

**GOVERNMENT OF INDIA  
DEPARTMENT OF SPACE  
LIQUID PROPULSION SYSTEMS CENTRE  
VALIAMALA, TRIVANDRUM 695547, KERALA  
PURCHASE & STORES**

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Date :16/10/2017

**INVITATION TO TENDER**

M/s

000000

Our Ref No : TE31 2017-030244-01

Tender Due: 16:00 Hrs ISTon 02/11/2017

Dear Sirs,

Please submit your sealed quotation , in the Tender Form enclosed here along with the descriptive catalogues / pamphlets /literature ,superscribed with Our Ref.No. and Due Date for the supply of the following items as per the terms & conditions mentioned in Annexure( Form No: ENCLOSED )

S.No.	Description of Items with Specifications	Unit	Quantity
1	Work Package for Assembly & Testing Activities at various facilities of TPTG for 3 years	LOT	1

**DELIVERY AT:** LPSC, VALIAMALA

**MODE OF DESPATCH** ON SITE

**DUTY EXEMPTIONS** EXEMPTED

**SPECIAL INSTRUCTIONS GIVEN BELOW**

**SPECIFIC TERMS** ENCLOSED

**INSTRUCTIONS TO TENDERERS:**

- Note: 1. REQUEST FOR PROPOSAL as per Annexure-I.  
2. Instruction for TWO PART TENDERS as per Annexure-II.  
3. A Compliance matrix for commercial terms is attached as Annexure-III, which shall be filled and furnished along with part-1, Techno-commercial bid(without price).  
4. General terms and conditions as per Annexure-IV.

— Sd/- —

For and on behalf of the President of India  
The Purchaser

**WORK PACKAGE FOR ASSEMBLY AND TESTING  
ACTIVITIES AT VARIOUS FACILITIES OF TPTG**

**REQUEST FOR PROPOSAL**

**THRUSTER PRODUCTIONISATION & TESTING GROUP (TPTG)  
ESEG/ESES  
LIQUID PROPULSION SYSTEMS CENTRE  
VALIAMALA, THIRUVANANTHAPURAM  
695547**

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## **1. INTRODUCTION**

Thruster Productionisation & Testing Group (TPTG) is responsible for the assembly & testing activities of all the Pressurefed engines for both Satellite & launch vehicle projects. This group consists of four major divisions viz., Assembly, Integration & Testing (AIT), Silicide coating & Chemical Lab (SC&CL), Low Thrust Engine Test facility (LTET-V) located at Valiamala and Low Thrust Engine Test Facility (LTET-T) located at Thumba, VSSC.

## **2. SCOPE OF WORK**

The group has the following major facilities.

- a) Assembly Integration & Testing (AIT)
- b) Silicide coating & Chemical Lab (SC&CL)
- c) Low Thrust Engine Test facility (LTET-V)
- d) Low Thrust Engine Test Facility (LTET-TERLS)

The major activities being carried out in these facilities are as given below.

### ***2.1. Activities at AIT Clean room & Fitting lab***

- 2.1.1. Cleaning, Assembly and dismantling of injector parts
- 2.1.2. Water calibration & tuning (Both Injector & thruster)
- 2.1.3. Assembly of thrusters
- 2.1.4. Proof pressure test and leak test
- 2.1.5. He leak test
- 2.1.6. PS4 divergent Assembly
- 2.1.7. Vibration Test
- 2.1.8. PS4 Assembly & leak test @ IPRC
- 2.1.9. Gasket cutting
- 2.1.10. Electrical test
- 2.1.11. Fitting work
- 2.1.12. Liquid contamination test
- 2.1.13. Lapping & ultrasonic cleaning of injector
- 2.1.14. IPA flushing & Vacuum Drying
- 2.1.15. Facility maintenance & Calibration of Equipments/Instruments

### ***2.2. Activities at Silicide Coating & Chemical Lab***

- 2.2.1. Carry out Silicide coating of LAM, AOCs engine chambers & PS4 Divergents
- 2.2.2. Chemical surface treatment operations like Pickling, Passivation, Decontamination, etc., on different components
- 2.2.3. Propellant Transportation and Storage from IPRC and Servicing to LTET Valiamala

### **2.3. Activities at LTET-V (Mechanical system)**

- 2.3.1. Observation & Identification of the test article
- 2.3.2. Thermocouple bead preparation
- 2.3.3. Thermocouple welding & checking of continuity
- 2.3.4. Assembly of thruster to test facility
- 2.3.5. Assembly of transducers
- 2.3.6. Leak test of facility for hot test
- 2.3.7. Propellant loading
- 2.3.8. Safety preparation
- 2.3.9. Vacuum pumping system operation
- 2.3.10. Hot test
- 2.3.11. Water ejector operation
- 2.3.12. Propellant feed line purging
- 2.3.13. Disassembly of tested hardware
- 2.3.14. Assembly for purging
- 2.3.15. Purging with water & N2 gas
- 2.3.16. Propellant transportation
- 2.3.17. Thruster transportation
- 2.3.18. Gasket cutting
- 2.3.19. Facility maintenance

### **2.4. Activities at LTET-V (Electronics/Instrumentation)**

- 2.4.1. Preparation of Instrumentation system for Hot test activity
- 2.4.2. Preparation of Surveillance system
- 2.4.3. Health test of hardware when received (Resistance & Insulation measurement)
- 2.4.4. Preparation for hot test activities (ambient testing of all measurement and command channels)
- 2.4.5. Calibration of measurement channels
- 2.4.6. Interfacing of transducer with hardware
- 2.4.7. Validation of measurement channels
- 2.4.8. Operation of command system for hot test activities
- 2.4.9. Acquisition of test data during hot test at low & high sampling
- 2.4.10. Offline data processing
- 2.4.11. Post test operations
- 2.4.12. Electrical functional testing of AOCS, LAM & 800N Engine at ESEG clean Room
- 2.4.13. Periodic calibration of Measurement and Command channels to meet ISO
- 2.4.14. Service and Maintenance of Instrumentation related Equipment and channels

### **2.5. Activities at LTET-T (Mechanical system)**

- 2.5.1. Observation & Identification of the test article
- 2.5.2. Assembly of thruster for hot test
- 2.5.3. Assembly of transducers
- 2.5.4. Leak test of facility for hot test
- 2.5.5. Propellant loading
- 2.5.6. Safety preparation
- 2.5.7. Vacuum pumping system operation
- 2.5.8. Hot test
- 2.5.9. Water ejector operation
- 2.5.10. Propellant feed line purging
- 2.5.11. Disassembly of tested hardware
- 2.5.12. Assembly for purging
- 2.5.13. Purging with water & N2 gas
- 2.5.14. Propellant Transfer
- 2.5.15. Thruster transportation after hot test
- 2.5.16. Gasket cutting
- 2.5.17. Facility maintenance
- 2.5.18. LN2 Operation
- 2.5.19. Propellant loading and unloading activities

### **2.6. Activities at LTET(T) –(Electronics/Instrumentation)**

- 2.6.1. Preparation of Instrumentation system for Hot test activity
- 2.6.2. Preparation of Surveillance system
- 2.6.3. Health check of hardware when received (Resistance & Insulation measurement)
- 2.6.4. Temperature sensor continuity test after welding with hardware
- 2.6.5. Preparation for hot test activities (ambient testing of all measurement and command channels)
- 2.6.6. Calibration of measurement channels
- 2.6.7. Interfacing of transducer with hardware
- 2.6.8. Validation of measurement channels
- 2.6.9. Operation of command system for hot test activities
- 2.6.10. Preparation for data acquisition, sequence generation and execution of check list
- 2.6.11. Acquisition of test data during hot test at low & high sampling
- 2.6.12. Offline data processing
- 2.6.13. Post-test operations

### 3. Man hour Estimate

The approximate requirement of man hours per annum for each major facility/activity is given in the table below.

#### AIT

Sl No	Activity	No of Units	Man hour per unit	Man hour per annum
1	Cleaning , assembly and dismantling of injector parts	600	2	1200
2	Water calibration & tuning (Both Injector & thruster)	800	2	1600
3	Assembly of thrusters	400	3	1200
4	Proof pressure test and leak test	400	2	800
5	He leak test	250	2	500
6	PS4 divergent Assembly	40	6	240
7	Vibration Test	300	4	1200
8	PS4 Assembly & leak test @ IPRC Mahendragiri	60	8	480
9	Gasket cutting	100	5	500
10	Electrical test	300	2	600
11	Fitting work	250	2	500
12	Liquid contamination test	200	2	400
13	Lapping & ultrasonic cleaning of injector	200	3	600
14	IPA flushing & Vacuum Drying	300	2	600
15	Facility maintenance & Calibration of equipments	100	3	300
	Total man hour/annum			10720
	<b>Estimated total man days per annum</b>			<b>1340</b>

**Silicide Coating & Chemical Lab (SC&CL)**  
**SILICIDE COATING**

Sl No	Activity	Man hour per batch	Man hour per annum X 32	Remarks
1	Hardware identification & Visual inspection of AOCS chambers, LAM chambers & PS4 Divergents	3	96	Batch process
2	Hardware Cleaning	5	160	
3	Pre coating Mass measurement	2	64	
4	Hardware Pickling	5	160	AOCS : 3 batches
5	Post pickling activities	2	64	
6	Mass measurement	2	64	LAM : 3 batches
7	Transportation to Inspection lab & back	1	32	PS4 Divergents : 10 batches
8	Slurry agitation	24	768	
9	Green coating activities	4	128	Total : 16 batches
10	Trimming of hardware	2	64	
11	Mass measurement	2	64	For two Diffusion cycle 32 batches
12	Diffusion	8	256	
13	Polishing	3	96	
14	Mass measurement	2	64	
15	Dermitron thickness measurement	4	128	
	<b>Total Man hour</b>		<b>2208</b>	



