

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
ISRO PROPULSION COMPLEX (IPRC)
MAHENDRAGIRI**

**Tender for Outsourcing of Quality Control Activities in SR-ESSI,SR-
ESEI/SR-ESCI&NDT/SRMG/SRSE & SR-EST/SRTG/SRSE**

Bids to be submitted online

Tender No.: IPRC/PURGP2/IP202400075601 dated 28-06-2024

A. Tender Details

Tender No : **IPRC/PURGP2/IP202400075601**

Tender Date : **28-06-2024**

Tender Classification: **WORKS**

Purchase Entity : **PURGP2**

Centre : **ISRO PROPULSION COMPLEX (IPRC)**

Outsourcing of Quality Control Activities in SR-ESSI,SR-ESEI/SR-ESCI&NDT/SRMG/SRSE & SR-EST/SRTG/SRSE

- 1.Kindly read all the instructions before quoting.
- 2.Foreign vendors are not permitted to quote.
- 3.Last minute clarification on tenders will not be entertained.
- 4.This is an E-Tender. Hence Postal/Fax/Email tenders will not be accepted.
- 5.Acceptance of SD & LD are specified in your offer.

A.1 Tender Schedule

Bid Submission Start Date : **28-06-2024 17:00**

Bid Clarification Due Date : **05-07-2024 13:45**

Bid Submission Due Date : **30-07-2024 13:45**

Bid Opening Date : **30-07-2024 13:46**

B. Tender Attachments

Technical Write-up/Drawings

Document : Terms & conditions of Sporadic work outsourcing package

Document : Scope of work of Sporadic work outsourcing contract

Document : Instruction to Bidder for Sporadic work outsourcing contract

Document : Item specification of Sporadic work outsourcing package

Instructions To Vendors

5. INSURANCE TO WORKERS

1. The Vendor shall arrange for a comprehensive insurance policy to all their workers/ human resources for the Sum assured as follows:

2. (i) In the event of death or permanent disablement/ disability resulting from loss of limbs - Rs. 10.00 Lakh

(ii) In the event of other permanent disablement/ disability - Rs. 7.00 Lakh

3. The number of workers covered under the insurance shall be as per the scope defined in the Purchase order. The Vendor, at their expense, shall arrange insurance policy from any Insurance company as approved of by Insurance Regulatory and Development Authority (IRDA) to all their workers as above within 15 days from the date of Purchase order. The Purchaser will not be obliged/ liable to pay or reimburse any premium or expenditure incurred by the Vendor on this account.

4. In case of substitution of any worker, the substituted worker shall also have insurance coverage. The Purchaser will not be obliged/ liable to pay or reimburse any premium or expenditure incurred by the Vendor on this account.

5. In case of death of or permanent disablement/disability to any worker while at work inside the Purchasers premise, the Purchaser will disburse compensation equal to the aforementioned Sum assured to the dependent of the victim (in case of death) or the victim directly (in case of permanent disablement/ disability) duly observing the procedure. The Vendor shall make necessary arrangements to refund the above compensation amount to the Purchaser (i) within 2 weeks from the date of settlement of claim by the Insurance company or (ii) within 3 months from the date of disbursement of compensation amount by the Purchaser to the victim or dependent of victim or (iii) 1 week before

expiry of validity period of the Purchase order, whichever is earlier. In case of any delay in refunding the compensation amount as aforesaid, the Purchaser shall have the right to recover the compensation amount from the payment(s) due to the Vendor or Security deposit(s) submitted by the Vendor either under the subject Purchase order or any other Purchase order(s)/ Work order(s)/ Contract(s) awarded by the Purchaser to the Vendor. It is onus on the part of the Vendor to get settlement of compensation claim from the Insurance company upon due procedure.

6. Some of the key terminologies involved are defined below:

7. Accident: Any death or permanent disablement/ disability resulting solely and directly from any unintended and unforeseen injurious occurrence caused during the maintenance, operations and other supporting/ outsourced services rendered by the Vendors/ Service Providers [Private Companies, Firms & Contractors] engaged by the Purchaser within the premises of its work-site.

8. Dependent: As defined in the Employees Compensation Act, 1923

9. Victim: Any person who suffers permanent disablement/ disability or dies in an accident that occurred within the premises of the Purchasers work-site and during the discharge of duties, as defined in these Guidelines.

