HINDUSTAN PETROLEUM CORPORATION LIMITED

ADDL. TANKAGE PROJECT- BAHADURGARH TERMINAL

(AUTOMATION TENDER FOR BAHADURGARH TERMINAL)

NOTICE FOR INVITATION OF BIDS (DOMESTIC)
AUTOMATION TENDER FOR BAHADURGARH

ADDL. TANAKGE PROJECT – BAHADURGARH TERMINAL

M/s. Hindustan Petroleum Corporation Limited (HPCL) invites online bids(e-tender) from competent eligible Indian Manufacturers/authorized dealers in two parts under two bid systems having experience Design, supply, and erection and commissioning of instrumentation and automation system for oil Terminals for additional tankage project at Bahadurgarh Terminal (Haryana):

Bid Security	Time for completion
Rs. 4.65 Lakhs	8 months from LOA/PO

1.0 DETAILS OF BID DOCUMENT:

1. Bid Document No. :
2. Bid Due Date :
3. Unpriced Bid Opening :

2. HPCL reserves the right to extend price / purchase preference as per the prevailing guidelines of Government of India.
3. For further details including EMD, Bid Qualification Criteria etc please refer our web site: www.hindustanpetroleum.com

2.0 BIDDERS QUALIFICATION CRITERIA

Bidder shall meet both the criteria specified under 2.1 and 2.2.

2.1 FINANCIAL CRITERIA

Annual Turnover: Bidder shall meet the minimum prescribed pre-qualification requirement as follows:

Annual financial turnover, as per audited Balance Sheet and Profit & Loss account, in each of the last three financial years (2006-07, 2007-08 & 2008-09) ending March 09 shall be at least Rs. 3.5 Crores. For the vendors following financial year closing at the end of June or September or December, the last three financial years ending with the respective quarter of 2008 will be considered

2.2 TECHNICAL CRITERIA

Bidder during the last seven years, ending 31/11/2009 should have successfully completed any of the following:

a) One similar completed work costing not less than Rs. 1.86 Crores.

OR

b) Two similar completed works, each costing not less than Rs. 1.16 Crores.

OR

c) Three similar completed works each cost not less than Rs. 0.93 Crores.

Note: Similar works means Terminal Automation system comprising of Tank Truck Gantry automation and Tank farm management system in oil and gas industry.

2.3 Bidder shall furnish documentary evidence i.e. copies of work orders/ relevant pages of contract, completion certificate from their clients, annual reports containing audited balance sheets and profit & loss accounts statement, in the first instance itself, in support of their fulfilling the qualification criteria. HPCL reserve the right to complete the evaluation based on the details furnished without seeking any additional information

3.0 Parties who are affiliates of one another can decide which Affiliate will make a bid. Only one affiliate may submit a bid. Two or more affiliates are not permitted to make separate bids directly or indirectly. If 2 or more affiliates submit a bid, then any one or all of them are liable for disqualification. However up to 3 affiliates may make a joint bid as a consortium, and in which case the conditions applicable to a consortium shall apply to them. “Affiliate” of a Party shall mean any company or legal entity which:

(a) Controls either directly or indirectly a Party,

or

(b) Which is controlled directly or indirectly by a Party:

or

(c) Is directly or indirectly controlled by a company, legal entity or Partnership which directly or indirectly controls a Party. “Control” means actual control or ownership of at least a 50%

voting or other controlling interest that gives the power to direct, or cause the direction of, the management and material business decisions of the controlled entity.

4.0 Bids may be submitted by:

a) A single person/ entity (called sole bidder);

b) A newly formed incorporated joint venture (JV) which has not completed 3 financial years from the date of commencement of business;

c) A consortium (including an unincorporated JV) having a maximum of 3 (three) members;

d) An Indian arm of a foreign company.

