

ANNEXURE-E
GOVERNMENT OF INDIA
ORDNANCE FACTORY BADMAL, BALANGIR, ODISHA
NOTICE INVITING EXPRESSION OF INTEREST(Stage-1)

NIEOI No.3350/OFBL/EOI/S-243 & BT-4/EO(P&M)

Date:09.09.2025

The Chief General Manager, Ordnance Factory Badmal, Balangir, Odisha invites Expression of Interest (EOI) from reputed Indian Firms for providing the following Machine / Plant at Ordnance Factory Badmal, Balangir, Odisha.

Sl.No	Reference No.	Name of Plant/Machine	Capacity
1.	No: 7002/P & M/EOI/U-06/S-243/2025-26. (Annexure A)	Automatic Plant for Production of S-243 Composition	16 Kg
2.	No: 7002/P & M/EOI/U-06/BT-4/2025-26. (Annexure B)	Automatic Plant for Production of BT-4 Composition	3 Kg
3.	No: 7002/P & M/EOI/U-06/Varnish/2025-26 (Annexure C)	Automatic Varnishing Machine for Cartridge 30mm (HE/I and AP/T) Ammunition	150 Rounds/hour

Contract shall be awarded through Two Stage Process:

- Stage 1: Expression Interest (EOI) Stage
- Stage 2: Tender Enquiry (TE) Stage

Tender documents will be issued in Stage-2 for each Plant separately to the shortlisted companies who participate and qualify in the EOI (Stage-1). Separate contracts will be signed with successful bidders for each plant.

Interested parties are requested to submit their EOI in the prescribed format (**Annexure D**) along with all supporting documents/credentials.

For detailed information, please see Annexure-A, B, C & D which are displayed in CPPP web site , GeM portal and Munitions India Ltd.(MIL) web site (<http://munitionsindia.in>) or **send email to "coofbol@ord.gov.in"** of Contact Person mentioned below for obtaining Annexures at least 15 days before the last date of submission of EOI.

Last date of submission of EOI is up to 20days from the date of publishing of short advertisement EOI.

Sd/-
Sr. Manager
For Chief General Manager

Address for communication:	Contact person (for any queries):
Chief General Manager, Ordnance Factory Badmal Balangir, Odisha	Name: Shri Dibyajyoti Sethi Designation: Sr. Manager Telephone No: 06655-25-2026 ,2088,2031 E-mail ID: coofbol@ord.gov.in

ANNEXURE-A

No: 7002/P & M/EOI/U-06/S-243/2025-26

Annexure to Notice inviting expression of interest (NIEOI) No.3350/OFBL/EOI/S-243 & BT-4/EO(P&M),
date:09.09.2025

Introduction:

Ordnance Factory, Badmal (OFBL) is under Munitions of India Limited (MIL), Pune which is part of Deptt. of Defence Production Public Enterprise, Ministry of Defence, Govt. of India. 30mm Armour Piercing Tracer (AP/T) Ammunition is manufactured at OFBL. Tracer present in 30mm AP/T shell is a pyrotechnic composition which is designed to produce light so that the trajectory of the AP/T shell can be traced during firing. The Tracer composition named S-243 is manufactured in house at OFBL. Currently, the complete manufacturing process of Tracer Composition S-243 is manual. The complete process needs to be automated to the extent possible to increase safety, quality and productivity.

Scope of Work in Brief:

1. The scope of work of the plant will include design, fabrication, supply, erection and commission of the plant. The scope will also include civil works for erection, piping and interconnection of different equipment's and services to be provided as part of the plant. The contractor shall have to arrange training for Purchaser's personnel for mutually agreed time period during / before commissioning of the plant at O.F. Badmal.

Detailed specifications with description of plant manufacturing process and lists of equipment's required for each plant will be furnished in the tender documents which will be issued in Stage-2. However Brief description of process is given below.

The composition is prepared in the batch size of 2 kg. Thus, total 8 batches will be prepared to meet the daily production Target. The brief description of existing production process is given below.

- A. On Day 1, ROSIN Solution manufacturing is being done. For this purpose, grinded Rosin Powder is weighed manually in a digital weighing machine and then mixed with rectified spirit and kept for 24 hrs under normal room temperature so that a liquid solution is prepared.
- B. On Day 2, Magnesium Powder is weighed manually in a digital weighing machine and then is mixed with ROSIN solution prepared on previous day manually by hand in an aluminium tray and kept for 1 hour under room temp. After that the mix is sieved in 25BSS sieve manually. The complete mixture must pass the sieve. The passed mixture is kept for 24 hrs in Aluminium Tray. Also, Resin solution is prepared separately on same day using Phenolic Resin, Rectified Spirit and Acetone kept in glass jar for 24 Hrs. under normal room temperature.
- C. On Day 3, other raw materials (mentioned in the table below) are weighed manually in a digital weighing machine and then dried in the electric oven for 2 hrs at 80 °C and sieved separately one by one before further processing.

