## **Processing of Propellant Composition HEM-CP-1403 for Rocket Motor**

DRDO has developed technology for manufacturing of composite solid propellant for rocket motor used in aerospace vehicles. Propellant formulation and their processing methodology have been designed and developed by DRDO to achieve all QRs.

Exhaustive studies and experimentations were carried out to finalize the propellant compositions and processing methodologies in these systems to realize the performance requirements. The present technology has been developed for composite propellant of two stage rocket motor.

All the development activities such as establishment of composite propellant composition, processing methodologies and performance evaluation trials have been completed, meeting the requirements.

1. Interested companies/ industries are requested to apply against this EoI to following address:-

To,

The Director

**High Energy Materials Research Laboratory (HEMRL)** 

DRDO, Govt. of India, Ministry of Defence,

Sutarwadi, Pune 411 021

Phone No: 020-25912101

E-mail: director.hemrl@gov.in

Fax No: 020-25869316

2. A copy of interest may be sent to the following address without any attachment:-

To,

The Director,

Directorate of Industry Interface & Technology Management (DIITM),

Room No. 447, DRDO Bhawan, Rajaji Marg, New Delhi-110 011

E-mail: diitm.hqr@gov.in

Phone No. 011-23007446

Fax-011-23793008

All industries interested in seeking ToT are requested to apply in the format given below. Kindly fill in the fields. The list of documents to be attached is provided in Annexure – I. Kindly provide the reference of page no. of supporting document in the relevant field of form.

# PART-1

## **General Information**

(Please enclose documents in support of information provided)

| 1.  | Name of the Technology requested for Technology Transfer (Technology name and concerned Lab, Category)            |  |
|-----|---|--|
| 2.  | Name of the industry/ organization  |  |
| 3.  | Complete Address and other details  |  |
|     | Registered Office State Phone No Fax Email Website  |  |
|     | Factory State Phone No Fax Email Website  |  |
| 4.  | Point of Contact Name Designation Address Mobile No Ph No Email ID  |  |
| 5.  | NAME OF CMD/ MD /PARTNERS/<br>PROPRIETOR/ etc<br>Name<br>Designation<br>Address<br>Mobile No<br>Ph No<br>Email ID |  |
| 6.  | Date of Incorporation of company  |  |
| 7.  | Foreign Direct Investment in company (if any in %)  |  |
| 8.  | Shareholding pattern  |  |
| 9.  | Turn over as per Audited Balance Sheet for the preceding three years. Year Year Year                              |  |
| 10. | Annual budget for R&D during last three years (if any) Year Year  |  |