5.0 Fulfillment of Eligibility criteria and certain additional conditions in respect of each of the above four types of bidders are stated below, respectively:

a) The sole bidder (including an incorporated JV which has completed 3 financial years after date of commencement of business) shall fulfil each eligibility criteria.

b) In case the bidder is a newly formed and incorporated joint venture and which has not completed three financial years from the date of commencement of business, then either the said JV shall fulfil each eligibility criteria or any one constituent member/ promoter of such a JV shall fulfil each eligibility criteria. If the bid is received with the proposal that one constituent member/ promoter fulfils each eligibility criteria, then this member/promoter shall be clearly identified and he/it shall assume all obligations under the contract and provide such comfort letter/guarantees as may be required by Owner. The guarantees shall cover inter alia the commitment of the member/ promoter to complete the entire work in all respects and in a timely fashion, being bound by all the obligations under the contract, an undertaking to provide all necessary technical and financial support to the JV to ensure completion of the contract when awarded, an undertaking not to withdraw from the JV till completion of the work, etc.

c) In case the bidder(s) is/are a consortium (including an unincorporated JV), then the following conditions shall apply:

1) Each member in a consortium may only be a legal entity and not an individual person;

2) The Bid shall specifically identify and describe each member of the consortium;

3) The consortium member descriptions shall indicate what type of legal entity the member is and its jurisdiction of incorporation (or of establishment as a legal entity other than as a

corporation) and provide evidence by a copy of the articles of incorporation (or equivalent documents);

4) One participant member of the consortium shall be identified as the "Prime member" and contracting entity for the consortium;

5) This prime member shall be solely responsible for all aspects of the Bid/ Proposal including the execution of all tasks and performance of all consortium obligations;

6) The prime member shall fulfill each eligibility criteria;

7) A commitment shall be given from each of the consortium members in the form of a letter signed by a duly authorized officer clearly identifying the role of the member in the Bid and the member's commitment to perform all relevant tasks and obligations in support of the Prime/lead member of the Consortium and a commitment not to withdraw from the consortium;

8) No change shall be permitted in the number, nature or share holding pattern of the Consortium members after pre-qualification, without the prior written permission of the Owner.

9) No change in project plans, timetables or pricing will be permitted as a consequence of any withdrawal or failure to perform by a consortium member;

10) No consortium member shall hold less than 25% stake in a consortium;

11) Entities which are affiliates of one another are allowed to bid either as a sole bidder or as a consortium only;

12) Any person or entity can bid either singly or as a member of only one consortium.

d) In case the bidder is an Indian arm (subsidiary, authorized agent, branch office or affiliate) of a foreign bidder, then the foreign bidder shall have to fulfill each eligibility criteria. If such foreign company desires that the contract be entered into with the Indian arm, then a proper back to back continuing (parent company) guarantee shall be provided by the foreign company clearly stating that in case of any failure of any supply or performance of the equipment, machinery, material or plant or completion of the work in all respects and as per the warranties/guarantees that may have been given, then the foreign company shall assume all obligations under the contract. Towards this purpose, it shall provide such comfort letter/guarantees as may be required by Owner. The guarantees shall cover inter alia the commitment of the foreign company to complete the entire work in all respects and in a timely fashion, being bound by all the obligations under the contract, an undertaking to provide all necessary technical and financial support to the Indian arm or to render the same themselves so as to ensure completion of the contract when awarded, an undertaking not to withdraw from the contract till completion of the work, etc.

6.0 Information/Documents required along with Bid:

1) Title, style and postal address of the firm.

2) Communication particulars including telephone numbers, fax numbers and e- mail address.
3) List of available technical manpower with their academic qualification, experience and fields of specialization.

4) Following documents are required to be submitted as proof of meeting bid qualification criteria:

• Audited Annual Reports/Balance sheet & Profit and Loss account for the financial year ending March'09. For the vendors, financial year closing at the end of June or September or December, the last 3 financial years ending with the respective quarter of 2008 will be considered. [Clause no. 2 .1 Financial]

5) Following documents are required to be submitted as proof of meeting bid qualification criteria [Clause no. 2 .2 (Technical)]

(a) Purchase/work Order copy/certified bills from client/owner / project consultants along with their completion certificate. The Purchase/work Order and completion certificate should mention the details of jobs carried out by the bidder so as to enable us to identify whether the bidder(s) meets the technical criteria stipulated above or not.

(b) Any other document certified by the owner/client (for whom the job has been executed) specifically having mention of the jobs carried out in support of meeting the technical criteria stipulated above.

© Other technical information as outlined in the Instruction to Bidders.