SL NO	Raw - Materials	SIEVING
01	STRONTIUM NITRATE	60 BSS-PASS/170 BSS RETAIN
02	SODIUM ALUMINIUM FLUORIDE (CRYOLITE)	120BSS -PASS
03	GRAPHITE POWDER SULPHUR FREE	120BSS -PASS

The raw materials mentioned above are mixed manually in an aluminium tray and sieved in 25BSS sieve manually. Coated Magnesium Powder is then added to the above mixture and mixed manually in aluminium tray and again the mixture is sieved in 25BSS Sieve manually. Resin solution prepared on Day 2 is then mixed with the above mixture manually and the wet mixture is kept for 24 hour drying at Room Temperature.

- D. On Day 4, the final mixture is sieved by 18 BSS sieve manually. The final mixture is called S-243 Composition and is ready to use.

General Requirements:

- A. The interested firm must visit Ordnance Factory Badmal, Balangir, Odisha for better understanding of the composition manufacturing process.
- B. The interested firm must come up with a proposal against the said problem statement and present the same at Ordnance Factory Badmal in 1 month after plant visit. The feasibility of the proposal will be checked by the Multifunctional team nominated by competent authority at Ordnance Factory Badmal.
- C. The interested firm has to design the plant in current Production building only. Minor Modifications in the Building is allowed without affecting the structural stability of the building.
- D. All the electrical, electronics and control equipments and accessories to be kept inside the danger building must be flameproof duly certified by CIMFR, Dhanbad/ equivalent intl. agency like ATEX.
- E. All the material handling and storage equipments like Trays, sieves, machines and Boxes must be made from non-sparking and conducting material like Aluminium, Brass etc.
- F. The automatic plant is going to handle metallic powder; thus suitable Automatic Fire Extinguishing system must be present in the proposed plant.
- G. The production building is Air Conditioned and Compressed Air supply is available in the Building.
- H. The plant must be Industry 4.0 Compliant.
- I. Safety is the topmost priority in the said project. Thus, no deviation w.r.t safety is allowed while designing the plant.

Desired Capacity of the plant:

The plant should have capacity to achieve minimum output rate of **16 kg S 243 composition / day considering single 8 hour shift with 100% conformance in physical Quality and Safety.**

Bidder's Profile & Qualification Criteria for Stage-1:

1. The interested parties (Bidders) must have the following qualification criteria for selection for Stage-2 (issue of tender documents):

a. Financial Criteria:

Bidder must have average annual turnover of minimum Rupees One Crore in last three years.

b. Technical Criteria:

Bidder should have past experience of design, supply, erection and commissioning of the required plant or similar plants for chemicals/explosives either in India or in any other country or, Bidder should have collaboration agreement for design, supply, erection and commissioning and after sales service with any other Indian or foreign company who meets the above criteria.

2. The applications (EOI) of firms should be accompanied by following documentary evidence in support of meeting the above criteria / profile:

- i. Photo-copies of audited balance sheet and profit & loss statements for last three years.
- ii. Photo-copies of VAT/CST Registration Certificate, Provident Fund Registration Certificate, income Tax PAN Card and Central Excise & Service Tax Registration Certificates.
- iii. Photo-copies of orders/contracts (showing values of projects & work-share of Bidder) and performance certificates of previous supplies/ projects executed. [In case of projects executed by a foreign firm/partner in a foreign country, if value / other information cannot be given for confidentiality, the Bidder shall submit maximum possible relevant information to satisfy its credentials.]

3. The interested firms should also furnish:

- a) Undertaking to provide pre-delivery inspection with own means or third party mutually agreed with purchaser, in case contract is awarded for any plant.
- b) Undertaking to be responsible for all contractual obligations including guarantee / warranty obligations in case contract is awarded for any plant.
- c) Affidavit that the firm has never been banned by Govt. of India.
- d) General power of attorney in favour of signatory other than owner/head of the firm.

Criteria for Evaluation & Selection Process:

- The interested firms shall be called to O.F. Badmal, Balangir, Odisha to visit the site and to give presentation about their work experience and competence. The interested firm must come up with a proposal against the said problem statement and present the same at Ordnance Factory Badmal in 01 month after plant visit. The feasibility of the proposal will be checked by the Multifunctional team nominated by competent authority at Ordnance Factory Badmal.
- Based on the credentials, fulfilment of qualification criteria and presentations, the firm shall be short-listed.
- Tender documents (Requests for Bids) shall be issued in Stage-2 to only the shortlisted firms.