| 11. Income Tax returns for the preceding three years period Year Year Year Year Year Year Year Year   |     | Year  |  |
|---|-----|---|--|
| DPSU, Private Limifed, Public Limited, Partnership, Proprietary, Ex- Serviceman Unit  13. Category of industry Large Scale, Medium Scale, Small Scale, Micro, Startup  14. MSME Registration No  15. Certificates of registration as a manufacturing unit, if any.  16. If Startup, DPIIT Registration No  17. UDYOG AADHAR No  18. PAN Number  19. Details of Industrial license for defence manufacturing issued by DPIIT (if any)  20. Details of PESO license (if any)  21. GST Number  22. Nature of business Manufacturing/ Sole Selling or Authorized Agent/ Assembler/ Traders/ Dealer/ Processor/ Repacker/ Others  23. Details of current products and services Products and services Supplied (please specify Govt/ Domestic market/ Export)  24. Record of past performance (e.g., Supply orders executed against of Ministry of Defence orders, Public Sectors and Paramilitary Forces, if any).  25. Details of registration with NSIC / SSI, DGS&D, other Defence Department, other Govt. Dept, membership of FICCI/ASSOCHAM/CII or other Industrial Association (Attach relevant copies of registration letters)  26. Have you already taken any technology from DRDO (If yes, give details attaching separate sheet)  Name of the Technology, Lab, Year, License number & Status | 11. | Income Tax returns for the preceding three years period Year Year   |  |
| Large Scale, Medium Scale, Small Scale, Micro, Startup  14. MSME Registration No  15. Certificates of registration as a manufacturing unit, if any.  16. If Startup, DPIIT Registration No  17. UDYOG AADHAR No  18. PAN Number  19. Details of Industrial license for defence manufacturing issued by DPIIT (if any)  20. Details of PESO license (if any)  21. GST Number  22. Nature of business Manufacturing/ Sole Selling or Authorized Agent/ Assembler/ Traders/ Dealer/ Processor/ Repacker/ Others  23. Details of current products and services Products and services Supplied (please specify Govt/ Domestic market/ Export)  24. Record of past performance (e.g., Supply orders executed against of Ministry of Defence orders, Public Sectors and Paramilitary Forces, if any).  25. Details of registration with NSIC / SSI, DGS&D, other Defence Department, other Govt. Dept, membership of FICCI/ASSOCHAM/CII or other Industrial Association (Attach relevant copies of registration letters)  26. Have you already taken any technology from DRDO (If yes, give details attaching separate sheet)  Name of the Technology, Lab, Year, License number & Status  | 12. | DPSU, Private Limited, Public Limited,  |  |
| 15. Certificates of registration as a manufacturing unit, if any.  16. If Startup, DPIIT Registration No  17. UDYOG AADHAR No  18. PAN Number  19. Details of Industrial license for defence manufacturing issued by DPIIT (if any)  20. Details of PESO license (if any)  21. GST Number  22. Nature of business Manufacturing/ Sole Selling or Authorized Agent/ Assembler/ Traders/ Dealer/ Processor/ Repacker/ Others  23. Details of current products and services Products and services Supplied (please specify Govt/ Domestic market/ Export)  24. Record of past performance (e.g., Supply orders executed against of Ministry of Defence orders, Public Sectors and Paramilitary Forces, if any).  25. Details of registration with NSIC / SSI, DGS&D, other Defence Department, other Govt. Dept, membership of FICCI/ASSOCHAM/CII or other Industrial Association (Attach relevant copies of registration letters)  26. Have you already taken any technology from DRDO (If yes, give details attaching separate sheet)  Name of the Technology, Lab, Year, License number & Status  | 13. | Large Scale, Medium Scale, Small Scale, Micro,  |  |
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| 17. UDYOG AADHAR No  18. PAN Number  19. Details of Industrial license for defence manufacturing issued by DPIIT (if any)  20. Details of PESO license (if any)  21. GST Number  22. Nature of business Manufacturing/ Sole Selling or Authorized Agent/ Assembler/ Traders/ Dealer/ Processor/ Repacker/ Others  23. Details of current products and services Products and services Supplied (please specify Govt/ Domestic market/ Export)  24. Record of past performance (e.g., Supply orders executed against of Ministry of Defence orders, Public Sectors and Paramilitary Forces, if any).  25. Details of registration with NSIC / SSI, DGS&D, other Defence Department, other Govt. Dept, membership of FICCI/ASSOCHAM/CII or other Industrial Association (Attach relevant copies of registration letters)  26. Have you already taken any technology from DRDO (If yes, give details attaching separate sheet)  Name of the Technology, Lab, Year, License number & Status  | 15. | Certificates of registration as a manufacturing unit, if any.   |  |
| 18. PAN Number  19. Details of Industrial license for defence manufacturing issued by DPIIT (if any)  20. Details of PESO license (if any)  21. GST Number  22. Nature of business Manufacturing/ Sole Selling or Authorized Agent/ Assembler/ Traders/ Dealer/ Processor/ Repacker/ Others  23. Details of current products and services Products and services Supplied (please specify Govt/ Domestic market/ Export)  24. Record of past performance (e.g., Supply orders executed against of Ministry of Defence orders, Public Sectors and Paramilitary Forces, if any).  25. Details of registration with NSIC / SSI, DGS&D, other Defence Department, other Govt. Dept, membership of FICCI/ASSOCHAM/CII or other Industrial Association (Attach relevant copies of registration letters)  26. Have you already taken any technology from DRDO (If yes, give details attaching separate sheet)  Name of the Technology, Lab, Year, License number & Status   | 16. | If Startup, DPIIT Registration No   |  |
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| Manufacturing/ Sole Selling or Authorized Agent/ Assembler/ Traders/ Dealer/ Processor/ Repacker/ Others  23. Details of current products and services Products and services Supplied (please specify Govt/ Domestic market/ Export)  24. Record of past performance (e.g., Supply orders executed against of Ministry of Defence orders, Public Sectors and Paramilitary Forces, if any).  25. Details of registration with NSIC / SSI, DGS&D, other Defence Department, other Govt. Dept, membership of FICCI/ASSOCHAM/CII or other Industrial Association (Attach relevant copies of registration letters)  26. Have you already taken any technology from DRDO (If yes, give details attaching separate sheet)  Name of the Technology, Lab, Year, License number & Status  | 21. | GST Number  |  |
| Products and services Supplied (please specify Govt/ Domestic market/ Export)  24. Record of past performance (e.g., Supply orders executed against of Ministry of Defence orders, Public Sectors and Paramilitary Forces, if any).  25. Details of registration with NSIC / SSI, DGS&D, other Defence Department, other Govt. Dept, membership of FICCI/ASSOCHAM/CII or other Industrial Association (Attach relevant copies of registration letters)  26. Have you already taken any technology from DRDO (If yes, give details attaching separate sheet)  Name of the Technology, Lab, Year, License number & Status   | 22. | Manufacturing/ Sole Selling or Authorized Agent/<br>Assembler/ Traders/ Dealer/ Processor/                                      |  |
| (e.g., Supply orders executed against of Ministry of Defence orders, Public Sectors and Paramilitary Forces, if any).  25. Details of registration with NSIC / SSI, DGS&D, other Defence Department, other Govt. Dept, membership of FICCI/ASSOCHAM/CII or other Industrial Association (Attach relevant copies of registration letters)  26. Have you already taken any technology from DRDO (If yes, give details attaching separate sheet)  Name of the Technology, Lab, Year, License number & Status   | 23. | Products and services Supplied (please specify  |  |
| NSIC / SSI, DGS&D, other Defence Department, other Govt. Dept, membership of FICCI/ASSOCHAM/CII or other Industrial Association (Attach relevant copies of registration letters)  26. Have you already taken any technology from DRDO (If yes, give details attaching separate sheet)  Name of the Technology, Lab, Year, License number & Status   | 24. | (e.g., Supply orders executed against of Ministry of Defence orders, Public Sectors and   |  |
| DRDO (If yes, give details attaching separate sheet)  Name of the Technology, Lab, Year, License number & Status  | 25. | NSIC / SSI, DGS&D, other Defence Department, other Govt. Dept, membership of FICCI/ASSOCHAM/CII or other Industrial Association |  |
| number & Status   | 26. | <b>DRDO</b> (If yes, give details attaching separate sheet)   |  |
| \(\alpha\tau.\)   15U/ 15I certification or any other certification   | 07  | number & Status   |  |
| (If yes, give details)  |     | (If yes, give details)  |  |
| 28. Relevant clearances form the authorities/ ministries (if any)   | 28. |   |  |
| 29. Capacity and capability to undertake developmental work and to accept attendant financial and commercial risks.   | 29. | developmental work and to accept attendant  |  |