7.0 Bid Security (Earnest Money Deposit – EMD) & BID DOCUMENT FEE:

Bid Security shall be: Rs.4.65 Lakhs

Amount of Bid Security shall be in the form of Demand Draft (in favour of Hindustan Petroleum Corporation Limited, payable at New Delhi) / Bank Guarantee issued by scheduled bank (other than Cooperative Bank).

Bid document fee : Rs. 5000/-

Bid document fee shall be in the form of Demand draft (in favour of Hindustan Petroleum Corporation Limited, payable at New Delhi)

DETAILS OF BID DOCUMENT

7.1 Bid Document No. : **9000073-HD-10129**

7.2 Bid Due Date :Upto **1400 Hrs. (IST)** on **02 Feb,2010**

7.3 Last date of receipt of bidder's queries : **22 Jan, 2009**

7.4 Opening of Unpriced bid ONLINE: **From 1430 hrs on 02 Feb,2010**

8.0 BRIEF SCOPE OF SUPPLY :

Hindustan Petroleum Corporation Limited (HPCL) intends to augment its Terminal Automation system for automating the operations at their existing Petroleum Terminal at Bahadurgarh located in Haryana. This Petroleum terminal receive, store and dispatch various grades of products viz. MS, SKO, HSD, and ATF.

In order to meet the customer demand HPCL is augmenting its present capacity by constructing additional 11 tanks (Floating and Cone Roof tanks) and provide additional 4 loading points on the existing TT gantry for ATF loading.

Bahadurgarh Terminal is an Automated Terminal. The Terminal Automation System (TAS) at Bahadurgarh comprises of:

a) Tank Farm Management System with Radar Gauge, Average Temperature sensor and Pressure transmitter and Inventory management system in the control room for the existing tanks.
b) Tank Truck Loading System with PD meter, digital control valve, and density meter etc for truck loading.
c) Pump automation
d) PLC based automation system, LRC in control room, and Integration with the Pipeline receipt station.

This tender envisages:

a) Tank farm Automation System for the 13 tanks (11 new and 2 existing) and Tank truck loading operation for 4 loading arms at the existing operational TT Gantry

b) Integration of the new terminal automation system with the existing TAS system supplied by Daniel including Tank farm management system and to the Pipeline PLC supplied by Rockwell. The interface shall be done by the tenderer after proper consultation and permission of the above mentioned parties. The work shall only be deemed complete when the system stabilizes and the testing and commissioning be carried out as per the satisfaction of the Engineer in Charge.

c) The new integrated system with the new instrumentation shall work in tandem with the existing TAS system of the Terminal without any conflict and should control and monitor the entire terminal. Vendor shall get the inspection done of the equipments & materials from the approved Third Party Inspection agency as stipulated in the scope of Inspection of this document.

d) Supply and laying of power cables from MOV DB panel to MOVs (77 nos) as given below. Remaining 14 MOVs' for Tank No.1/2/3/11/12/13/14/15/16/27/29/30/31/32 shall be powered from the MOVDB room to the field by the HPCL**.** Supply and laying of control /communication cables from all new MOVs (77+14) to master control station for MOVs located in TAS control room and from Tank Wagon and Tank truck MCC rooms to PLC/TAS control room. This also includes supply and laying of OFC cable between TAS and Pipeline control station.

It may be noted that the quantities for the given location given in the BOQ are indicative and quantities can be revised for Bahadurgarh locations during execution of the P.O. Change order, if required may be issued based on total quantity of the item. Automation Bidder shall bear in mind that work in Bahadurgarh terminal shall be carried out to adhere to stipulated completion schedule. The tanks will be provided to the party during the period of June to Aug 2010.

Tank Details for Radar Gauges:

S No.	PRODUCT STORED	TANK TYPE	NOS	HEIGHT (in m)	DIAMETER (in m)
1	ATF (Aviation Turbine Fuel)	AG	4	14.0	22
2	BS II MS	AG	1	14.5	38
3	BS III MS	AG	1	14.5	34
4	INTERFACE-I	AG	1	9.8	15.5
5	INTERFACE-II	AG	1	8.5	15.0
6	ATF (Aviation Turbine Fuel)	UG	1	70 kl Capacity	
7	BS II HSD	AG	2	14.0	36
8	BS III HSD	AG	1	14.0	30
9	SSKO	AG	2	10.0	12

The existing TAS has to be upgraded to accommodate additional tankages. The Terminal Automation System, hereafter called the system or "TAS", shall be capable of handling entire terminal operation as identified in the scope of this tender document. All functions defined in this tender document shall

be performed in an integrated cohesive manner. The architecture of the system shall accommodate both functional and physical distribution of the hardware, software, and database over the terminal while allowing access to the distributed data. The TAS shall utilize a modular architecture to permit wide range of system configurations and facilitate system flexibility and expendability. It shall include real-time control at the field instrumentation level, supervisory control, access control of Tank Truck, transaction processing, logic controls, pump control and product inventory accounting at terminal/depot level and comprehensive product movement accounting and reporting at the management level.

