

## **Propellant processing for P-193 Motor**

HEMRL has designed and successfully developed composite propellant processing technology and its casting for P-193 rocket motor. The developed composite propellant has performed successfully as per requirement in static and flight trials. A number of tests have been carried out to evaluate its performance and reliability w.r.t ballistic, physical, mechanical and interface properties at different temperatures from -20° C to +50° C.

Currently, there is a significant requirement of P-193 rocket motors. Since the requirement of these rocket motors is more than the in-house production capacity, it is decided to source these rocket motors from a suitable production agency established through ToT route for the supply as per the requirements.

The composite propellant processing technology developed by HEMRL is fully matured and now ready for productionisation in private sector manufacturing agencies.

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

**To,  
The Director,  
High Energy Materials Research Laboratory (HEMRL)  
Sutarwadi, Pune-411 021  
Email- director.hemrl@gov.in**

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  
Email-diitm.hqr@gov.in**

### **List of Support documents to be attached with EoI:-**

- (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 equipments.
- (l) ISO/ ISI certification or any other certification.
- (m) Relevant clearances from 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 from 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 industries license for Defence manufacturing be provided by the industry seeking ToTs.