ANNEXURE-B

No: 7002/P & M/EOI/U-06/BT-4/2025-26

Annexure to Notice inviting expression of interest (NIEOI) No.3350/OFBL/EOI/S-243 & BT-4/EO(P&M)
, date:09.09.2025

Introduction:

Ordnance Factory, Badmal (OFBL) is under Munitions of India Limited (MIL), Pune which is part of Deptt of Defence Production Public Enterprise, Ministry of Defence, Govt of India. 30mm Armour Piercing Tracer (AP/T) Ammunition is manufactured at OFBL. Tracer present in 30mm AP/T shell is a pyrotechnic composition which is designed to produce light so that the trajectory of the AP/T shell can be traced during firing. The Tracer composition named BT-4 is manufactured in house at OFBL. Currently, the complete manufacturing process of Tracer Composition BT-4 is manual. The complete process needs to be automated to the extent possible to increase safety, quality and productivity.

Scope of Work in Brief:

1. The scope of work of the plant will include design, fabrication, supply, erection and commission of the plant. The scope will also include civil works for erection, piping and interconnection of different equipment's and services to be provided as part of the plant. The contractor shall have to arrange training for Purchaser's personnel for mutually agreed time period during / before commissioning of the plant at O.F. Badmal.
2. Detailed specifications with description of plant manufacturing process and lists of equipment's required for each plant will be furnished in the tender documents which will be issued in Stage-2. However Brief description of process is given below.

The composition is prepared in the batch size of 250gm. Thus, total 10 batches will be prepared to meet the daily production Target. The brief description of existing production process is given below.

- A. On Day 1, Resin Solution manufacturing is being done. For this purpose, Phenolic Resin weighed manually and then mixed with rectified spirit and kept for 24 hrs under normal room temperature so that a liquid solution is prepared.
- B. On Day 2, raw materials (mentioned in the table below) are weighed manually in a digital weighing balance and dried in the electric oven for 2 hrs at 70 °C

Sl. No.	Raw Materials
1.	BARIUM NITRATE PURIFIED GRADE
2.	BARIUM PEROXIDE GR.I

After this Magnesium Powder is weighed manually in a digital weighing balance and mixed with the raw materials mentioned above manually in an aluminium tray and sieved in 25BSS sieve manually. Resin solution prepared on Day 1 is then mixed with the above mixture manually and the wet mixture is kept for 24 hour drying at Room Temperature.

- C. On Day 3, the final mixture is sieved by 25 BSS sieve manually. The final mixture is called BT-4 Composition and is ready to use.

General Requirements:

- A. The interested firm must visit Ordnance Factory Badmal, Balangir, Odisha for better understanding of the composition manufacturing process.
- B. The interested firm must come up with a proposal against the said problem statement and present the same at Ordnance Factory Badmal in 01 month after plant visit. The feasibility of the proposal will be checked by the Multifunctional team nominated by competent authority at Ordnance Factory Badmal.
- C. The interested firm has to design the plant in current Production building only. Minor Modifications in the Building is allowed without affecting the structural stability of the building.
- D. All the electrical, electronics and control equipments and accessories to be kept inside the danger building must be flameproof duly certified by CIMFR, Dhanbad/ equivalent intl. agency like ATEX.
- E. All the material handling and storage equipments like Trays, sieves, machines and Boxes must be made from non-sparking and conducting material like Aluminium, Brass etc.
- F. The automatic plant is going to handle metallic powder; thus suitable Automatic Fire Extinguishing system must be present in the proposed plant.
- G. The production building is Air Conditioned and Compressed Air supply is available in the Building.
- H. The plant must be Industry 4.0 Compliant.
- I. Safety is the topmost priority in the said project. Thus, no deviation w.r.t safety is allowed while designing the plant.

Desired Capacity of the plant:

The plant should have capacity to achieve minimum output rate of **3 kg BT-4 composition / day considering single 8 hour shift with 100% conformance in physical Quality and Safety.**

Bidder's Profile & Qualification Criteria for Stage-1:

- 1. The interested parties (Bidders) must have the following qualification criteria for selection for Stage-2 (issue of tender documents):
 - a. Financial Criteria:**
Bidder must have average annual turnover of minimum Rupees One Crore in last three years.
 - b. Technical Criteria:**
Bidder should have past experience of design, supply, erection and commissioning of the required plant or similar plants for chemicals/explosives either in India or in any other country or, Bidder should have collaboration agreement for design, supply, erection and commissioning and after sales service with any other Indian or foreign company who meets the above criteria.
- 2. The applications (EOI) of firms should be accompanied by following documentary evidence in support of meeting the above criteria / profile:
 - i. Photo-copies of audited balance sheet and profit & loss statements for last three years.
 - ii. Photo-copies of VAT/CST Registration Certificate, Provident Fund Registration Certificate, income Tax PAN Card and Central Excise & Service Tax Registration Certificates.