## CHEMICAL LAB

SI No	Activity	Man hour per batch	Man hour per annum	Remarks
1	Components identification & Visual inspection	2	390	Total no.of components per year:7800 out of which 480 Nos of Pickling, 6600 Nos of Passivation, 600 Nos of Decontamination, 60 Nos of Neutralisation& 60 Nos of Etching. For this calculation 40 Nos of components taken as a batch.  <b>Hence, 195 Nos. of batch/ Annum</b>
2	Cleaning	2	390	
3	Pickling	2	24	
4	Passivation	2	330	
5	Decontamination	2	30	
6	Neutralisation	2	120	
7	Etching	1	3	
8	Post Cleaning	12	390	
9	Drying	4	195	
10	Neutralisation of Spent Solution	2	24	
11	Solution Preparation	2	24	
	<b>Total Man hour</b>		<b>1920</b>	

## PROPELLANT TRANSPORTATION & RELATED ACTIVITIES

SI No	Activity	Man hour per annum	Remarks
1	Transportation of 600L propellants includes 2 Nos each of MMH and N2O4 between IPRC Mahendragiri & LTET TERLS	240	
2	Transportation of 16L capacity propellants total of 6 Nos between LTET TERLS & LTET Valiamala Test Facility.	64	
3	Propellant Neutralization kept at Catch tanks	192	
4	Chemical filling Scrubber units	16	
	<b>Total Man hour</b>	<b>512</b>	
	<b>Total Man days for SC&amp;CL per annum (2208+1920+512)/8</b>	<b>580</b>	

**LTET-V****Low Thrust Engine Test facility, LTET-VMC (Mechanical)**

Sl.No.	Nature of work	Man Hr/unit	Total No. of units	Total man Hour/year
1.	Observation & Identification	0.25	160	40
2.	Thermocouple bead preparation	1	160	160
3.	Thermocouple welding & checking	2	160	320
4.	Assembly of thruster for hot test	1.5	160	240
5.	Assembly of PC transducer	1	160	160
6.	Leak test for hot test	0.75	160	120
7.	Propellant loading	1	160	160
8.	Safety preparation	0.5	160	80
9.	Vacuum pumping system operation	1.5	160	240
10.	Hot test	4	160	640
11.	Water ejector operation	0.75	160	120
12.	Propellant feed line purging	1	160	160
13.	Disassembly of tested hardware	0.75	160	120
14.	Assembly for purging	0.75	160	120
15.	Purging with water & N2 gas	1.5	160	240
16.	Propellant Transfer	1	160	160
17.	Thruster Transportation after hot test	0.5	160	80
18.	Gasket cutting	1	160	160
19.	Facility maintenance			480
	<b>Total man hour</b>			<b>3800</b>
	<b>Total Man days per annum</b>			<b>475</b>

**Low Thrust Engine Test facility, LTET-VMC (Instrumentation)**

Sl.No	Nature of work	Man Hr/unit	Total No. of units	Total man Hour/year
1.	Preparation of Instrumentation system for Hot test activity	1.5	160	240
2.	Preparation of Surveillance system	0.5	160	80
3.	Health test of hardware when received (Resistance & Insulation measurement)	0.5	160	80
4.	Preparation for hot test activities (ambient testing of all measurement and command channels)	2	160	320
5.	Calibration of measurement channels	2	160	320
6.	Interfacing of transducer with hardware	1	160	160
7.	Validation of measurement channels	1	160	160
8.	Operation of command system for hot test activities	0.75	160	120
9.	Acquisition of test data during hot test at low & high sampling	8	160	1280
10.	Offline data processing	4	160	640
11.	Post test operations	2	160	320
12.	Electrical functional testing of AOCS, LAM & 800N Engine at ESEG clean Room	5	250	1250
13.	Periodic calibration of Measurement and Command channels to meet ISO (3 Weeks)			147
14.	Service and Maintenance of Instrumentation related Equipment and channels			210
	<b>Total man hour required</b>			<b>5327</b>
	<b>Total Man days per annum</b>			<b>665</b>

**LTET-T****Low Thrust Engine Test facility, LTET-TERLS (Mechanical)**

Sl.No.	Nature of work	Man Hr/unit	Total No. of units	Total man Hour/year
1.	Observation & Identification	0.25	160	40
2.	Assembly of thruster for hot test	1.5	160	240
3.	Assembly of PC transducer	1	160	160
4.	Leak test for hot test	0.75	160	120
5.	Propellant loading	1	160	160
6.	Safety preparation	0.5	160	80
7.	Vacuum pumping system operation	1.5	160	240
8.	Hot test	4	160	640
9.	Water ejector operation	0.75	160	120
10.	Propellant feed line purging	1	160	160
11.	Disassembly of tested hardware	0.75	160	120
12.	Assembly for purging	0.75	160	120
13.	Purging with water & N2 gas	1.5	160	240
14.	Propellant Transfer	1	160	160
15.	Thruster Transportation after hot test	0.5	160	80
16.	Gasket cutting	1	160	160
17.	Facility maintenance			480
18.	LN2 Operation	3	160	480
19.	Propellant loading and unloading activities			480
	Total man hour			4280
	Total Man days per annum			535

Low Thrust Engine Test facility, LTET-TERLS (Electronics/Instrumentation)

Sl.No.	Nature of work	Man Hr/unit	No. of units /Year	Total man Hour/year
1.	Preparation of Instrumentation system for Hot test activity	1.5	180	270
2.	Preparation of Surveillance system	0.5	180	90
3.	Health test of hardware when received (Resistance & Insulation measurement)	0.5	180	90
4.	Temperature sensor continuity test after welding with hardware	0.5	180	90
5.	Preparation for hot test activities (ambient testing of all measurement and command channels)	2.5	180	450
6.	Calibration of measurement channels	2	180	360
7.	Interfacing of transducer with hardware	1	180	180
8.	Validation of measurement channels	1	180	180
9.	Operation of command system for hot test activities	1	180	180
10.	Preparation for data acquisition, sequence generation and execution of check list	1	180	180
11.	Acquisition of test data during hot test at low & high sampling	10	180	1800
12.	Offline data processing	4	180	720
13.	Post-test operations	4	180	720
<b>Total man hour required</b>				<b>5310</b>
<b>Total Man days per annum</b>				<b>663</b>

#### **4. Responsibilities**

##### **4.1. LPSC Responsibility**

- 4.1.1. LPSC shall provide all the machined parts, required hardware, bought out items, appropriate tools and log books as required.
- 4.1.2. LPSC shall issue the test fluids (GN2&GHe), consumables (Isopropyl alcohol, Trichloroethylene, snoop solution etc.) for all the facilities and equipments in the facility to the SERVICE PROVIDER, who shall maintain proper records of the issued items along with the details of the usage. The records shall be periodically verified by LPSC.
- 4.1.3. LPSC shall provide adequate PC's, printers & associated consumables for data generation wherever needed.
- 4.1.4. LPSC shall ensure that all the facilities/equipments are in proper working condition by doing all the necessary daily routine checks and maintenance as per a predefined schedule.
- 4.1.5. All the necessary technical inputs, processes, technical documentation shall be provided by LPSC.
- 4.1.6. Electricity, water & compressed Nitrogen/Air supply for the facility shall be provided by LPSC.

##### **4.2. SERVICE PROVIDER's Responsibility**

- 4.2.1. Acquire the skills in terms of the functional requirements of Assembly, Integration, Testing, Chemical activities and documentation.
- 4.2.2. **The Service Provider shall identify a suitable Focal person who will be the service provider's single point of contact for activities under this contract.**
- 4.2.3. The SERVICE PROVIDER should provide minimum workforce required for the smooth conduct of the activities in the given schedule.
- 4.2.4. The SERVICE PROVIDER should position personnel with experience and capability to handle precision equipment, pneumatic systems, hydraulic systems, assembly, Chemical lab & hot testing related activities etc.,
- 4.2.5. **No Sub-contracting of work in any form, either part or full shall be permitted.**
- 4.2.6. In case of exigencies of work, the persons deployed shall be ready to work beyond office hours and on holidays as per the requirement of LPSC to meet the project schedules.
- 4.2.7. The activities carried out are of sensitive nature and covered by rules and regulations of the Department. NO information shall be taken out of this or disclosed to anyone outside the office.

## **5. SHORT CLOSING/TERMINATION OF CONTRACT**

5.1. Under normal circumstances, short-closing / termination of the Contract is not foreseen. However, in case of continued non-performance of the Contractor, resulting in inordinate delays in carrying out the activities or not meeting the required standards in performing the activities, differences in interpretation etc., the Department reserves the right to terminate the Contract either wholly or partly.

5.2. In the event of short-closing/termination of the Contract, the following procedure shall be followed.

- The Department shall give a notice of not less than one month.
- On receipt of the notice, the Contractor shall take all necessary steps for winding up of the Contract in line with the notice within a reasonable period, but in any case not exceeding three months from the date of posting the notice.
- The compensation to be paid to the Contractor during the notice period shall be agreed to by mutual negotiations.

5.3. The Department shall in no circumstances be liable to pay any sum which, when added to the other sums paid, due or becoming due to the Contractor under this Contract, exceeds the amount specified in the contract.

## **6. MANPOWER REQUIREMENT**

6.1. The personal deputed shall be qualified, experienced and possess requisite skill-sets for operation and maintenance of the dedicated facilities. The personnel shall have minimum qualification of ITI (Fitter, Electronics/Instrumentation Trade) & Diploma (Electronics/Instrumentation) with 1 year minimum experience in ISRO/Other Govt. Department/Centres carrying out similar activities.

6.2. Service provider shall provide all the required manpower for performing the work.

6.3. Service provider shall submit the details regarding the qualification and experience of the work force being deployed, as and when manpower is positioned / changed. Personnel meeting the aforesaid pre-requisites should be able to demonstrate their skills in the presence of department's representative. In case of any attrition in the skilled personnel, party shall seek for fresh skill demonstration of personnel, so as to ensure minimum number of skilled personnel available with them always and to have some buffer as a redundant measure for substituting the absentees.

## **7. SAFETY**

7.1. Since the various activities involve high pressure operations, Chemical activities, Propellant handling etc., the safety of all persons engaged by the SERVICE PROVIDER shall rest entirely with the SERVICE PROVIDER and shall ensure his employees are following proper personal safety procedures, in consultation with LPSC. General safety precautions as laid down by LPSC shall be strictly adhered to in all activities.