10. Permanent Disablement/ disability: A disablement/ disability that is classified as a permanent total disablement/ disability under the proviso to Section 2(l) of the Employees Compensation Act, 1923.

6. GENERAL TERMS AND CONDITIONS SWOP

1. GENERAL TERMS AND CONDITIONS SWOP

2. All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, amount quoted in words shall prevail.

3. GST where legally leviable and intended to be claimed should be distinctly shown separately in the tender.

4. In case the vendor falls in the category of Small Scale Industries(SSIs), who are registered with NSI, Public Sector Undertakings (PSUs) and Micro & Small Enterprises (MSEs) the same shall be mentioned in their quote for evaluation.

5. IPRC reserves the right to accept or reject any quotation in full or part thereof by recording the reasons.

6. IPRC shall not be responsible for failure of vendors in submitting bids online caused due to technical reasons at vendor end such as network or power failures, computer failure, internet-browser, mistakes / errors in filling the bids on line by vendor etc.
7. Last minute request for the extension of the due date w.r.t. any technical issue at Vendors/Suppliers side will not be considered. You may submit your quotation online well in advance instead of waiting till the last date to ensure that Internet problem and network condition does not cause problem
8. LIQUIDATED DAMAGES: Delivery is the essence of the contract. Items shall be delivered within stipulated period. If delivery is delayed beyond the stipulated delivery period mentioned in the purchase order or any extension thereof, an amount equal to 0.5% per week shall be recovered, subject to a maximum of 10% of the order value shall be deducted from your bills due.
9. Offers sent through post, telegram, fax, e-mail, courier will not be considered. Partially completed / incomplete tenders shall not be considered.
10. Only authorized dealers/agents or their accredited representatives for original manufacturers have to submit the quotation with documentary evidence.
11. SECURITY DEPOSIT : The Vendor shall guarantee faithful execution of the Work order in accordance with the terms and conditions specified. As a performance security, the Vendor shall furnish Security deposit for 5% of the total Work order price in the form of Demand draft/ Fixed deposit receipt/ Bankers cheque/ Bank guarantee issued by a Nationalized/ Scheduled Bank approved by Reserve Bank of India valid till expiry of the Work order with additional claim period of 6 months. The Security deposit shall not carry any interest and shall be returned on completion of all the contractual obligations. The Security deposit has to be executed within 15 days from the date of Work order as per the prescribed format.
- Medium, Small & Micro Enterprises (MSMEs) and Startup companies are also required to submit Security deposit in the form of Demand draft/ Fixed deposit receipt/ Banker's cheque/ Bank guarantee.
- In case of breach of any of the terms and conditions under the Work order, the Vendor shall forfeit the Security deposit to the Purchaser. In addition, the Work order is also liable to be terminated and any amount due to the Vendor against any other Work order from the Purchaser is also liable to be appropriated.
12. The goods or material offered should be strictly as per our specifications. Change(s) in specifications, if any, should be clearly indicated by the supplier in his quotation. The supplier should also indicate make/type No. of the materials or equipment offered. Vague terms such as Best Indian, Best Indigenous and Imported make should not be used.

13. The offer should be valid for a minimum period of 120 days from the date of opening of the bids (Technical bid in case of 2-part tender).

14. 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 tenderer shall supply the same at the rates quoted.

15. Wherever the tenderer is asked to submit sample for evaluation of tenders, the same shall be submitted along with your quote.

7. Conditions for BIDDER FROM A COUNTRY WHICH SHARES LAND BORDER WITH INDIA

1. Any false declaration and non-compliance of the above would be a ground for immediate rejection of offer or termination of the contract and further legal action in accordance with the laws.

2. As per the Rule 144(xi) of General Financial Rule, 2017, any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the competent authority ie., Department for Promotion of Industry and Internal Trade (DPIIT).

3. Hence, Vendors or Agents of a Vendor (Indian or others) from a country sharing border with India shall submit copy of valid registration made with Department for Promotion of Industry and Internal Trade (DPIIT), Government of India along with the tender mandatorily, without which the offer will be treated as invalid.

4. Model Certificate for Tenders

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered

5. Validity of Registration: Registration should be valid at the time of submission of bids and should be valid at the time of placement of order.