- iii. Photo-copies of orders/contracts (showing values of projects & work-share of Bidder) and performance certificates of previous supplies/ projects executed. [In case of projects executed by a foreign firm/partner in a foreign country, if value / other information cannot be given for confidentiality, the Bidder shall submit maximum possible relevant information to satisfy its credentials.]
3. The interested firms should also furnish:
- a) Undertaking to provide pre-delivery inspection with own means or third party mutually agreed with purchaser, in case contract is awarded for any plant.
 - b) Undertaking to be responsible for all contractual obligations including guarantee / warranty obligations in case contract is awarded for any plant.
 - c) Affidavit that the firm has never been banned by Govt. of India.
 - d) General power of attorney in favour of signatory other than owner/head of the firm.

Criteria for Evaluation & Selection Process:

- The interested firms shall be called to O.F. Badmal, Balangir, Odisha to visit the site and to give presentation about their work experience and competence. The interested firm must come up with a proposal against the said problem statement and present the same at Ordnance Factory Badmal in 1 month after plant visit. The feasibility of the proposal will be checked by the Multifunctional team nominated by competent authority at Ordnance Factory Badmal.
- Based on the credentials, fulfilment of qualification criteria and presentations, the firms shall be short-listed.
- Tender documents (Requests for Bids) shall be issued in Stage-2 to only the shortlisted firms.

ANNEXURE-C

No: 7002/P & M/EOI/U-06/Varnish/2025-26

Annexure to Notice inviting expression of interest (NIEOI) No.3350/OFBL/EOI/S-243 & BT-4/EO(P&M), date:09.09.2025

Introduction:

Ordnance Factory, Badmal (OFBL) is under Munitions India Limited (MIL), Pune which is part of Deptt of Defence Production Public Enterprise, Ministry of Defence, Govt of India. Cartridge 30mm HE/I and AP/T Ammunition is manufactured at OFBL. After assembly of the 30mm Rounds varnish is applied in the shell body. Currently, the varnish application process is manual. The complete process needs to be automated to the extent possible to increase productivity, quality and safety.

Scope of Work in Brief:

1. The scope of work of the plant will include design, fabrication, supply, erection and commission of the plant. The scope will also include civil works for erection, piping and interconnection of different equipment's and services to be provided as part of the plant. The contractor shall have to arrange training for Purchaser's personnel for mutually agreed time period during / before commissioning of the plant at O.F. Badmal.
2. Detailed specifications with description of plant manufacturing process and lists of equipment's required for each plant will be furnished in the tender documents which will be issued in Stage-2. However Brief description of process is given below.
 - A. For cartridge 30mm HE/I Ammunition, after assembly of 30mm HE/I filled shell with Cartridge Case, Varnish, APC 224 (20% Shellac), is applied manually with the help of paint brush in the shell body above Copper Driving Band.
 - B. For cartridge 30mm AP/T Ammunition, Varnish, APC 224 (20% Shellac), is applied manually after assembly operation with the help of paint brush in the Ballistic Capped shell body above Copper Driving Band of shell.
 - C. The varnish application is done on one Round at a given time and after uniform application of the varnish, the round is kept for drying at Room Temperature in vertical position on designated Trays.
 - D. The thickness of varnish must be uniform all over the shell body and there should not be any spillage in the Copper Driving Band.
 - E. The thickness of the varnish should be such that the complete Round must pass the Chamber Gauge.

General Requirements:

- A. The interested firm must visit Ordnance Factory Badmal, Balangir, Odisha to study and for better understanding of the Varnish Application process.
- B. The interested firm must come up with a proposal against the said problem statement and present the same at Ordnance Factory Badmal in 1 month after plant visit. The feasibility of the proposal will be checked by the Multifunctional team nominated by competent authority at Ordnance Factory Badmal.