7.2. The SERVICE PROVIDER shall adhere to all statutory rules/labour laws & regulations. Any violation in above statutory provisions shall be the sufficient reason for the termination of this Contract.

## **8. OFFICIAL SECRECY & PATENT RIGHTS**

- 8.1. The SERVICE PROVIDER and all his employees shall abide by Indian Official Secrets Act in vogue & shall provide confirmation of awareness of the above, in writing.
- 8.2. The SERVICE PROVIDER or his employees shall not take any document/process sheet/data of the results/floppy disks/CD/USB etc., issued containing work details, outside the place of work.
- 8.3. The SERVICE PROVIDER or his employees shall not divulge any information that is made known to him or he has come across to any person not authorized to receive such information.
- 8.4. Any violation of secrecy, detected at any time of the Contract, by the SERVICE PROVIDER or any of his employees may lead to termination of services of the employee/Contract itself as deemed fit by LPSC. Any violation in this regard shall attract serious action.
- 8.5. The plant designs, Assembly & Test procedures etc., whether or not protected by patent, are to be strictly treated as secret & the SERVICE PROVIDER shall not disclose any details of the above to any unauthorized person or to any other party not directly linked with LPSC and shall not use the same for any other purpose.

## **9. CONTRACT TYPE & PRICES**

### **9.1. Contract type**

**The term of the Contract is for Three years and hence the price quoted shall be for 3 years. In case of any exigencies, department can opt for extension of the contract for further period of one or two years, on mutually agreed terms i.e., based on the performance & review at the end of 3<sup>rd</sup> & 4<sup>th</sup> year.**

### **9.2. Prices**

The price shall be quoted as per the following guidelines:

**9.2.1. Service provider shall quote Amortised Man day rate for performing Assembly, Testing & Chemical activities at various facilities of TPTG as per the guidelines and work content indicated in Section 2.0 & 3.0.**

**9.2.2. In case the Service provider's personnel are to be deployed to other ISRO centres like IPRC Mahendragiri as mentioned in para 3.0, the cost related to those including travel expenses shall be quoted separately and clearly.**

**9.2.3. Note: The Amortised Man day rate/Outstation rate quoted (as per 9.2.1 & 9.2.2) shall be firm and fixed for a period of 3 years and include all aspects like Personnel, their logistics like daily travelling expenses, accommodation if any, mandatory payments as per all social security & other statutory requirements etc., No other charges shall be payable by LPSC.**



## **10. COMPARISON OF OFFERS**

10.1 The offers received will be compared for both technical conformance and the best price.

10.2 LPSC reserves the right to split and award the order to two or more parties at the lowest quotes.

## **11. PAYMENT**

11.1. Payment would be made every month after certification of the work by the Manager/Deputy Manager of the respective section & approved by Group Head.

## **12. SECURITY**

The service provider:

12.1. Shall follow all the LPSC security instructions applicable for people & processes prevailing at present and those issued from time to time.

12.2. Shall ensure that the personnel deployed are all Indian citizens only, character & antecedents of whom are duly verified by the Police. The police verification certificate should be submitted to Director-LPSC.

12.3. Shall ensure provisions of social security measures under Employees State Insurance Act and Employees Provident Fund (Misc. Provision) Act to the personnel employed by them.

12.4. Shall also verify/certify the conduct of the work force at frequent intervals. If any of the workforces misbehaves or commits any misconduct, LPSC reserves the right to refuse permission to such persons to enter LPSC. Any violation in this regard will result in the termination of the contract without any notice.

## **13. GRIEVANCE REDRESSAL AND ARBITRATIONS**

13.1. The provisions relating to grievance redressal mechanism, including the details of the authority to whom the contractor/supplier may submit an application for review of any decision or action taken by the Centre/Unit, shall be incorporated in the Purchase Order/Contract.

13.2. In the event of any dispute or difference arising out of or in connection with any of the terms and conditions of this Purchase Order/Contract, such dispute or difference shall be settled amicably by mutual consultations or through the good offices of the respective parties. If such resolution is not possible, then the unresolved dispute or difference shall be referred to the sole arbitrator appointed by Director-LPSC, in accordance with the rules and procedures of the Arbitration and Conciliation Act of 1996 or any re-enactment or modification thereof. The decision of the Arbitrator shall be final and binding upon the parties and the expenses for the arbitration shall be paid as may be determined by the Arbitrator.

13.3. The Arbitrator may with the consent of both the parties extend the time for making the award. The Arbitration shall be held at Thiruvananthapuram, Kerala.

#### **14. OWNERSHIP**

14.1. The complete ownership of the facility shall be with LPSC, ISRO, Govt. of India and the SERVICE PROVIDER shall at no point of time have any ownership rights on the facility.

14.2. The manpower deployed shall be employees of the SERVICE PROVIDER and shall not claim to have been employed by LPSC. LPSC has no responsibility towards the SERVICE PROVIDER's employees.

#### **15. HUMAN RESOURCE & HR POLICY**

15.1. The SERVICE PROVIDER shall provide the entire required workforce (Technical and skilled) to carry out the activities as per detailed work requirement.

15.2. The SERVICE PROVIDER and the personal deployed should be qualified, experienced and possess requisite skill-sets for operation and maintenance of the dedicated facilities. The personnel shall have minimum qualification of ITI (Fitter, Electronics/Instrumentation Trade) & Diploma (Electronics/Instrumentation) with 1 year minimum experience in ISRO/ Other Govt. Departments/Centres carrying out similar activities.

15.3. It is anticipated that a work-force of about 13 personnel (comprising of ITI Technicians, Diploma Electronics & BSc Chemistry) may be required to be deployed by the SERVICE PROVIDER for carrying out the activities at all facilities.

Sl. No.	Area of Work	Indicative Man power requirement				
		ITI		Diploma		BSc Chemistry
		Fitter	Electronics	Mech	Electronics	
1.	AIT	4	-	-	-	-
2.	SC&CL	1	-	-	-	1
3.	LTET-V	1	2	-	1	-
4.	LTET-T	1	2	-	-	-

15.4. The SERVICE PROVIDER shall have a HR policy of retaining trained workforce. This is very essential since attrition would lead to derailment of test activities, affect quality and result in inordinate delay in delivery schedule and lead to uncertainty in contract execution.

15.5. Absorbing trained personnel in operation and maintenance of similar facilities is required.

- 15.6. Prior experience by SERVICE PROVIDER or hired staff with minimum 1 year experience in operation and maintenance of similar Assembly & Test facilities/ Chemical lab is required. The SERVICE PROVIDER shall be currently in the business, related to similar contracts. (Copies of the contract/PO shall be submitted).
- 15.7. The SERVICE PROVIDER shall possess human resource with adequate knowledge in the areas of operation and maintenance of similar facilities. (Organization structure with human resource's competency and experience shall be submitted.)

## **16. OTHER POINTS**

### **16.1. SECURITY DEPOSIT:**

SERVICE PROVIDER shall provide interest free Security Deposit worth 10% of the Order value, in the form of Bank guarantee in non-judicial stamp paper of appropriate value obtained from a Nationalized/Scheduled bank within 2 weeks from the date of receipt of Purchase order and shall be valid for a period of 3 months beyond the date of completion of the Contract. This shall be returned after successful execution of the Contract. If the Contract gets extended for 3 more years, associated Security Deposit (similar to as cited above) terms and conditions are to be met by SERVICE PROVIDER.

Offers from SERVICE PROVIDER(s), who are not agreeing to provide Security Deposit shall not be considered.

- 16.2. The SERVICE PROVIDER shall ensure strict compliance with the provisions of the applicable Central/State labour Laws.
- 16.3. The personnel shall be stationed only in areas identified for their work and shall not trespass into other areas without proper permission.
- 16.4. All equipment and utilities entrusted to the SERVICE PROVIDER should be handled with due care and caution and any liability whatsoever in nature due to mishandling or otherwise would be borne by the SERVICE PROVIDER. It is also agreed by and between the parties that in any case, any liability arises, neither LPSC/ Department or representative of LPSC/Department shall be responsible for the same. In case it is found that the damages have been caused due to mishandling or otherwise by the SERVICE PROVIDER, the SERVICE PROVIDER shall be liable to pay the entire damages to LPSC/Department.
- 16.5. In case of any accidents inside LPSC (during operation on the machines, material/propellant handling etc.) first aid shall be provided by LPSC during the normal working hours of LPSC. For further medical treatment and for any other emergency beyond the working hours of the facilities/lab, the SERVICE PROVIDER shall make his own arrangement.
- 16.6. The work force supplied shall be redeployed in areas requiring more work from time to time. The service provider shall see that the work load is distributed evenly among the workers.

## 17.0 Submission of bids (Most Important)

This is a two part tender. Part 1 is Techno commercial bid & Part 2 is Price bid.

Part 1 shall contain all relevant information sought in this RFP except the price. The Service Provider shall indicate their acceptance of the RFP and also give the details of the no. of personnel to be deputed for various areas of work including their qualification, experience etc.,

An unpriced price bid format shall also form part of the Part 1 offer. The price bid format is enclosed here.

Part 2 shall contain the same price bid format attached in Part 1 with only the addition of price in the relevant columns of the unpriced price bid.

PLEASE NOTE THAT ANY PART OF PRICE BEING PRESENT IN THE PART -1 WILL LEAD TO AUTOMATIC REJECTION OF YOUR OFFER.

An unpriced price bid format is given below for reference:

Sl.No	Particulars	Price in Rs.			
		Technician		Supervisor	
1.	<b>Amortised Man day rate</b>	Technician		Supervisor	
2.	<b>Out station rate (other ISRO centres)</b>	<b>Travel expenses</b>		<b>Other expenses for food &amp; accommodation (Excluding Amortised Man day rate)</b>	
2.1	<b>IPRC, Mahendragiri</b>	Technician	Supervisor	Technician	Supervisor

Note: 1. The Amortised Man day rate shall be applicable for personnel when they are assigned to work at LPSC, Valiamala or at other work centres or ISRO Centres located in & around Thiruvananthapuram. No additional payment will be made towards this.