| 30. | Capacity/capability to market the product through the marketing network, sales and service network, reliability to maintain confidentiality. |  |
|-----|--|--|
|-----|--|--|

### PART-2

#### Infrastructure and other Information

| 1. | Total area of factory                                  |  |
|----|--|--|
|    | Covered (m <sup>2</sup> ),                             |  |
|    | Uncovered (m <sup>2</sup> ),                           |  |
|    | Bonded space available (m <sup>2</sup> )               |  |
| 2. | Ownership of factory                                   |  |
|    | Self-owned, partnership, rental                        |  |
| 3. | Electric power   |  |
|    | Sanctioned   |  |
|    | Installed  |  |
|    | Standby (if any)                                       |  |
| 4. | Availability of adequate infrastructure                |  |
|    | (List of machines and their production capacities) and |  |
|    | technical expertise                                    |  |
| 5. | Name of bank & A/c No Name of bank                     |  |
|    | A/c type   |  |
|    | A/c no   |  |
|    | Address of the bank                                    |  |
|    | Phone:   |  |
|    | Email:   |  |

### 6. Details of current products:

| S.No | Type | Description | Licensed/installed capacity | Annual production for preceding 3 years |
|------|------|-------------|-----------------------------|---|
|      |      |             |                             |   |
|      |      |             |                             |   |

# 7. Details of foreign collaboration, if any

| S.No | Product | Name and address of collaborator | Year | Remarks |
|------|---------|----------------------------------|------|---------|
|      |         |                                  |      |         |
|      |         |                                  |      |         |

## 8. Details of products developed for services

| S.No | Nomenclature of stores | Order No. and date | Remarks |
|------|------------------------|--------------------|---------|
|      |                        |                    |         |
|      |                        |                    |         |