Before submitting techno commercial bids the bidders shall visit and study the existing scheme of Tank truck loading, pump control, Tank farm, Valve sub-system and other aspects of daily plant operation in Bahadurgarh. Any job, material, equipment, instrument etc not explicitly mentioned in the Schedule of quantity but required to be provided to meet the functional & technical requirement as mentioned in this tender shall be in the scope of Vendor.

The following are the major milestones included in the Completion Period

- Datasheet Approval
- Functional Design Specification
- Factory Acceptance Test
- Site Execution
- Commissioning & Trial Runs
- Site Acceptance Test including compliance

GENERAL

The major operational areas identified for automation are

a) Tank farm operation
b) Tank truck loading operation

All these operations shall be logically integrated through Servers, Programmable Logic Controller, other field & control room equipments, instruments, materials etc proposed to be provided & integrated as a system as defined under the scope of this tender document to ensure accurate, seamless & secured operation and data exchange.

Automation facilities have been envisaged with a view to ensure safety and ease the operation of most critical areas of the terminals/depots like product receipt, storage and loading.

Successful Bidder hereafter referred as Vendor shall make sure that commissioning of all the instruments / equipment and Site Acceptance Test (SAT) shall be completed as per the completion schedule mentioned in Special Terms & Condition. Stabilization period is not included in the completion period.

The terminal is automated with operations in various shifts. Hence, the Vendor shall carry out day to day activity after taking necessary hot/ cold work permits. Vendor shall appoint a Safety supervisor, apart from the Work Supervisor, who shall be available throughout the working time and shall be responsible for taking permits and observing safety and security regulation of the terminal. Vendor shall deploy at least one qualified and experienced (1 to 2 yrs) instrumentation/electrical/mechanical engineer exclusively at each site during the entire execution period as the work supervisor.

It shall be the endeavor of HPCL to provide work permit beyond normal operating hour to the extent possible. However all the work, except those which necessarily requires shut down at Gantry, shall be preferably planned for completion by the Vendor within the normal working hour. Vendor shall be provided suitable area to construct the fabrication yard in the de-licensed area within the terminal premises to carry out prefabrication job. For works which may require total/ part shut down of the Gantry operation or which may hamper the normal loading operation, the automation vendor is required to work during night hours/ holidays and during such times when it does not hamper the operation of the terminal. Prior planning & permission from the Terminal manager shall be obtained. All hot work shall be planned (min 45 days in advance for tanks & 21 days in advance for Gantry/ header job) and discussed with the Terminal manager and shall be carried out on Sundays / holidays to cause minimum impact on the regular operation on working days. All Work shall be planned without interruption to terminal normal working. No extra claim shall be admissible for night working, holiday working or extra hours working if permission for the same is given by HPCL.

As the in-situ mechanical modification job can be carried out only during non-working times/ Sundays/ holidays, Vendor shall mobilize its mechanical personnel immediately after placement of order to carry out modification job in such a manner that all jobs like header modification for BAE installation, Gantry extension wherever required, Tank Nozzle modification for PT, MST, etc. are completed by the time supply of these equipments & instruments are expected. The modification shall be complete in all respect after providing spool pieces, valves etc. as required so that equipment, instruments can be mounted immediately on receipt. Only those modifications like metering system, Radar Gauge which may require actual measurement or instruments /equipments at site may be taken up after receipt of those equipments, instruments

The Vendor shall ensure all the safety procedures are followed during the above activity. The safety procedures are listed elsewhere in the specification. Vendor shall submit the fortnightly safety report for each location

SCOPE OF WORK

This document serves as detailed specification for the Vendor as minimum requirement for automating the operations at the Terminals. Vendor shall execute the work on turnkey basis & shall design, supply, install, commission & stabilize the system as per the deliverables listed in this

document. Notwithstanding the sub divisions of the tender document into several sections and volumes, every part of each shall be deemed to be supplementary of every other part and shall be read with and into the contract.