C. Bid Templates

C.1 Technical Bid - Outsourcing of Quality Control Activities in SR-ESSI,SR-ESEI/SR-ESCI&NDT/SRMG/SRSE & SR-EST/SRTG/SRSE

- 1. Sporadic Work Outsourcing Contract Checking of level gauges of the propellant and water tanks and noting the minimum and maximum liquid levels in the tanks for each test/ operation.**
- 2. Sporadic Work Outsourcing Contract Checking of measurement devices viz., pressure gauges, flow meters, thrust balance etc., and their insitu-calibration in the facilities prior to each test/ operation**
- 3. Sporadic Work Outsourcing Contract Pneumatic leak check of lines individually for the respective operating pressure and check of the entire joints with snoop solution for each series of tests.**
- 4. Sporadic Work Outsourcing Contract Pneumatic leak check of command system lines along with their distribution joints with snoop solution for each series of tests/operations.**
- 5. Sporadic Work Outsourcing Contract Pneumatic leak check of run tanks and H.P. Cylinders with snoop solution for each series of tests/ operations.**
- 6. Sporadic Work Outsourcing Contract Checking of all the pressure regulators for the operation and pressure setting for each test.**
- 7. Sporadic Work Outsourcing Contract Functional checks of electro pneumatic valves for each test series**
- 8. Sporadic Work Outsourcing Contract Pneumatic leaks check of electro pneumatic valve joints with snoop solution for each series of tests/operations.**
- 9. Sporadic Work Outsourcing Contract Functional checks on vacuum pumps and valves for each test.**
- 10. Sporadic Work Outsourcing Contract Vacuum leak checks for vacuum chambers.**

- 11. Sporadic Work Outsourcing Contract Functional and pneumatic leak checking of control valves for each test series.**
- 12. Sporadic Work Outsourcing Contract Checking of pressure gauges in the facilities for the periodical calibration validity.**
- 13. Sporadic Work Outsourcing Contract Checking of safety relief valves in facilities for the periodical calibration validity.**
- 14. Sporadic Work Outsourcing Contract Checking of filters for any damage under 10X magnification and clearing for the tests.**
- 15. Sporadic Work Outsourcing Contract Inspection of Hydro-testing of flexible hoses**
- 16. Sporadic Work Outsourcing Contract Inspection during replacement of burst diaphragms & bellows**
- 17. Sporadic Work Outsourcing Contract Pneumatic leak checks of propellant run tanks, storage tanks, internal and road tankers**
- 18. Sporadic Work Outsourcing Contract Checking of H.P. Cylinder in the facilities for the periodical testing validity and subsequent leak check.**
- 19. Sporadic Work Outsourcing Contract Inspection of load testing on material handling equipments like E.O.T. Cranes, chain pulley blocks and hydraulic moving platforms.**
- 20. Sporadic Work Outsourcing Contract Hydro-test of facility run tanks and active fluid circuits.**
- 21. Sporadic Work Outsourcing Contract Verification of safety equipments viz., scrubbers, pollution monitors, deluges etc.,**
- 22. Sporadic Work Outsourcing Contract Visual inspection of for the facility elements like structures, pipes, flow components , fittings & filler materials and verification of certificates**

- 23. Sporadic Work Outsourcing Contract Witnessing of welding procedure & welders' performance qualification tests.**
- 24. Sporadic Work Outsourcing Contract Inspection of fit-up for welding joints and clearance for welding.**
- 25. Sporadic Work Outsourcing Contract Dye penetrant test of welded joints**
- 26. Sporadic Work Outsourcing Contract Verification of radiography for butt welded joints**
- 27. Sporadic Work Outsourcing Contract Witnessing of hydro-testing for the fabricated lines**
- 28. Sporadic Work Outsourcing Contract Verification of pickling & passivation of lines**
- 29. Sporadic Work Outsourcing Contract Checking of moisture level for propellant and gas lines.**
- 30. Sporadic Work Outsourcing Contract Checking of contamination level in lines.**
- 31. Sporadic Work Outsourcing Contract Pneumatic leak checks on fluid circuits.**
- 32. Sporadic Work Outsourcing Contract Inward inspection of bought out items at IPRC stores for MIRV clearance.**
- 33. Sporadic Work Outsourcing Contract Visual Inspection of Components**
- 34. Sporadic Work Outsourcing Contract Verification and measurement of Metal Cutting Operations on Structures**
- 35. Sporadic Work Outsourcing Contract Verification of End Fittings before welding**
- 36. Sporadic Work Outsourcing Contract Hydro test related inspection of Plumbings, Hoses, Bellows and Components**