2. Other expenses rates shall be applicable for date of journey, if the journey commences before 12 noon and also for the last journey day of the outstation trip if journey extends beyond 12 noon.

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**Instruction to the SERVICE PROVIDER regarding its employee emoluments:**

1. **Salary:** Appropriate market based salaries matching to experience and skill shall be given to prevent attrition. Attrition shall be prevented since this precision job involves lot of training from LPSC side and also due to security reasons. Salaries shall be directly credited by the SERVICE PROVIDER to bank A/c of SERVICE PROVIDER employees, before 5th of every month.
2. **Normal working hours:** 8.45 hrs to 17.15 hrs (Monday to Friday). If required, work shall be arranged on holidays and beyond normal working hours on working days at the cost agreed for normal working hours.
3. **Transport:** Transport to & from LPSC is in the SERVICE PROVIDER's scope.
4. **ESI & EPF:** Proper facilities & all mandatory benefits like ESI & EPF to be provided by the SERVICE PROVIDER to his employees. The category of work force deployed by the SERVICE PROVIDER for whom the ESI Act, 1948 is not applicable shall be covered by a Medclaim policy from a reputed Insurance company with a reasonable annual coverage & shall be submitted to LPSC for verification. Proof for remittance towards EPF & ESI shall be submitted by the SERVICE PROVIDER to Accounts officer, LPSC every month.
5. **Uniform & Safety Protective Equipment:** All the employees of the SERVICE PROVIDER shall be provided with neat uniform and appropriate footwear etc., by the SERVICE PROVIDER. All the employees of the SERVICE PROVIDER shall compulsorily wear the uniform on all working days. Soiled & torn uniform shall not be worn. Also they have to wear the appropriate Safety Protective equipments provided by the department while handling chemicals/propellants etc.,
6. The **movement of employees** of the SERVICE PROVIDER shall be restricted to their area of work only.
7. All employees of the SERVICE PROVIDER shall have **security clearance certificate** from respective police stations.
8. **Identification cards (ID cards)** shall be provided by the SERVICE PROVIDER for all the employees positioned by it. LPSC shall provide only the entry pass for a specific period.
9. **Lunch:** Department Canteen facilities available in the campus can be extended to the Service provider's personnel if required at the rates fixed by Department from time to time as applicable to such personnel.

**INSTRUCTIONS FOR TWO PART TENDERS**

1. We invite your offer duly signed, in TWO parts as follows:-

(a) PART- I : TECHNICAL & COMMERCIAL (Other than Price)

(b) PART -II : PRICE BID

1.1 **PART-I : TECHNICAL & COMMERCIAL**

1.1.1 **TECHNICAL:** The detailed Technical Specification and Commercial Terms such as delivery date, taxes, duties payable, place of delivery, payment term, validity, guarantee etc and scope of supply shall be covered in this part. Please enclose a copy of the details indicated in price quotation (**WITHOUT PRICES OR BY MASKING THE PRICE**) mainly to know the items/ specifications for which you have indicated prices in price bid. **This part should not contain prices.** The Technical and commercial part of the offer should be kept in a sealed envelope superscribing the following details.

**QUOTATION AGAINST TENDER NO TE31 2017030244 01**  
**DUE ON 02.11.2017 at 16.00 hrs IST**  
**OPENING ON 03.11.2017 at 10.30 hrs IST**  
**WORK PACKAGE FOR ASSEMBLY & TESTING ACTIVITIES AT VARIOUS FACILITIES**  
**OF TPTG FOR 3 YEARS.**  
**PART I - TECHNICAL & COMMERCIAL**

The cover should indicate "SENDER'S" address.

1.2. **PART -II : PRICE BID**

1.2.1. This part shall contain **PRICE** details only.

1.2.2. The price for the item should be indicated item wise in this part. All the items/ specifications mentioned in the Technical Part should come here and prices indicated against each. The break-up for each item of supply or services should be indicated.

1.2.3. Whenever options are quoted, the same should also be indicated with quantity and unit rate separately. The prices are to be mentioned both in figures and in words. This part should also be kept in a sealed cover superscribing as follows:-

**QUOTATION AGAINST TENDER NO TE31 2017030244 01**  
**DUE ON 02.11.2017 at 16.00 hrs IST**  
**WORK PACKAGE FOR ASSEMBLY & TESTING ACTIVITIES AT VARIOUS**  
**FACILITIES OF TPTG FOR 3 YEARS.**  
**PART II - PRICE BID**

THE TWO SEALED COVERS PREPARED AS ABOVE SHOULD BE KEPT IN ANOTHER ENVELOPE, SEALED AND SUPERSCRIBED AS UNDER:-

"Quotation against Tender No. TE31 2017030244 01 Due on 02.11.2017, 16.00 hrs IST for WORK PACKAGE FOR ASSEMBLY & TESTING ACTIVITIES AT VARIOUS FACILITIES OF TPTG FOR 3 YEARS containing TWO SEPARATE COVERS PART-1 & PART -II and addressed to:

SR.PURCHASE & STORES OFFICER  
Liquid Propulsion Systems Centre  
Valiamala (PO)  
Thriuvananthapuram- 695 547.

The cover should indicate "SENDER'S " address

For any clarification you may contact us at following phone/Fax Nos.

Telephone : 0471 2567726/0471 2567727  
Fax : 0472 2800712/0471 2567305

Your offer should reach us on or before the due date and time i.e. 02<sup>th</sup>, NOVEMBER 2017 at 16.00 hrs IST. *Offers received after the due date and time will not be considered.*

*Offers received through fax or email will not be considered.*

**Note:**

Tender fee Rs.590/- (Rupees Five Hundred and Ninety only)(Including Service Tax) shall be payable only in the form of Bank draft/Banker's Cheque/Fixed Deposit Receipts or Bank Guarantee in favour of Accounts Officer, LPSC, Valiamala payable at Trivandrum and the same shall be enclosed along with Part-I, Techno-Commercial Bid, **without which your offer will not be considered.**



**COMPLIANCE STATEMENT FOR COMMERCIAL TERMS**  
**(To be filled and furnished along with your quotation)**

Sl. No.	Description (Commercial terms & conditions)	Compliance to Col. (2) [YES/NO]	Remarks
(1)	(2)	(3)	(4)
1.	P & F charges, if any. (If mentioned as EXTRA or INCLUDED in your offer, please mention the percentage or amount in Remarks column)		
2.	Freight charges, if any. (If mentioned as EXTRA or INCLUDED in your offer, please mention the percentage or amount in Remarks column)		
3.	GST, if applicable, please mention percentage in Remarks column.		
4.	Are you a registered vendor?		
5.	ISRO is exempted from payment of Customs Duty vide Notification No.50/ 2017- Customs dated 30/06/2017. (We will provide Customs Duty Exemption Certificate in case of Import Orders/ imported supplies/ High Sea Sales).		
6.	Installation Charges, if any. (If mentioned as EXTRA or INCLUDED in your offer, please mention the percentage or amount in Remarks column)		
7.	Delivery <ul style="list-style-type: none"> <li>• FOR LPSC, VALIAMALA</li> <li>• In case of foreign orders, FOB or FCA.</li> </ul>		
8.	Delivery Period		
9.	<b>Payment:</b> <ul style="list-style-type: none"> <li>(a) <u>Indigenous Suppliers</u>: 100% payment through RTGS within 30 days after receipt and acceptance of the item in good condition.</li> <li>(b) <u>Foreign Suppliers</u>: Against SIGHT DRAFT/ LETTER OF CREDIT.</li> <li>(c) <u>Advance payment</u>: <ul style="list-style-type: none"> <li>• Private firms: Upto 30% advance on submission of bank guarantee for an equivalent amount with sufficient validity.</li> <li>• State/ Central Govt. Agencies/ PSUs: Upto 40% advance on submission of indemnity bond for an equivalent amount with sufficient validity.</li> </ul> </li> </ul>		

10.	<p><b>Liquidated Damages (LD):</b> In case of failure of delivery within the specified time or any extension thereof, we shall recover as liquidated damages, a sum of 0.5% of the order value of the undelivered item for each calendar week of delay, subject to a maximum of 10% of the order value of the undelivered item. <b>(This is a mandatory clause. Confirm acceptance.)</b></p>		
11.	<p><b>Warranty:</b> Warranty for the offered item shall be from the date of installation/acceptance of the item at our site for a minimum period of 12 months, or as specified in the tender document. Please specify warranty period in the remarks column.</p>		
12.	<p><b>Security Deposit (SD):</b> You shall submit SD @ 10% of the value of the order obtained through bank guarantee or fixed deposit receipt, valid for a period of 60 days beyond the date for completion of the purchase order. The amount retained as SD will be refunded after the purchase order is successfully executed in all respects.</p> <p><u>Note:</u></p> <ul style="list-style-type: none"> <li>• No SD is applicable if value of ordered items is up to Rs. 5 lakhs.</li> <li>• Central PSUs/ PSEs/ Autonomous Bodies/ MSEs are exempted from payment of SD. Instead, an Indemnity Bond for 10% of the value of the order shall be furnished in lieu of SD.</li> </ul>		
13.	<p><b>Performance Bank Guarantee (PBG):</b> You shall submit a PBG @ 10% of order value obtained through bank guarantee, valid for a period of 60 days beyond the date for completion of all contractual obligations/ expiry of warranty period.</p> <p><b><i>(If not agreed, 10% of the order value shall be retained in lieu of PBG for a period of 60 days beyond the date for completion of all contractual obligations/ expiry of warranty period.)</i></b></p>		
14.	<p><b>Consolidated PBG-cum-SD:</b> In case you are unable to provide two separate BGs,i.e., one for SD &amp; one for PBG, you can submit a combined BG for SD &amp; PBG for 10% of the order value, valid for 60 days beyond the date for completion of all contractual obligations/ expiry of warranty period.</p>		
15.	<p><b>Validity of Offer:</b> Minimum validity of tender from the date of opening of the tender shall be as follows:</p> <ul style="list-style-type: none"> <li>• Two- part tender: 120 days</li> <li>• Open/ Public/ Limited Tender( Single part): 90 days</li> </ul>		