Vendor's scope of work in each terminal & depot shall include but not limited to the following:

Interfacing with pipeline control room

The philosophy for operating MOV (Tank Receipt and Pipeline Receipt)/interface between pipeline PLC and TAS PLC is envisaged as follows-

1. Communication through RS 485 Modbus
2. Communication through hard wiring

The following information is sent to pipeline PLC from TAS via RS 485 Modbus

1. MOV Status-Open/Close
2. Product level –Continuous
3. Product level (Alarm Status)-High High/High/Low Low/Low
4. Pipeline Receipt/Dispatch MOV Status-Open/Close
5. Fire water tank-water level –Continuous
6. Fire water header pressure switch-Status

Tank in Receipt Mode:-

- TAS during receipt mode closes all delivery valve of the tanks and open receipt valve of the tank and use information.
- TAS to inform pipeline control room regarding receipt mode operation
- The control shifts to pipeline PLC(Rockwell)
- After completion of the receipt of the product into the tank the system goes in dormant mode.
- Pipeline control room advises or informs TAS control room upon completion of the operation.
- TAS takes over operation

Tank in Dispatch Mode:-

- TAS closes all receipt valves (i.e. TTG/TWG/RC MOV'S) and put the system in dormant mode
- Inform pipeline control room about dormant mode.
- Pipeline control station takes over dispatch operation.
- After completion of dispatch of product into the pipeline the system goes in dormant mode.
- Pipeline control room advices or informs TAS control room upon completion of operation.
- TAS takes over operation.
- MOV status of tank dispatch valve will be made available to TAS.

The following information is hardwired between pipeline PLC and TAS PLC-

1. MOV status of tank body valves-Open/Close

   The tank dispatch valves of 14 nos MOVs listed shall be shall be controlled by the pipeline PLC. Pipeline control room shall send the opening/ closing command for these valves in the appropriate mode.

   All MOV's of the Rotork make are multi dropped and connected to redundancy master station. All MOV's of Rotork make are multi dropped and connected to redundant master station. All the MOV's of Limitorque make are multi-dropped and connected to communication card in the PLC/ through terminal server control room.

   As the command from the pipeline PLC for opening the MOV of a particular product is received at TAS, suitable command for opening the MOV is given by the TAS PLC to open the MOV. The MOV's which are identified for pipeline control is not operated by TAs without the permission from pipeline PLC.

- The vendor shall make a site visit before quoting.

- For the purpose of the estimating the cable a drawing is provided in which the control room, MCC room are clearly shown. The cabling is provided from the MCC room to the two control rooms and vice versa as required.
- Incase TAS is down or communication through RS 485 Modbus is down, the pipeline PLC can still control the operation of these MOV's through hardwiring, open/close command of each MOV is hardwired to TAS PLC as digital input

- Complete design and system engineering of the new system and its integration with the existing TAS system by M/s Advanced Systek and the pipeline PLC supplied by M/s Rockwell Automation of the Bahadurgarh Terminal to ensure the deliverables are achieved in line with technical & functional requirement laid down in this tender document. This will include the development of the patch software if required for the proper integration of the new system with the existing system TAS and the PLC of the pipeline control room.

- Supply, installation, testing & commissioning of all the items to make the system complete in all respects, to meet the functional & technical requirements as spelt out in this tender document. Balance items which are not explicitly spelt out in the Schedule of quantities but are required for the completeness of the work like shall also be deemed to be included under the respective items. No separate payment shall be made for such items.

- Packing, forwarding, transportation, custom clearance, insurance, storage etc. of the System.

- The warrantee provided by the Automation Vendor shall be 2 year after which the AMC will be for 3 years.