- 37. Sporadic Work Outsourcing Contract Pneumatic test related inspection of Plumbings, Hoses, Bellows and Components**
- 38. Sporadic Work Outsourcing Contract MSLD Leak Check of Lines, Bellows and Components**
- 39. Sporadic Work Outsourcing Contract Cleanliness Check related inspection of Plumbings, Hoses and Components**
- 40. Sporadic Work Outsourcing Contract Ball Rolling test of Plumbings**
- 41. Sporadic Work Outsourcing Contract Weighing of Components**
- 42. Sporadic Work Outsourcing Contract Torque Verification of joints and fasteners**
- 43. Sporadic Work Outsourcing Contract Leak testing of Interfaces**
- 44. Sporadic Work Outsourcing Contract Inspection activities(leak checks)at PPTF, WFTF, ATS and PTS facilities**
- 45. Sporadic Work Outsourcing Contract Verification of routing of Fluid circuits and interfaces**
- 46. Sporadic Work Outsourcing Contract Verification of Hardware Clearance, Reports and, Documents**
- 47. Sporadic Work Outsourcing Contract Marking on thrust chamber for gap measurement, projection measurement and alignment inspection by indexing**
- 48. Sporadic Work Outsourcing Contract Thrust chamber measurements before and after throat fixing**
- 49. Sporadic Work Outsourcing Contract Thrust chamber alignment inspection measurements**
- 50. Sporadic Work Outsourcing Contract Coating thickness measurements, roughness**

measurements and UV lamp inspection during thrust chamber coating and sub systems components coating

51. Sporadic Work Outsourcing Contract MSLD Leak Check of engine interfaces

52. Sporadic Work Outsourcing Contract Tubing ball checks

53. Sporadic Work Outsourcing Contract Hydro test related inspection of tubings and components

54. Sporadic Work Outsourcing Contract Visual inspection of components for defects in functionally critical areas and surfaces

55. Sporadic Work Outsourcing Contract Visual inspection of bought-outs before assembly

56. Sporadic Work Outsourcing Contract Visual inspection of tubings for defects in leak arresting surface and external surfaces

57. Sporadic Work Outsourcing Contract Post hot test inspection

58. Sporadic Work Outsourcing Contract Piston travel, projection and gap measurements during subsystem assembly and integration

59. Sporadic Work Outsourcing Contract Tubing routing checks

60. Sporadic Work Outsourcing Contract Leak tests for integrated engine assembly

Common Specifications (Applicable for all items)

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Name of the Bidder	Yes / No	Yes / No / Explain		
2	Full address	Yes / No	Yes / No / Explain		

3	Landline telephone number	Yes / No	Yes / No / Explain		
4	Cellular mobile telephone number	Yes / No	Yes / No / Explain		
5	Fax number	Yes / No	Yes / No / Explain		
6	Email ID	Yes / No	Yes / No / Explain		
7	Name of the Proprietor/ Manager/ President/ Secretary/ Chief Executive/ Authorized signatory with Job title (Designation) and Affiliation (Department)	Yes / No	Yes / No / Explain		
8	Status of the Bidder as to whether Central/ State Government Department/ Enterprise/ Autonomous body or Private company or Firm or Agency or Society, etc	Yes / No	Yes / No / Explain		
9	Rule/ Act under which the Bidder is registered.	Yes / No	Yes / No / Explain		
10	Registration number of the Bidder. Attach copy of registration certificate.	Yes / No	Yes / No / Explain		
11	Income tax Permanent Account Number (PAN). Attach copy of card.	Yes / No	Yes / No / Explain		