16.	<p><b>In case of foreign orders:</b></p> <p>(a) Please specify whether any export clearance is required. If required, please provide End User Certificate format along with the offer.</p> <p>(b) Please mention percentage of Agency Commission, if any. (Agency Commission shall be claimed by the Indian Agent through an invoice. Agency commission shall be paid to the Indian agent in Indian Rupees worked out on the basis of Telegraphic transfer buying rate of exchange prevailing on the date of placement of the purchase order/ contract and within 30 days from the date of satisfactory acceptance of the item.)</p>		
17.	<p><b>Special conditions against Indian Agents submitting quotations in Foreign Currency</b></p>		
	<p>(a) Foreign Principal's proforma invoice shall indicate the commission payable to the Indian Agent and nature of after sales service to be rendered by the Indian Agent.</p>		
	<p>(b) Copy of Agency agreement with the Foreign Principal, precise relationship between them and their mutual interest in the business</p>		
	<p>(c) The enlistment of the Indian Agent with Director-General of Supplies &amp; Disposals under the Compulsory Registration Scheme of Ministry of Finance.</p>		
18.	<p><b>Purchase/Preference to MSEs</b></p> <p>Purchase/Price Preference shall be extended to the MSEs under the Public Procurement Policy for MSEs formulated under the Micro, Small &amp; Medium Enterprises Development Act 2006. Necessary authenticated documentary evidences shall be submitted along with your offer. MSEs will be exempted from submission of EMD. Specify your category.</p>		

**NOTE:**

- The tender submitted by you shall be compulsorily signed. Unsigned tenders will be summarily excluded from the procurement process.
- Being a Govt. of India Dept., insurance is not required at our cost. Please ensure safe delivery of the ordered item with proper ROAD/ SEA/ AIR worthy packing.
- All formats (PBG, SD, IB) shall be provided by the Dept., in case of placement of order.

**General Terms and Conditions:**

**1. Earnest Money Deposit :**

Earnest Money Deposit amounting to **Rs.5,00,000/-** shall invariably be submitted by you along with your offer. Offer without EMD will be rejected. The EMD shall be submitted in the form of Demand Draft/Bankers Cheque/FD receipts or Bank Guarantee drawn in favour of Accounts Officer, LPSC and payable at Thiruvananthapuram. Submission of EMD is exempted in respect of Registered vendors, Foreign vendors, CPSU/CPSE, MSE, KVIC, NSIC. Vendors seeking exemption from payment of EMD shall submit necessary proof like registration number, copy of relevant valid certificates along with your offer, failing which the said offer will be rejected. The EMD of a vendor will be forfeited if the vendor withdraws or amends their tender or deviates from the tender in any respect within the validity period of the tender.

**2. Purchase / Price Preference to MSEs**

Purchase/Price preference will be applicable to the product reservation admissible to the Micro and Small Enterprises. Purchase/Price Preference shall be extended to the MSEs under the Public Procurement Policy for MSEs formulated under the Micro, Small and Medium Enterprises Development Act, 2006. The participating MSEs in a tender, quoting price within the band of L-1 + 15% may also be allowed to supply a portion of the requirement by bringing down their price to the L-1 price, in a situation where L-1 price is from someone other than an MSE. Such MSEs may be allowed to supply upto 20% of the total tendered value. In case of more than one such eligible MSE, the supply will be shared equally. .

**3. Security Deposit**

On acceptance of the order, you shall submit an interest free amount equivalent to 10% of the total contract/order value towards security deposit. This security deposit is collected towards the performance of the Contract. The said Security Deposit shall be submitted either in the form of Bank Guarantee/Demand Draft/PDR receipts duly endorsed in the name of the centre. The Security Deposit will be returned to you on successful completion of the Contractual obligations; failing which it shall be forfeited/adjusted.

**4. Offer Validity**

Your offer shall be valid for 120 days from the date of tender opening. In case you offer validity less than 120 days, the said offer is liable for rejection which may please be noted.

5. **Liquidated Damages:**

If you fail to deliver the ordered items satisfactorily within the time specified or any extension thereof, Liquidated Damage @ 0.5%(zero point five percent) of the order value or part thereof the un-delivered items for each calendar weeks of delay shall be recovered from your bill. However total Liquidated Damage shall not exceed 10%(ten percent) of the order value.

6. Tender fee **Rs.590/- (Rupees Five Hundred and Ninety only )** shall be payable only in the form of Bank draft in favour of Accounts Officer, LPSC, Valiamala payable at Trivandrum and the same shall be enclosed along with your offer, **without which your offer will not be considered.**

7. **Payment terms:** Payment would be made every month after certification of the work by the LPSC Contract Manager.

8. Please specify Tax percentage, if any, in your offer.

9. The rates shall be firm and fixed till completion of entire quantum of job.

10. We reserve the right to cancel this order with two weeks notice with or without assigning any reasons thereof.

11. The work shall be executed at LPSC Valiamala.

12. The labours detailed for the job shall not be changed frequently without advance intimation.

13. The work shall be carried out strictly to our satisfaction.

14. No facilities for transport will be provided by us to your technicians and you have to make your own arrangements for the same.

15. We shall not be responsible for any injury or losses to your contract personnel caused at our site. You shall be responsible for any loss or damage to the Department's property due to the negligence of your personnel.

16. You and your labours shall adhere to all our safety regulations and adhere to all statutory requirements as directed by us.

17. All labour related statutory conditions as per the respective Acts/Rules in force shall be followed by you. You shall also be responsible for proper supervision of your workers / technicians.

18. **Insurance:** You shall arrange personal insurance (All risk insurance coverage) for the labours being deployed for the work and produce certificates for verification before commencing the work at your cost.
19. Police Verification : Police Verification Report in respect of the technicians being deployed (including the Contractor) shall be arranged by you.
20. The data/document/drawing given by the Department to execute the job shall be treated as confidential and no information shall be passed on to any third agency.
21. You shall employ only qualified/experienced Indian Nationals. You shall follow the security guidelines of LPSC.
22. ***Your offer should reach us on or before the due date and time i.e, 02.11.2017 at 16.00 hrs IST.*** Offer received after the due date and time will not be considered. Offers received through fax or email will not be considered.

GOVERNMENT OF INDIA  
DEPARTMENT OF SPACE  
**LIQUID PROPULSION SYSTEM CENTRE**  
PURCHASE DIVISION  
VALIAMALA P.O. THIRUVANANTHAPURAM

Tender No :  
Due on :  
Ref. No : .....  
Date : .....

**TENDER FORM**

From :

.....  
.....  
.....

To: The Purchase & Stores Officer,  
Liquid Propulsion Systems Centre  
Valiamala P.O.  
Thiruvananthapuram – 695 547

Dear Sir,

I/We hereby offer to supply the stores detailed below at the price hereunder quoted and agree to hold this offer open till.....I/We shall be bound to supply the stores hereby offered upon the issue of the Purchase Order communicating the acceptance there of on or before the expiry of the last mentioned date. You are at liberty to accept any one or more of the items of stores tendered for or any portion of any one or more of the items of such stores. I/We notwithstanding that the offer in this tender has not been accepted in whole, shall be bound to supply to you such items and such portion or portions of one or more of the items as may be specified in the said Purchase Order communicating the acceptance:

Sl. No.	Description	Quantity	Unit	Rate Rs.	Delivery Date
---------	-------------	----------	------	----------	---------------

.....  
.....

NOTE: All the rates should be given both in figures and words.

Place at which delivery will be made: .....  
Date by which the ordered items will be supplied:.....

2.I/We have understood the items of the tender annexed to the invitation to tender and have thoroughly examined the specification/drawing and / or pattern quoted or referred to herein and /are fully aware of the nature of the stores required and my/our offer is to supply the stores strictly in accordance with the requirements subject to the terms and conditions stipulated in the enquiry and contained in the purchase order communicating the acceptance of this tender either in whole or in part.

Signature of Tenderer  
Date.....

(Seal)

GOVERNMENT OF INDIA  
DEPARTMENT OF SPACE  
**LIQUID PROPULSIONS SYSTEMS CENTRE**  
PURCHASE AND STORES DIVISION

Form No. DOS:PM:20

**TERMS AND CONDITIONS OF TENDER**

1. Tenders should be sent in sealed envelopes superscribing the relevant tender No, and the due date of opening. Only one tender should be sent in each envelope.
2. Late tenders and delayed tenders will not be considered.
3. Taxes, legally leviable and intended to be claimed should be distinctly shown separately in the tender.
4. a) Your quotation should be valid for 120 days from the date of opening of the tender or any other period as specified in the tender enquiry. Offer with validity lesser than that specified is liable for exclusion from the procurement process.
  - b) Prices are required to be quoted according to the units indicated in the annexed tender form. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.
5. (a) All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer.
  - (b) Samples, if called for, should be submitted free of all charges by the tenderer and the Purchaser shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of non-acceptance of tender, the tenderer will have to remove the samples at his own expense.
  - (c) Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should also be indicated in your offer.
  - (d) **Specifications:** Stores offered should strictly confirm to our specifications. Deviations, if any, should be clearly indicated by the tenderer in his quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary, along with the quotations. Test Certificates, wherever necessary, should be forwarded along with supplies. Wherever options



have been called for in our specifications, the tenderer should address all such options. Wherever specifically mentioned by us, the tenderer could suggest changes to specifications with appropriate response for the same.

6. The purchaser shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portions of the quantity offered and the tenderers shall supply the same at the rates quoted.
7. Corrections, if any, must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.
8. The tenderer should supply along with his tender, the name of his bankers as well as the latest Income-Tax clearance certificate duly countersigned by the Income-Tax Officer of the Circle concerned under the seal of his office, if required by the Purchaser.
9. The Purchaser reserves the right to place order on the successful tenderer for additional quantity up to 25% of the quantity offered by them at the rates quoted.
10. The authority of the person signing the tender, if called for, should be produced.