- Development of requisite software in consultation with the client / consultant and testing of the same at Vendor's works during Factory acceptance Test. TAS Software for the given locations should have a configurable module to cater to this requirement.
- Trial run, Site acceptance test, stabilization of the system
- Cat 6 cables if any shall be supplied and installed by the Automation Vendor at no extra cost.
- Supply, laying, testing & termination of all Power, Control, Signal cables & all other type of special/ regular, required cables for all the Automation Equipments & instruments including for all the existing free issue items which are being integrated as per the scope of this document. Apart from the automation Equipments & instruments, Cables from MCC room to UPS via existing DG set for all equipments connected on the UPS & AC (2 No's) or any other TAS equipments will be in the scope of the Vendor.
- Supply & installation of all Erection materials including consumables & non consumables as galvanized and perforated cable trays with cover, cable racks, conduits, junction boxes, pull boxes, clamps, compression fitting, cable glands, all instrument supports, electrodes and other materials for completeness of erection. The erection materials shall also be suitable to the hazardous area classification.
- Construction of Cable trench in soft soil, hard soil, rocky strata, RCC etc including supply & laying of NP 2 Hume pipes below all road crossing, GI conduit inside tank farm, as required
- Any modification required in the existing pipeline, loading platform, loading arms or tanks for mounting of instruments & equipments like Metering system, Hybrid Tank Gauging System, Header line equipments etc. inclusive of supply of pipes, fittings, valves etc. Vendor shall fabricate, erect, lay new 3" pipeline including supply of pipes, fittings, valves etc & painting from existing tapping onwards. The limit of modification/laying of new 3" pipeline for Metering system shall start downstream from the 3" tapping provided on the header line inside the Gantry. The vendor scope shall also include draining & collecting the oil safely from the pipeline, flushing, degassing, hydro-testing, painting etc. The existing 3" isolation valves at the Gantry may be re-used as directed by HPCL. All these modification job, dismantling, re-installation etc. including supply of pipes, fittings, consumable, hardware material etc. shall be part of respective instruments & equipment. No separate payment shall be made for these items.
- Submission of all data sheets along with OEM's confirmation on Product life cycle, his support for Backup engineering & spares
- Modification in the existing Control Room Cable Trench, if required.
- Sealing of cables / tube entries into the control room after laying and testing of all tubes, cables etc.

- Complete earthing of the Terminal Automation System including providing minimum 04 Nos. Earth pit (spread across the Terminal premises) to get the resistance as stipulated in this document & as per OISD norms. Any additional earth pits required to achieve the required resistance shall be provided by the Vendor at no extra cost.

- Preparation & submission of all the required Documents including as-built drawings, documents as per the execution of work at site and submission to HPCL

- Execution of Warranty, Comprehensive Annual Maintenance Contract, etc.

- Supply of special tools, test equipments, consumables required for installation, testing, calibration and commissioning of the system. All commissioning and start-up spares required up to commissioning, system acceptance and handing over of the system to the HPCL shall be in the vendor's scope.

- Certification from the OEM for correct installation & its terminations, if applicable, at the site for all of the following equipment, instruments

    - Radar Gauges & its accessories
    - Metering System
    - DCV
    - Loading Arm
    - Bulk Air Eliminator
    - Densitometer

- Proper installation and alignment of line / vessels / equipment mounted instruments like valve, PD meters, etc.

- Drilling holes on all panels, power distribution panel, control panels, etc. for cables / glands.

- Grounding of shielded cables to respective instrument earth bus provided in the control room / local panel.

- Any other instrument/ equipment/ service, which is not explicitly mentioned in this document or in the Schedule of Quantity/ price bid but deemed necessary for the successful operation of the system complete in all respects, shall be in vendor's scope.

- The functional & operational requirements as specified in this tender might undergo revisions as per the individual location requirement during detail design engineering, functional design

specification, and Factory acceptance test or during execution. The vendor must ensure that all these changes are incorporated & demonstrated during Site Acceptance Test.