12	Income Tax Assessee "Status" of the Bidder. Attach Income Tax return acknowledgement or relevant document for the assessment year previous to the one in which the Tender enquiry is floated	Yes / No	Yes / No / Explain		
13	Aadhaar/ Udyog Aadhaar number. Attach copy of card/ letter.	Yes / No	Yes / No / Explain		
14	Goods & Service Tax (GST) Identification Number. Attach copy of certificate.	Yes / No	Yes / No / Explain		
15	Employees Provident Fund (EPF) Registration number. Attach copy of certificate.	Yes / No	Yes / No / Explain		
16	Employees State Insurance (ESI) Registration number. Attach copy of certificate.	Yes / No	Yes / No / Explain		
17	Name of the Banker, Branch and City/ Town/ Village	Yes / No	Yes / No / Explain		
18	Bank account number	Yes / No	Yes / No / Explain		
19	IFSC code of Bank	Yes / No	Yes / No / Explain		

20	<p>Has the Bidder completed similar work (SWOP) with any Central/State Govt. Dept/Enterprise/Autonomous body in 7years ending last day of month previous to the month of release of this Tender enquiry? Attach copy of work order/work completion certificate</p>	Yes / No	Yes / No / Explain		
21	<p>Confirm compliance with Terms & conditions in Annexure 1. Deviation, if any, is to be explicitly declared under "Remark" column. If no deviation, it will be presumed that the Bidder agrees to comply with each and every aspect of the aforesaid document.</p>	Yes / No	Yes / No / Explain		

22	Confirm compliance with Scope of work in Annexure 2. Deviation, if any, is to be explicitly declared under the "Remark" column. If no deviation, it will be presumed that the Bidder agrees to comply with each and every aspect of the aforesaid document.	Yes / No	Yes / No / Explain		
23	Confirm that the Instructions to Bidders given in Annexure 3 are read and understood thoroughly.	Yes / No	Yes / No / Explain		

Supporting Documents required from Vendor

1. Registration number of the Bidder. Attach copy of registration certificate.
2. Income tax Permanent Account Number (PAN). Attach copy of card.
3. Income Tax Assessee "Status" of the Bidder. Attach Income Tax return acknowledgement or relevant document for the assessment year previous to the one in which the Tender enquiry is floated
4. Aadhaar/ Udyog Aadhaar number. Attach copy of card/ letter.
5. Goods & Service Tax (GST) Identification Number. Attach copy of certificate.
6. Employees Provident Fund (EPF) Registration number. Attach copy of certificate.
7. Employees State Insurance (ESI) Registration number. Attach copy of certificate.
8. If similar work completed with any Central/ State Government Dept/ Enterprise/Autonomous

body in the 7 year ending the last day of the month previous to the month of release of this Tender, attach work order/work completion certificate copy by client.

5 additional documents can be uploaded by the vendor

C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	Taxes and other costs (Specify)	Yes / No / Explain	
2	Validity of Offer (specify)	Yes / No / Explain	
3	Delivery Period (specify)	Yes / No / Explain	
4	Delivery Terms: Normal delivery terms - FOR Destination (i.e., IPRC, Mahendragiri)	Yes / No / Explain	
5	PAYMENT TERMS - Pro-rata monthly payment for completed works.	Yes / No / Explain	
6	Security Deposit: Supplier shall submit an interest free Security Deposit for an amount equivalent to 5% of the order value, obtained through Bank Guarantee or fixed deposit receipt from any of the Nationalized/Scheduled Banks executed on non-judicial stamp paper of Rs.200/- value, and shall be kept valid for a period of sixty days beyond the date for completion of the Purchase Order. [Format enclosed]. The Security Deposit can be submitted within 15 days from date of PO.	Yes / No / Explain	
7	Confirm: Conditions for BIDDER FROM A COUNTRY WHICH SHARES LAND BORDER WITH INDIA	Yes / No / Explain	
8	MSE preference is applicable only against the claim of the manufacturer and production of documentary evidence by the manufacturer for the registration of particular item under MSE.	Yes / No / Explain	
9	Liquidated Damages - In the event, the Contractor fails to complete the work specified within the time (by not engaging the required manpower as envisaged in the Contract or any other reason attributable to the Contractor) an amount equivalent to 0.5% per week shall be recovered for the delayed period subject to a maximum of 10% Contract value.	Yes / No / Explain	
10	Any other terms	-	