#### **TERMS & CONDITIONS OF TENDER**

##### **1. DEFINITIONS:**

- (b) The term 'Purchaser' shall mean the President of India or his successors or assigns.
- (c) The term 'Contractor' shall mean, the person, firm or company with whom or with which the order for the supply of stores is placed and shall be deemed to include the Contractor's successors, representative, heirs, executors and administrators unless excluded by the Contract.
- c) The term 'Stores' shall mean what the Contractor agrees to supply under the Contract as specified in the Purchase Order including erection of plants & machinery and subsequent testing, should such a condition is included in the Purchase Order.
- d) The term 'Purchase Order' shall mean the communication signed on behalf of the Purchaser by an Officer duly authorised intimating the acceptance on behalf of the Purchaser on the terms and conditions mentioned or referred to in the said communication accepting the tender or offer of the Contractor for supply of stores or plant, machinery or equipment or part thereof.

##### **2. PRICES:**

Tender offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotation with a reasonable ceiling should be submitted. Such offers should invariably be supported by the base price taken into account at the time of tendering and also the formula for any such variation/s.

3. **SECURITY DEPOSIT:**

On acceptance of the tender, the Contractor shall, at the option of the Purchaser and within the period specified by him, deposit with him, in cash or in any other form as the Purchaser may determine, security deposit not exceeding ten percent of the value of the Contract as the Purchaser shall specify. If the Contractor is called upon by the Purchaser to deposit, 'Security' and the Contractor fails to provide the security within the period specified, such failure shall constitute a breach of the Contract, and the Purchaser shall be entitled to make other arrangements for the re-purchase of the stores Contracted at the risk of the Contractor in terms of Sub-Clause (ii) and (iii) of clause 10(b) hereof and/or to recover from the Contractor, damages arising from such cancellation.

4. **GUARANTEE & REPLACEMENT:**

- (a) The Contractor shall guarantee that the stores supplied shall comply fully with the specifications laid down, for material, workmanship and performance.
- (b) For a period of twelve months after the acceptance of the stores, if any defects are discovered therein or any defects therein found to have developed under proper use, arising from faulty stores design or workmanship, the Contractor shall remedy such defects at his own cost provided he is called upon to do so within a period of 14 months from the date of acceptance thereof by the purchaser who shall state in writing in what respect the stores or any part thereof are faulty.
- (c) If, in the opinion of the purchaser, it becomes necessary to replace or renew any defective stores such replacement or renewal shall be made by the Contractor free of all costs to the purchaser, provided the notice informing the Contractor of the defect is given by the purchaser in this regard within the said period of 14 months from the date of acceptance thereof.
- (d) Should the Contractor fail to rectify the defects, the purchaser shall have the right to reject or repair or replace at the cost of the Contractor the whole or any portion of the defective stores.
- (e) The decision of the purchaser notwithstanding any prior approval or acceptance or inspection thereof on behalf of the purchaser, as to whether or not the stores supplied by the Contractor are defective or any defect has developed within the said period of 12 months or as to whether the nature of the defects requires renewal or replacement, shall be final, conclusive and binding on the Contractor.
- (f) **Performance Bank Guarantee:** To fulfil guarantee conditions outlined in clause 4 (a) to (e) above, the Contractor shall, at the option of the purchaser, furnish a Bank Guarantee (as prescribed by the purchaser) from a Bank approved by the purchaser for an amount equivalent to 10% of the value of the Contract along with first shipment documents. On the performance and completion of the Contract in all respects, the Bank Guarantee will be returned to the Contractor without any interest.

- (g) All the replacement stores shall also be guaranteed for a period of 12 months from the date of arrival of the stores at purchaser's site.
- (h) Even while the 12 months guarantee applies to all stores, in case where a greater period is called for by our specifications then such a specification shall apply in such cases the period of 14 months referred to in para 4 (b) & (c) shall be the 'asked for' guarantee period plus two months.

**5. PACKING FORWARDING & INSURANCE:**

The Contractor will be held responsible for the stores being sufficiently and properly packed for transport by rail, road, sea or air to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packages shall be done by and at the expense of the Contractor. The purchaser will not pay separately for transit insurance, all risks in transit being exclusively of the Contractor and the Purchaser shall pay only for such stores as are actually received in good condition in accordance with the Contract.

**6. DESPATCH:**

The Contractor is responsible for obtaining a clear receipt from the Transport Authorities specifying the goods despatched. The consignment should be despatched with clear Railway Receipt/Lorry Receipt. If sent in any other mode, it shall be at the risk of the Contractor. Purchaser will take no responsibility for short deliveries or wrong supply of goods when the same are booked on 'said to contain' basis. Purchaser shall pay for only such stores as are actually received by them in accordance with the Contract.

**7. TEST CERTIFICATE:**

Wherever required, test certificates should be sent along with the despatch documents.

**8. ACCEPTANCE OF STORES:**

- (a) The stores shall be tendered by the Contractor for inspection at such places as may be specified by the purchaser at the Contractor's own risk, expense and cost.
- (b) It is expressly agreed that the acceptance of the stores Contracted for, is subject to final approval by the purchaser, whose decision shall be final.
- (c) If, in the opinion of the purchaser, all or any of the stores that do not meet the performance or quality requirements specified in the Purchase Order, they may be either rejected or accepted at a price to be fixed by the purchaser and his decision as to rejection and the prices to be fixed shall be final and binding on the Contractor.
- (d) If the whole or any part of the stores supplied are rejected in accordance with Clause No. 8 (c) above, the purchaser shall be at liberty, with or without notice to the

Contractor, to purchase in the open market at the expense of the Contractor stores meeting the necessary performance and quality Contracted for in place of those rejected, provided that either the purchase, or the agreement to purchase, from another supplier is made within six months from the date of rejection of the stores as aforesaid.

**9. REJECTED STORES:**

Rejected stores will remain at destination at the Contractor's risk and responsibility. If instructions for their disposal are not received from the Contractor within a period of 14 days from the date of receipt of the advice of rejection, the purchaser or his representative has, at his discretion, the right to scrap or sell or consign the rejected stores to Contractor's address at the Contractor's entire risk and expense, freight being payable by the Contractor at actuals.

**10. DELIVERY AND LIQUIDATED DAMAGES:**

- (a) The time for and the date of delivery of the stores stipulated in the Purchase Order shall be deemed to be the essence of the Contract and delivery must be completed on or before the specified dates.
- (b) Should the Contractor fail to deliver the stores or any consignment thereof within the period prescribed for such delivery, the purchaser shall be entitled at his option either.
  - (i) to recover from the Contractor as agreed liquidated damages and not by way of penalty, a sum of 0.5% per week of the price of any stores which the Contractor has failed to deliver as aforesaid or during which the delivery of such store may be in arrears subject to a minimum of 10%, or
  - (ii) to purchase from elsewhere, without notice to the Contractor on the account and at the risk of the Contractor, the stores not delivered or others of a similar description (where others exactly complying with the particulars, are not, in the opinion of the purchaser, readily procurable, such opinion being final) without cancelling the Contract in respect of the consignment (s) not yet due for delivery, or
  - (iii) to cancel the Contract or a portion thereof and if so desired to purchase or authorise the purchase of stores not so delivered or others of a similar description (where others exactly if complying with the particulars are not, in the opinion of the purchaser, readily procurable, such opinion final) at the risk and cost of the Contractor.

In the event of action being taken under sub-clause (ii) & (iii) of clause 10 (b) above, the Contractor shall be liable for any loss which the purchaser may sustain on that account, provided that the re-purchase or if there is an agreement to re-purchase then such agreement is made within six months from the date of such failure. But the Contractor shall

not be entitled to any gain on such re-purchase made against default. The manner and method of such re-purchase shall be at the discretion of the purchaser, whose decision shall be final. It shall not be necessary for the purchaser to serve a notice of such re-purchase on the defaulting Contractor. This right shall be without prejudice to the right of the purchaser to recover damages for breach of Contract by the Contractor.

**11. EXTENSION OF TIME:**

As soon as it is apparent that the 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 cause which the purchaser may admit as reasonable ground for an extension of the 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 right to recover liquidated damages under clause 10 thereof.

**12. ERECTION OF PLANT & MACHINERY:**

Wherever erection of a plant or machinery is the responsibility of the Contractor as per the terms of the Contract and in case the Contractor fails to carry out the erection as and when called upon to do so within the period specified by the purchaser, the purchaser shall have the right to get the erection done through any source of his choice. In such an event, the Contractor shall be liable to bear any additional expenditure that the purchaser is liable to incur towards erection. The Contractor shall, however, not be entitled to any gain due to such an action by the purchaser.

**13. PAYMENT:**

Contractor's bill will be passed for payment only after the stores have been received, inspected and accepted by the Purchaser.

**14. MODE OF PAYMENT:**

Normally payment will be made for the accepted stores within 30 days from the date of receipt of the materials.

**15. RECOVERY OF SUM DUE:**

Whenever any claim for the payment of, whether liquidated or not, money arising out of or under this Contract against the Contractor, the purchaser shall be entitled to recover such sum by appropriating in part or whole, the security deposited by the Contractor, if a security is taken against the Contract. In the event of the security being insufficient or if no security has been taken from the Contractor, then the balance or the total sum recoverable as the case may be, shall be deducted from any sum then due or which at any time thereafter may become due to the Contractor under this or any other Contract with the purchaser. Should this sum be not sufficient to cover the full amount

recoverable, the Contractor shall pay to the purchaser on demand the remaining balance due. Similarly, if the purchaser has or makes any claim, whether liquidated or not, against the Contractor under any other Contract with the purchaser, the payment of all moneys payable under the Contract to the Contractor including the security deposit shall be withheld till such claims of the purchaser are finally adjudicated upon and paid by the Contractor.

**16. INDEMNITY:**

The Contractor shall warrant and be deemed to have warranted that all stores supplied against this Contract are free and clean of infringement of any Patent, Copyright or Trademark, and shall at all times indemnify the purchaser against all claims which may be made in respect of the stores for infringement of any right protected by Patent Registration of design or Trade mark and shall take all risk of accidents or damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for sufficiency of all means used by him for the fulfilment of the contract.