- Dismantling of existing instruments, equipment, materials including its cabling, supports, JBs, associated accessories, paraphernalia items etc required before mounting of new instruments, equipments if required. The dismantling has to be carried out in a planned and approved manner not affecting the operation of the plant. All dismantled equipments, instruments; material etc shall be stacked in the ware house & shall be handed over to HPCL. Any damage done to the existing instrument, equipment, materials which may affect its performance shall be made good by the Vendor at no extra cost.
- Dismantling & re-installation of Isolation Valves, loading Arms, wherever required
- All Civil works required for execution of TAS including supply of all materials required shall be supplied by Vendor.
- All mechanical, electrical jobs required for TAS shall be in Vendor's scope.
- Calibration & Verification of all equipments & instruments
- All documentations, drawings & test procedure
- Construction of temporary Storage Shed for storing the all the equipment, material, instruments etc & dismantling the same after completion of work.
- Third Party Inspection of the instruments, equipments & materials as per the approved QAP.
- All road permits from Sales Tax authorities for importing/movement of all these equipment, instruments, material to any of these locations.
- Any changes, modification in the System hardware, software & MMI shall be implemented at all the locations until unless the same is location specific.
- The vendor shall be fully responsible for proper selection of equipment's, engineering, performance and successful operation of the complete system including all bought out equipment, subsystems supplied by them when integrated with the overall Automation System meeting the functional requirements.
- Vendor shall offer the services of the competent installation team which would install the equipment / instruments, lay the interconnecting cabling, check out, testing and commissioning the system.
- All technical personnel assigned to the site by the Vendor shall be fully conversant with the supplied system and software package, and shall have both hardware and software capability

to bring the system on line quickly and efficiently with a minimum interference with other concurrent construction and commissioning activities.

- Strict adherence to HPCL's Safety, Health & Environment policy

- Cable Description:- The cabling estimate(For all type of cables) to include the following
  - Tank farm to TAS Control room and the pipeline control room
  - Tank Truck loading to TAS Control room
  - Cable between Pipeline control room and TAS control room
  - Cable from MCC rooms to TAS and Pipeline Control room
  - Cables from TT loading and Wagon unloading pump houses to TAS control room via MCC rooms
  - Laying of Power cable for the MOV's as per the following table

TANK NO	PRODUCT	DESCRIPTION	GGSRL	APT
1	ULHSD	AE	1	NIL
2	ULHSD	AE	1	NIL
3	ULHSD	AE	1	NIL
4	HSD	AE	1	NIL
5	HSD	AE	1	NIL
6	HSD	AE	1	NIL
7	HSD	AE	1	NIL
8	MS	AE	1	NIL
9	MS	AE	1	NIL
10	MS	AE	1	NIL
11	ULMS	AE	1	NIL
12	ULMS	AE	1	NIL
13	ULMS	AE	1	NIL
14	SKO	AE	1	NIL
15	SKO	AE	1	NIL
16	SKO	AE	1	NIL
22	ATF	APT	1	3
23	ATF	APT	1	3
24	ATF	APT	1	3
25	ATF	APT	1	3
26	UL	APT	1	4
27	ULMS	APT	1	4
28	HSD	GGSR	5	NIL
29	ULHSD	GGSR	5	NIL
30	ULHSD	GGSR	5	NIL

31	**SSKO**	**GGSR**	**3**	**NIL**
32	**SSKO**	**GGSR**	**3**	**NIL**
			43	**20**

AE= Already existing
APT= Additional Product Tankage
GGSR= GGSR Project

In addition to the above table there are 14 more MOV's for Tank No.1/ 2/ 3/ 11/ 12/ 13/ 14/ 15/ 16/ 27/ 29/ 30/ 31/ 32 which are to be powered from the same MOVDB room. Thus total 77 nos. of MOV'S are to be powered from the power panel in the MOVDB room. The control cable to these MOV's (77 nos.) shall be from the TAS control room (Vendor's Scope) and its integration will be in the scope of the of Automation Vendor.

The remaining 14 MOVs' for Tank No.1/2/3/11/12/13/14/15/16/27/29/30/31/32 shall be powered from the MOVDB room to the field by the HPCL. However their Status Open/Close shall be available in the TAS and the control cable to the pipeline control room shall be under the automation vendor scope.

- Note the power cable to each of this MOV's should be separate.
- The Scope of the automation vendor also to include the laying installation and commissioning of the OFC cable between the TAS control room and pipeline control room.
- The scope of this tender also includes the end termination and supply and laying of the power cables for 77 MOVs from the MOVDB room and control cable required from the TAS (77 mov's).
- The master control station as per the line item shall be designed by the vendor for the above mentioned 73 MOV's assuming that 20% slots remain spare.
- The scope includes the integration of the 3 TTF pump to the existing TAS – which comprises of 1 VFD and 3 Soft-starters. The 3 TWG pumps and the one vertical pump for underground ATF Tank.