11	Insurance Policy compliance - The number of workers covered under the insurance shall be as per the scope defined in the Purchase Order. The Vendor, at their expense, shall arrange insurance policy from any insurance company approved by Insurance Regulatory and Development authority (IRDA) to all their workers as per the terms and conditions specified, within 15 days from the date of Purchase Order. The Purchaser will not be obliged / liable to pay or reimburse any premium or expenditure incurred by the Vendor on this account. In addition to the submission of Order acknowledgement and Security Deposit, Vendor shall also furnish copy of valid insurance policy after receipt and acceptance of the Purchase Order.	Yes / No / Explain	
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C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Remark
1	Sporadic Work Outsourcing Contract Checking of level gauges of the propellant and water tanks and noting the minimum and maximum liquid levels in the tanks for each test/ operation.	904.00 Nos.		-		

2	Sporadic Work Outsourcing Contract Checking of measurement devices viz., pressure gauges, flow meters, thrust balance etc., and their insitu-calibration in the facilities prior to each test/operation	1168.00 Nos.		-		
3	Sporadic Work Outsourcing Contract Pneumatic leak check of lines individually for the respective operating pressure and check of the entire joints with snoop solution for each series of tests.	10570.00 Joint		-		
4	Sporadic Work Outsourcing Contract Pneumatic leak check of command system lines along with their distribution joints with snoop solution for each series of tests/operations.	7550.00 Joint		-		

5	Sporadic Work Outsourcing Contract Pneumatic leak check of run tanks and H.P. Cylinders with snoop solution for each series of tests/ operations.	9060.00 Nos.		-		
6	Sporadic Work Outsourcing Contract Checking of all the pressure regulators for the operation and pressure setting for each test.	9040.00 Nos.		-		
7	Sporadic Work Outsourcing Contract Functional checks of electro pneumatic valves for each test series	4832.00 Nos.		-		
8	Sporadic Work Outsourcing Contract Pneumatic leaks check of electro pneumatic valve joints with snoop solution for each series of tests/operations.	10570.00 Joint		-		

9	Sporadic Work Outsourcing Contract Functional checks on vacuum pumps and valves for each test.	512.00 Nos.		-		
10	Sporadic Work Outsourcing Contract Vacuum leak checks for vacuum chambers.	256.00 Nos.		-		
11	Sporadic Work Outsourcing Contract Functional and pneumatic leak checking of control valves for each test series.	1024.00 Nos.		-		
12	Sporadic Work Outsourcing Contract Checking of pressure gauges in the facilities for the periodical calibration validity.	1167.00 Nos.		-		
13	Sporadic Work Outsourcing Contract Checking of safety relief valves in facilities for the periodical calibration validity.	502.00 Nos.		-		

14	Sporadic Work Outsourcing Contract Checking of filters for any damage under 10X magnification and clearing for the tests.	274.00 Nos.		-		
15	Sporadic Work Outsourcing Contract Inspection of Hydro-testing of flexible hoses	248.00 Nos.		-		
16	Sporadic Work Outsourcing Contract Inspection during replacement of burst diaphragms & bellows	62.00 Nos.		-		
17	Sporadic Work Outsourcing Contract Pneumatic leak checks of propellant run tanks, storage tanks, internal and road tankers	256.00 Nos.		-		
18	Sporadic Work Outsourcing Contract Checking of H.P. Cylinder in the facilities for the periodical testing validity and subsequent leak check.	126.00 Nos.		-		

19	Sporadic Work Outsourcing Contract Inspection of load testing on material handling equipments like E.O.T. Cranes, chain pulley blocks and hydraulic moving platforms.	24.00 Nos.		-		
20	Sporadic Work Outsourcing Contract Hydro-test of facility run tanks and active fluid circuits.	354.00 Nos.		-		
21	Sporadic Work Outsourcing Contract Verification of safety equipments viz., scrubbers, pollution monitors, deluges etc.,	176.00 Nos.		-		
22	Sporadic Work Outsourcing Contract Visual inspection of for the facility elements like structures, pipes, flow components , fittings & filler materials and verification of certificates	7940.00 Nos.		-		

23	Sporadic Work Outsourcing Contract Witnessing of welding procedure & welders' performance qualification tests.	36.00 Nos.		-		
24	Sporadic Work Outsourcing Contract Inspection of fit-up for welding joints and clearance for welding.	1672.00 Joint		-		
25	Sporadic Work Outsourcing Contract Dye penetrant test of welded joints	2290.00 Joint		-		
26	Sporadic Work Outsourcing Contract Verification of radiography for butt welded joints	618.00 Joint		-		
27	Sporadic Work Outsourcing Contract Witnessing of hydro-testing for the fabricated lines	176.00 Nos.		-		
28	Sporadic Work Outsourcing Contract Verification of pickling & passivation of lines	176.00 Nos.		-		