**17. ARBITRATION:**

In the event of any question, dispute or difference arising under these conditions or any conditions contained in the Purchase Order or in connection with this Contract (except as to any matter the decision of which is specially provided for by these conditions), the same shall be referred to the sole arbitration of the Head of the Purchase office or some other person appointed by him. It will be no objection that the arbitrator is a Government servant, that he had to deal with matter to which the Contract relates or that in the course of his duties as Government servant he has expressed views on all or any other matters in dispute or difference. The award of the arbitrator shall be final and binding on the parties of this Contract.

If the arbitrator be the Head of the Centre/Unit –

- (i) In the event of his being transferred or vacating his office by resignation or otherwise, it shall be lawful for his successor-in-office either to proceed with reference himself, or to appoint another person as arbitrator, or
- (ii) In the event of his being unwilling or unable to act for any reason, it shall be lawful for the Head of the Centre/Unit to appoint another person as arbitrator.

If the arbitrator be a person appointed by the Head of the Purchase Office – In the event of his dying, neglecting or refusing to act or resigning or being unable to act, for any reason, it shall be lawful for the Head of the Centre/Unit either to proceed with the reference himself or appoint another person as arbitrator in place of the outgoing arbitrator.

Subject as aforesaid the Arbitration & Conciliation Act 1996 and the rules thereunder and any statutory modifications thereof for the time being in force shall be deemed to apply to the arbitration proceedings under this Clause. The Arbitrator shall have the power to extend with the consent of the purchaser and the Contractor the time for making and publishing the award. The venue of arbitration shall be the place as purchaser in his absolute discretion may determine. Work under the Contract shall, if reasonably possible, continue during arbitration proceedings.

In the event of any dispute or difference relating to the interpretation and application for the provisions of the Contracts, such dispute or difference shall be referred by either party to Arbitration of one of the Arbitrations in the Department of Public Enterprises. The Arbitration Act 1996 shall not be applicable to arbitration under this clause. The award of the Arbitrator shall be binding upon the parties to the dispute provided however any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Govt. of India. Upon such reference, the dispute shall be decided by the Law Secretary or the Special Secretary / Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the parties finally and conclusively. The parties to the dispute will share equally, the cost of arbitration as intimated by Arbitrator.

**18. COUNTER TERMS AND CONDITION OF SUPPLIERS:**

Where counter terms and conditions printed or cyclostyled conditions have been offered by the supplier, the same shall not be deemed to have been accepted by the Purchaser, unless specific written acceptance thereof is obtained.

**19. SECURITY FOR PURCHASE OF MATERIALS:**

Successful tenderer will have to furnish in the form of a bank guarantee or any other form as called for by the purchaser towards adequate security for the materials and properties provided by the Purchaser for the due execution of the Contract.

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**INSTRUCTIONS TO TENDERERS**

1. The Tenderers should submit quotations in duplicate in a sealed envelope, superscribing the Tender No. and due date of opening and complete in all respects with technical specifications, including pamphlets and catalogues.
2. A Proforma Invoice may also be given which should contain the following information:
  - a) The FOB/FCA value, the C & F value for import by Sea freight / Air freight up to and for air parcel post up to ..... should be separately indicated.
  - b) Agency Commission: The amount of commission included in the price and payable to the Indian Agent of the Contractor shall be paid directly to the Indian Agent by the Purchaser in equivalent Indian Rupees on the basis of an Invoice from him applying T.T. buying rate of exchange ruling on the date of placement of the Purchase Order and which shall not be subject to any further exchange variations. This payment will be released to the Indian Agent immediately after Customs clearance of the goods in India.
  - c) The Contractor shall invoice only for the net amount payable to him, after deducting the amount of Agency Commission included in the invoice which will be paid to the Indian Agent directly by the Purchaser. However, the Contractor's invoice should separately reflect the amount of commission payable to his Indian Agent.
  - d) The earliest delivery period and country of origin of the Stores.
  - e) Banker's name, address, telephone/fax Nos. & e-Mail ID of the Contractor.
  - f) The approximate net and gross weight and dimensions of packages/cases.
  - g) Recommended spares for satisfactory operation for a minimum period of one year.
  - h) Details of any technical service, if required for erection, assembly, commissioning and demonstration.
3. The FOB/FCA and C & F prices quoted should be inclusive of all taxes, levies, duties arising in the tenderer's country.
4. The offer should be valid for a minimum period of 120 days from the due date of opening of the tender.
5. Samples, if called for, should be sent free of all charges.
6. Late and delayed tenders will not be considered. Quotations by cable must be followed by detailed offers.
7. Offers made by Indian Agents on behalf of their Principals, should be supported by the proforma invoice of their Principals.
8. The details of Import Licence will be furnished in the Purchase Order.
9. The authority of person signing the tender, if called for, shall be produced.
10. Instructions / Operation Manual containing all assembly details including wiring diagrams should be sent wherever necessary in duplicate. All documents / correspondence should be in English language only.
11. The Purchaser reserves the right to accept or reject the lowest or any offer in whole or part without assigning any reason.
12. It is expressly agreed that the acceptance of the Stores Contracted for is subject to final approval in writing by the Purchaser.
13.
  - a) Part shipment is not allowed unless specifically agreed to by us.
  - b) As far as possible stores should be despatched by Indian Flag Vessels / Air India



through any Agency nominated by us.

14. Inspection / Test Certificate should be provided for the goods after testing it thoroughly at the Contractor's works. If any Inspection by Lloyds or any other testing agency is considered necessary, it shall be arranged by Contractors.
15. Where erection or assembly or commissioning is a part of the Contract, it should be done immediately on notification. The Contractor shall be responsible for any loss/damage sustained due to delay in fulfilling this responsibility.
16. For items having shelf life, those with maximum shelf life should be supplied if order is placed

## I. **TERMS AND CONDITIONS**

### 1. DEFINITIONS:

- a. The term 'Purchaser' shall mean the President of India or his successors or assignees.
- b. The term 'Contractor' shall mean, the person, firm or company with whom or with which the order for the supply of stores is placed and shall be deemed to include the Contractor's Successors, representatives, heirs, executors and administrators unless excluded by the Contract.
- c. The term 'Purchase Order' shall mean the communication signed on behalf of the Purchaser by an officer duly authorized intimating the acceptance on behalf of the Purchaser on the terms and conditions mentioned or referred to in the said communication accepting the Tender or offer of the Contractor for supply of stores of plant, machinery or equipment of part thereof.
- d. The term 'Stores' shall mean what the Contractor agrees to supply under the Contract as specified in the Purchase Order.

### 2. PRICES:

Tenders offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotations with a reasonable ceiling should be submitted. Such offers should invariably be supported by the base price taken into account at the time of tendering and also the formula for any such variations.

### 3. TERMS OF PAYMENT:

- 3.1. Being a Department of the Government of India, the normal terms of payment are by Sight Draft. However other terms of payment like establishment of Letter of Credit may be considered by the Purchaser on such terms and conditions as may be agreed upon.
- 3.2. The Sight Draft / Letter of Credit will be operative on presentation of the under mentioned documents:
  - a) Original Bill of Lading / Airway Bill
  - b) Commercially certified invoices describing the stores delivered, quantity, unit rate and their total value, in triplicate. The invoice should indicate the discounts, if any, and Agency Commission separately.
  - c) Packing List showing individual dimensions and weight of packages.
  - d) Country of Origin Certificate in duplicate. e) Test Certificate.
  - e) Declaration by the Seller that the contents in each case are not less than those entered in the invoices and the quality of the Stores are guaranteed as per the specifications asked for by the Purchaser.
  - f) Warrantee and guarantee Certificate/s vide Clause 20 herein below

### 4. IMPORTANT LICENCE:

Reference to Import License No. & date and Contract number & date shall be prominently indicated in all the documents vide para 3.2

5. DEMURRAGE:  
Supplier shall bear demurrage charges, if any, incurred by the purchaser due to delayed presentation of shipping documents as prescribed in para 3.2 to the bankers within a reasonable time (say within 10-12 days) from the date of bill of lading for sea consignments and within 3-4 days from the date of Air Way Bill for air consignments.
6. ADDRESS OF INDIAN AGENTS:  
.....  
.....
7. GUARANTEED TIME DELIVERY:  
The time for and the date of delivery stipulated in the Purchase Order shall be deemed to be the essence of the Contract. Delivery must be completed within the date specified therein.
8. INSPECTION AND ACCEPTANCE TEST:
  - 8.1. The Purchaser's representatives shall also be entitled at all reasonable times during manufacture to inspect, examine and test on the Contractor's premises the material and workmanship of all stores to be supplied under this Contract and if part of the said stores is being manufactured on other premises, the Contractor shall obtain for the purchaser's representative permission to inspect, examine and test as if the equipment were being manufactured on the Contractor's premises. Such inspection, examination and testing shall not release the Contractor from the obligations under this Contract.
  - 8.2. For tests on the premises of the Contractor or of any of his sub-Contractors, the Contractor shall provide free of cost assistance, labour, material, electricity, fuel and instruments as may be required or as may be reasonably needed by the purchaser's representative to carry out the tests efficiently.
  - 8.3. When the stores have passed the specified test, the purchaser's representative shall furnish a certificate to the effect in writing to the Contractor. The Contractor shall provide copies of the test/s certificates to the purchaser as may be required.
9. MODE OF DESPATCH:  
Generally, stores should be despatched through Indian Flagged Vessel / Air India or through any other Agency nominated by the purchaser. A copy of the invoice and packing list should invariably be kept inside each of the packages.
10. PORT OF ENTRY:  
Thiruvananthapuram
11. CONSIGNEE:  
Purchase & Stores Officer, Stores, (Valiamala, Thiruvananthapuram)
12. SHIPPING MARKS.  
The mark on the shipping documents such as invoice, bill of lading and on the packages should be as follow:

PURCHASE ORDER NO. ....  
DATED .....

GOVERNMENT OF INDIA  
DEPARTMENT OF SPACE  
LIQUID PROPULSION SYSTEM CENTRE  
DESTINATION: THIRUVANANTHAPURAM / MADRAS /  
BANGALORE  
PORT OF ENTRY: THIRUVANANTHAPURAM / MADRAS /  
BANGALORE

13. INSURANCE OF THE STORES:

The necessity or otherwise of insurance will be as indicated in the Purchase Order.