DESIGN CRITERIA

Vendor shall note the following minimum requirement for designing the facilities. These shall be read in conjunction with the function & technical requirements as specified elsewhere in this document

The system is required to be designed for following broad parameters:

Maximum temperature	**:**	55 Degree centigrade.

Minimum temperature	:	0 Deg
Maximum Relative humidity	:	95 %.
Petroleum products to be loaded	:	ATF
Products	:	MS, HSD, SKO, ATF
Products Characteristics	:	As given below for MS, HSD, SKO & ATF. For other special products the same may be given after placement of PO
Flow rate	:	Normal flow rate 150 to 1200 LPM at Loading point. Maximum Header Flow Rate will be when all the pumps for that particular product are operating & minimum Header flow rate when the smallest capacity pump for that particular product is operating.
Working pressure	:	1 Kg/ Sq cm to 10 Kg/ Sq Cm
Design pressure	:	15 Kg./Sq.Cm

NOTE: All material/ equipment shall be suitable for operation & give the desired technical & functional requirement in all type of atmosphere which are likely to be encountered in some of the locations.

PRODUCT CHARACTERSTICS

PARAMETERS	MS	SKO	HSD	FO	LDO	ATF
Specific Gravity	0.7-0.75	0.75-0.8	0.8-0.9	0.9-0.97	0.89-0.92	0.75-0.8
Viscosity @38Deg C	1.1CST	1.2CST	2.54-4.0 CST	80 CST @50 ^{O} C	7.5-13.7	1.2

Brief Scope of supply shall be as follows:

Address: HPCL Bahadurgarh Terminal

Asaudha, Bahadurgarh,
Distt : Jhajjar, Haryana – 124 505

9.0 Salient Features of Bidding Document:

a) Bidding Document No. :
b) Bid Security (Earnest Money Deposit – EMD):
c) Last Date and Time of Submission of Bids:
d) Opening of Techno-commercial (Unpriced) Bid:

10.0 Bidding document cab be downloaded & submitted online by interested Bidders in our e-procurement website http://eproc.hpcl.co.in.

Bidder can also download the Bid Document from HPCL's Website http://www.hindustanpetroleum.com .

Amount of Bid Security (EMD) shall be in the form of Demand Draft from any PSU/Scheduled bank (Other than cooperative Banks) in favour of Hindustan Petroleum Corporation Limited, payable at New Delhi) valid for six months from due date of tender should be physically handed over before due date of Tender should be physically handed over before due date & time of tender to person mentioned below:

I.K.Sawhney, Chief Manager – Procurement / Sukanta Das – Manager-Procurement,
Hindustan Petroleum Corporation Limited,
GGSRPEP Office, 8th Floor, Scope Minar, Laxmi Nagar, Delhi – 92.
Tel: 0091–11– 22041104/ 22041341

Bids of Bidders whose Original Bid Security (EMD amount) & Bid document fee is not received physically before due date & time of tender shall be out rightly rejected. Bid Security (EMD amount) can also be submitted in the form of Bank Guarantee from PSU/ Scheduled banks as per format attached in the Tender valid for 6 months from the date of Tender.

11.0 DELIVERY SCHEDULE:

The entire supply at Bahadurgarh Terminal Site shall be completed as per the completion schedule given in Chapter- 7.

12.0 GENERAL:

12.1 No extension in the bid due date shall be considered on account of delay in receipt of the bid document.

12.2 Bidder to note that prices are to be quoted online as per Format provided in the price schedule formats along with the tender without any conditions. Price bids submitted in any other format and conditional price bids will be liable to be rejected.

12.3 HPCL will not be responsible for cost incurred in preparation and delivery of bids, regardless of the conduct of outcome of the bidding process.

12.4 HPCL reserves the right to reject any or all the bids received at its discretion without assigning any reason whatsoever.

12.5 Bids received after stipulated due date and time, due to any reasons whatsoever, will not be considered.

12.6 HPCL will follow purchase and price preference policies as per prevailing guidelines of Government of India.

12.7 In case of any queries regarding the tender, the same may be addressed to:

Shri D.K Biswas
Senior Manager-Projects
HPCL Bahadurgarh Terminal
Asaudha, Bahadurgarh,
Distt : Jhajjar, Haryana – 124 505