29	Sporadic Work Outsourcing Contract Checking of moisture level for propellant and gas lines.	176.00 Nos.		-		
30	Sporadic Work Outsourcing Contract Checking of contamination level in lines.	176.00 Nos.		-		
31	Sporadic Work Outsourcing Contract Pneumatic leak checks on fluid circuits.	88.00 Nos.		-		
32	Sporadic Work Outsourcing Contract Inward inspection of bought out items at IPRC stores for MIRV clearance.	1519.00 Nos.		-		
33	Sporadic Work Outsourcing Contract Visual Inspection of Components	64146.00 Nos.		-		
34	Sporadic Work Outsourcing Contract Verification and measurement of Metal Cutting Operations on Structures	6306.00 Nos.		-		

35	Sporadic Work Outsourcing Contract Verification of End Fittings before welding	9495.00 Joint		-		
36	Sporadic Work Outsourcing Contract Hydro test related inspection of Plumbings, Hoses, Bellows and Components	10785.00 Nos.		-		
37	Sporadic Work Outsourcing Contract Pneumatic test related inspection of Plumbings, Hoses, Bellows and Components	8070.00 Nos.		-		
38	Sporadic Work Outsourcing Contract MSLD Leak Check of Lines, Bellows and Components	1860.00 Nos.		-		
39	Sporadic Work Outsourcing Contract Cleanliness Check related inspection of Plumbings, Hoses and Components	11085.00 Nos.		-		
40	Sporadic Work Outsourcing Contract Ball Rolling test of Plumbings	4453.00 Nos.		-		

41	Sporadic Work Outsourcing Contract Weighing of Components	41808.00 Nos.		-		
42	Sporadic Work Outsourcing Contract Torque Verification of joints and fasteners	102198.00 Joint		-		
43	Sporadic Work Outsourcing Contract Leak testing of Interfaces	25527.00 Joint		-		
44	Sporadic Work Outsourcing Contract Inspection activities(leak checks)at PPTF, WFTF, ATS and PTS facilities	5467.00 Nos.		-		
45	Sporadic Work Outsourcing Contract Verification of routing of Fluid circuits and interfaces	10050.00 Joint		-		
46	Sporadic Work Outsourcing Contract Verification of Hardware Clearance, Reports and, Documents	47550.00 Nos.		-		

47	Sporadic Work Outsourcing Contract Marking on thrust chamber for gap measurement , projection measurement and alignment inspection by indexing	5520.00 Nos.		-		
48	Sporadic Work Outsourcing Contract Thrust chamber measurements before and after throat fixing	37200.00 Nos.		-		
49	Sporadic Work Outsourcing Contract Thrust chamber alignment inspection measurements	11280.00 Nos.		-		
50	Sporadic Work Outsourcing Contract Coating thickness measurements, roughness measurements and UV lamp inspection during thrust chamber coating and sub systems components coating	64350.00 Nos.		-		
51	Sporadic Work Outsourcing Contract MSLD Leak Check of engine interfaces	1749.00 Joint		-		

52	Sporadic Work Outsourcing Contract Tubing ball checks	3684.00 Nos.		-		
53	Sporadic Work Outsourcing Contract Hydro test related inspection of tubings and components	1899.00 Nos.		-		
54	Sporadic Work Outsourcing Contract Visual inspection of components for defects in functionally critical areas and surfaces	40029.00 Nos.		-		
55	Sporadic Work Outsourcing Contract Visual inspection of bought-outs before assembly	101829.00 Nos.		-		
56	Sporadic Work Outsourcing Contract Visual inspection of tubings for defects in leak arresting surface and external surfaces	6858.00 Nos.		-		
57	Sporadic Work Outsourcing Contract Post hot test inspection	17412.00 Nos.		-		

58	Sporadic Work Outsourcing Contract Piston travel, projection and gap measurements during subsystem assembly and integration	7200.00 Nos.		-		
59	Sporadic Work Outsourcing Contract Tubing routing checks	6582.00 Joint		-		
60	Sporadic Work Outsourcing Contract Leak tests for integrated engine assembly	72198.00 Joint		-		