# 9. Please give details of important facilities & infrastructure as per following format for:

- (a) Production
- (b) Unconventional, special m/c
- (c) Testing & quality control facilities

| S.No | Description of m/c | Make & model | Qty | Date of purchase | Remarks |
|------|--------------------|--------------|-----|------------------|---------|
|      |                    |              |     |                  |         |
|      |                    |              |     |                  |         |

# 10. Furnish the following details with relevant certificates and documents

(a) R&D facilities available

- (b) Inspection quality control of raw material components
- (c) Assistance from central agency for testing / calibration etc.:
- (d) laboratory and drawing office facility

### 11. Principal customers:

| S. No | Name & address | S.O No and date | Date of last supply | Products supplied | Value |
|-------|----------------|-----------------|---------------------|-------------------|-------|
|       |                |                 |                     |                   |       |
|       |                |                 |                     |                   |       |

# 12. Future plans (if any) in respect of expansion programme/ installation of additional machines/ test facilities etc.

## 13. Name of the technology requested for transfer

(give self-assessment of your capability to absorb the technology)

### 14. Details of employee as on date on firm's pay roll

| PERMANENT      |                        |        |               |               |
|----------------|------------------------|--------|---------------|---------------|
| Category       | Post Held              | Number | Qualification | Total Service |
| Technical      | Prod. Manager          |        |               |               |
|                | Q.C. Manager           |        |               |               |
|                | Supervisor             |        |               |               |
|                | Testing Staff (QC)     |        |               |               |
|                | Skilled workers        |        |               |               |
|                | Unskilled workers, etc |        |               |               |
| Administrative | Purchase Manager       |        |               |               |
|                | Accounts Officer       |        |               |               |
|                | Office Superintendent  |        |               |               |
|                | Clerical               |        |               |               |
|                | Others, etc            |        |               |               |

| TEMPORARY      |   |        |               |               |
|----------------|---|--------|---------------|---------------|
| Category       | Post Held   | Number | Qualification | Total Service |
| Technical      | Prod. Manager Q.C. Manager Supervisor Testing Staff (QC) Skilled workers Unskilled workers, etc |        |               |               |
| Administrative | Purchase Manager<br>Accounts Officer<br>Office Superintendent<br>Clerical<br>Others, etc        |        |               |               |

# **DECLARATION**:

I / we confirm that the information furnished in Part 1 & 2 above is correct. In the event of any information given by me / us is found incorrect / false at any time, I / we understand our EoI for ToT will be cancelled/ rejected without notice, beside any other appropriate action against me / us.

| Industry seal   | Authorized signatory Name(s) in capital Designation and seal of authorized signatory |
|-----------------|--|
| Date:<br>Place: |  |

#### List of Support documents to be attached with Eol

- (a) Memorandum and Articles of Association (Should be incorporated as per Indian Companies Act, as amended time to time)
- (b) Certificates of registration as a manufacturing unit, if any.
- (c) Audited Balance Sheet for the preceding three years.
- (d) Income Tax returns for the preceding three year period
- (e) Details of shareholding/ownership pattern especially foreign partners/ shareholders, foreign employees, directors, etc. The company must adhere to the prevailing Govt of India policies and regulations on Foreign Direct Investment (FDI)/DIPP norms as applicable.
- (f) Annual budget for R&D during last three years.
- (g) Numbers and details of IPR or patents, etc., held by the company.
- (h) Number of technically or professionally qualified personnel.
- (i) Record of past performance (e.g., Supply orders executed against of Ministry of Defence orders, Public Sectors and Paramilitary Forces, if any).
- (j) Availability of adequate infrastructure (List of machines and their production capacities) and technical expertise.
- (k) List of Testing and Support equipment's
- (I) ISO/ ISI certification or any other certification
- (m) Relevant clearances form the authorities/ ministries (if any)
- (n) Capacity and capability to undertake developmental work and to accept attendant financial and commercial risks.
- (o) Capacity/capability to market the product through the marketing network, sales and service network, reliability to maintain confidentiality.
- (p) PESO and DPIIT license for explosive handling if ToT is for high energy Material, explosives, propellants, and component/ system dealing with it etc.
- (q) Under taking form company seeking ToT that none of its Directors, Independent Directors, non-executive Directors, Key management personnel are involved in any corrupt practices, unfair means and illegal activities.
- (r) Details of the industrials license for defence manufacturing be provided by the industry seeking ToTs.
- (s) Application cum Industry Assessment Form