14. CONTRACTOR'S DEFAULT LIABILITY:

4.1. The purchaser may upon written notice of default to the Contractor terminate the Contract in whole or in part in circumstances detailed hereunder:

- a) If in the judgment of the Purchaser the Contractor fails to make delivery of Stores within the time specified in the Contract/agreement or within the period for which extension has been granted by the Purchaser to the Contractor.
- b) If in the judgment of the Purchaser the Contractor fails to comply with any of the other provisions of this Contract.

15. In the event the Purchaser terminates the Contract in whole or in part as provided in Clause 14 the Purchaser reserves the right to Purchase, upon such terms and in such a manner as he may deem appropriate, stores similar to that terminated and the Contractor shall be liable to the Purchaser for any additional costs for such similar stores and/or for liquidated damages for delay as defined in Clause 19 until such reasonable time as may be required for the final supply of stores.

15.1. If this Contract is terminated as provided in Clause 14 the Purchaser in addition to any other rights provided in this Article, may require the Contractor to transfer title and deliver to the Purchaser under any of the following clauses in the manner and as directed by the Purchaser:

- a) Any completed stores.
- b) Such partially completed stores, drawing, information and Contract rights (hereinafter called manufacturing material) as the Contractor has specifically produced or acquired for the performance of the Contract as terminated. The Purchaser shall pay to the Contractor the Contract price for completed stores delivered to and accepted, by the purchaser and for manufacturing material delivered and accepted.

15.2. In the event the Purchaser does not terminate the Contract as provided in Clause 14, the Contractor shall continue the performance of the Contract in which case he shall be liable to the purchaser for liquidated damages for delays set out in Clause 19 until the stores are accepted.

16. REPLACEMENT:

If the stores or any portion thereof is damaged or lost during transit, the Purchaser shall give notice to the Contractor setting forth particulars of such stores damaged or lost during transit. The replacement of such stores shall be effected by the Contractor within

a reasonable time to avoid unnecessary delay in the intended usage of the Stores. In case the purchaser agrees, the price towards replacement items shall be paid by the purchaser on the basis of original price quoted in the tender or as reasonably worked out from the tender.

17. REJECTION :

In the event that any of the stores supplied by the Contractor is found defective in material or workmanship or otherwise not in conformity with the requirements of the Contract specifications, the purchaser shall either reject the stores or request the Contractor, in writing, to rectify the same. The Contractor, on receipt of such notification, shall either rectify or replace the defective stores free of cost to the purchaser. If the Contractor fails to do so, the purchaser may at his option either –

- a) replace or rectify such defective stores and recover the extra cost so involved from the Contractor, or
- b) terminate the Contract for default as provided under clause 14 above, or
- c) Acquire the defective stores at a reduced price considered equitable under the circumstances. The provision of this article shall not prejudice the Purchaser's rights under clause 19.

18. EXTENSION OF TIME:

If the completion of supply of stores is delayed due to reason of *force majeure* such as acts of god, acts of public enemy, acts of Government, fires, floods, epidemics, quarantine restriction, strikes, freight embargoes, etc., the Contractor shall give notice within 15 days to the purchaser in writing of his claim for an extension of time. The purchaser on receipt of such notice after verification, if necessary, may agree to extend the Contract delivery date as may be reasonable but without prejudice to other terms and conditions of the Contract.

19. DELAY IN COMPLETION / LIQUIDATED DAMAGES:

If the Contractor fails to deliver the stores within the time specified in the Contract or any extension thereof, the purchaser shall recover from the Contractor as liquidated damages a sum of one-half of one percent (0.5 percent) of the Contract price of the undelivered stores for each calendar week of delay. The total liquidated damages shall not exceed ten percent (10 percent) of the Contract price of the unit or units so delayed. Stores will be deemed to have been delivered only when all their component parts are also delivered. If certain components are not delivered in time, the stores will be considered as delayed until such time as the missing parts are delivered.

20. GUARANTEE & REPLACEMENT:

- a) The Contractor shall guarantee that the stores supplied shall comply fully with the specifications laid down for material, workmanship and performance.
- b) For a period of twelve months after the acceptance of the stores, if any defects are discovered therein or any defects therein are found to have developed under proper use arising from faulty materials, design or workmanship, the Contractor shall remedy such defects at his own cost provided he is called upon to do so within a period of 14 months from the date of acceptance thereof by the Purchaser who shall state in writing in what respect the stores or any parts thereof are faulty.
- c) If in the opinion of the purchaser it becomes necessary to replace or renew any defective stores, such replacements or renewals shall be made by the Contractor free of all costs to the purchaser provided the notice informing the Contractor of the defect is given by the purchaser in this regard within the said period of 14 months from the date of acceptance thereof.

- d) Should the Contractor fail to rectify the defects, the purchaser shall have the right to reject or repair or replace at the cost of the Contractor the whole or any portion of the defective stores.
  - e) The decision of the Purchaser, notwithstanding any prior approval or acceptance or inspection thereof on behalf of the purchaser, as to whether or not the stores supplied by the Contractor are defective or any defects has developed within the said period of 12 months or as to whether the nature of the defects requires renewal or replacement shall be final, conclusive and binding on the Contractor.
  - f) To fulfill guarantee conditions outlined in Clause 20 (a) to (e) above, the Contractor shall, at the option of the purchaser, furnish a Bank Guarantee (as prescribed by the purchaser - Bank Guarantee format enclosed) from a Bank approved by the purchaser for an amount equivalent to 10% of the value of the Contract along with first shipment documents. On the performance and completion of the Contract in all respects, the Bank Guarantee will be returned to the Contractor without any interest.
  - g) All the replacement stores shall also be guaranteed for a period of 12 months from the date of arrival of stores at purchaser's site.
  - h) Even while the 12 months guarantee applies to all stores, in case where a greater period is called for by our specifications, then such a specification shall apply, and in such cases, the period of 14 months referred to in Clause 20 (b) and (c) shall be asked for guarantee period plus two months.
21. REQUIREMENT OF ADDITIONAL NUMBERS OF THE STORES/SPARE PARTS ORDERED:  
The Contractor shall also undertake the supply of additional number of items covered by the order as considered necessary by the purchaser at a later date, the actual price to be paid shall be mutually agreed to after negotiations.
22. PACKING:
- a) The Contractor wherever applicable shall pack and crate all stores for sea / air shipment as applicable in a manner suitable for export to a tropical humid climate, in accordance with internationally accepted export practices and in such a manner so as to protect it from damage and deterioration in transit by road, rail or sea for space qualified stores. The Contractors shall be held responsible for all damages due to improper packing.
  - b) The Contractor shall ensure that each box / unit of shipment is legible and properly marked for correct identification. The failure to comply with this requirement shall make the Contractor liable for additional expenses involved.
  - c) The Contractor shall notify the purchaser of the date of shipment from the port of embarkation as well as the expected date of arrival of such shipment at the designated port of arrival.
  - d) The Contractor shall give complete shipment information concerning the weight, size, content of each packages, etc.
  - e) Transshipment of equipment shall not be permitted except with the written permission of the purchaser.
  - f) Apart from the despatch documents negotiated through Bank, the following documents shall also be airmailed to the purchaser within 7 days from the date of shipment by sea and within 3 days in case of air-consignments:
    - Commercial Bill of Lading / Air Way Bill / Post parcel Receipt. (Two non-negotiable copies)

- Invoice (3 copies)
- Packing List (3 copies)
- Test Certificate (3 copies)
- Certificate of Origin.

The Contractor shall also ensure that one copy of the packing list is enclosed in each case

23. ARBITRATION:

If at any time any question, dispute or difference whatsoever shall arise between the purchaser and the Contractor upon or in connection with this Contract, either party may forthwith give to the other notice in writing of the existence of such question, dispute or difference and the same shall be referred to the adjudication of two arbitrators, one to be nominated by purchaser, other by a Contractor and in the event of any difference of opinion, the arbitrators will refer the matter to the umpire. The arbitration shall be conducted in accordance with the rules and procedure for arbitration of the International Chamber of Commerce at Paris. The expenses of the arbitrators and umpire shall be paid as may be determined by them. However, the venue of such arbitration should be in India.

24. LANGUAGE AND MEASURES:

All documents pertaining to the Contract including specification, schedule, notice, correspondence, operating and maintenance instructions, drawings or any other writings shall be written in English language. The metric system of measurement shall be used exclusively in the Contract.

25. INDEMNITY:

The Contractor shall warrant and be deemed to have warranted that all Stores supplied against this Contract are free and clean of infringement of any patent, copyright or trade mark and shall at all times indemnify the purchaser against all claims which may be made in respect of stores for infringement of any right protected by Patent, Registration of design or Trade Mark, and shall take all risk of accident or damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for the sufficiency of all the means used by him for the fulfillment of the Contract.

26. COUNTER TERMS AND CONDITIONS OF SUPPLIERS:

Where counter terms and conditions/printed or cyclostyled conditions have been offered by the supplier, the same shall not be deemed to have been accepted by the purchaser unless specific written acceptance thereof is obtained.

27. SECURITY INTEREST:

On each item to be delivered under this Contract, including an item of work in progress in respect of which payments have been made in accordance with the terms of the Contract, purchaser shall have a security interest in such items which shall be deemed to be released only at the time when the applicable deliverable item is finally accepted and delivered to the purchaser in accordance with the terms of the Contract. Such security interest of the purchaser shall constitute a prior charge as against any other charge or interest created in respect of such items by any entity.

28. BANK CHARGES:

While the purchaser shall bear the bank charge payable to his Bankers (State Bank of India), the Contractor shall bear the Bank charges payable to his Bankers including the cheques towards advising amendment commissions.

29. TRAINING:

The Contractor shall, if required by the purchaser, provide facilities for the practical

training of Purchaser's engineering / technical personnel from India and for their active association on the manufacturing processes throughout the manufacturing period of the Contract / stores, number of such personnel to be mutually agreed upon.

30. APPLICABLE LAW:

The Contract shall be interpreted, construed and governed by the laws of India.

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