- C. The interested firm has to design the plant in current Production building only. Minor Modifications in the Building is allowed without affecting the structural stability of the building.
- D. All the electrical, electronics and control equipments and accessories to be kept inside the danger building must be flameproof duly certified by CIMFR, Dhanbad/ equivalent intl. agency like ATEX.
- E. The production building is Air Conditioned and Compressed Air supply is available in the Building.
- F. The plant must be Industry 4.0 Compliant.
- G. Safety is the topmost priority in the said project. Thus, no deviation w.r.t safety is allowed while designing the plant.

Desired Capacity of the plant:

The plant should have capacity to achieve minimum output rate of **150 Round Varnishing/Hour with 100% conformance in Quality and Safety**. The firm may design the machine in such a way that multiple rounds can be varnished in a single cycle.

Bidder's Profile & Qualification Criteria for Stage-1:

1. The interested parties (Bidders) must have the following qualification criteria for selection for Stage-2 (issue of tender documents):

a. Financial Criteria:

Bidder must have average annual turnover of minimum Rupees One Crore in last three years.

b. Technical Criteria:

Bidder should have past experience of design, supply, erection and commissioning of the required plant or similar plants for chemicals/explosives either in India or in any other country or, Bidder should have collaboration agreement for design, supply, erection and commissioning and after sales service with any other Indian or foreign company who meets the above criteria.

2. The applications (EOI) of firms should be accompanied by following documentary evidence in support of meeting the above criteria / profile:
 - i. Photo-copies of audited balance sheet and profit & loss statements for last three years.
 - ii. Photo-copies of VAT/CST Registration Certificate, Provident Fund Registration Certificate, income Tax PAN Card and Central Excise & Service Tax Registration Certificates.
 - iii. Photo-copies of orders/contracts (showing values of projects & work-share of Bidder) and performance certificates of previous supplies/ projects executed. [In case of projects executed by a foreign firm/partner in a foreign country, if value / other information cannot be given for confidentiality, the Bidder shall submit maximum possible relevant information to satisfy its credentials.
3. The interested firms should also furnish:
 - a) Undertaking to provide pre-delivery inspection with own means or third party mutually agreed with purchaser, in case contract is awarded for any plant.
 - b) Undertaking to be responsible for all contractual obligations including guarantee / warranty obligations in case contract is awarded for any plant.
 - c) Affidavit that the firm has never been banned by Govt. of India.

- d) General power of attorney in favour of signatory other than owner/head of the firm.

Criteria for Evaluation & Selection Process:

- The interested firms shall be called to O.F. Badmal, Balangir, Odisha to visit the site and to give presentation about their work experience and competence. The interested firm must come up with a proposal against the said problem statement and present the same at Ordnance Factory Badmal in 01 month after plant visit. The feasibility of the proposal will be checked by the Multifunctional team nominated by competent authority at Ordnance Factory Badmal.
- Based on the credentials, fulfilment of qualification criteria and presentations, the firm shall be short-listed.
- Tender documents (Requests for Bids) shall be issued in Stage-2 to only the shortlisted firms.

ANNEXURE D

Format of Application

Interested parties should submit EOI application to O F Badmal, Balangir, Odisha in the following format, enclosing supporting documents, required affidavits/undertakings and copies of company presentation. The envelope containing the EOI should be marked with the NIEOI No. and Date for identification and sorting. It may be sent by mail- “ eoofbol@ord.gov.in” / post/courier/hand delivery. Any application received after the last date & time for submission will not be considered.

Note: Separate sheets may be used wherever necessary.

1. Name & Address of the Bidder:
2. Name & Designation of the person to whom all references shall be made:
3. Fax Nos:
4. Telephone & Mobile Nos:
5. E-mail ID:
6. Chief of the Organization: E-mail ID:Telephone / Mobile No:
7. Type of Organization (Public Sector/Limited/Private Limited/Partnership/Proprietary/Society/Any other):
8. No. of offices & factories/workshops (details in separate sheets):
9. No. of qualified Technical & Supervisory Personnel etc in following format:

Sl	Class of Manpower	No. of Personnel Available with contractor	No. of Personnel to be employed

10. Particulars of past experience of similar works executed:
11. Concurrent Commitments (Details of works under execution, %age completion, expected date of completion):
12. Copy of collaboration agreement between parties (if the Bidder has partnered with any other firm to submit bid jointly):
13. Annual Turnover Statement for last 3 years (certified by a statutory auditor):

Financial Year	Annual Turnover (Rs)	Net Worth (Rs)
Year-1		
Year-2		
Year-3		

Net worth shall be worked out on the following basis:

Net worth = Capital + Reserves – Accumulated loss

14. Plant or plants for which interested to bid for:
15. Any other information that the bidder may like to give in order to highlight his bid:
16. List of documents attached:

Place :

Date :

Signature:

Name in Full:

Designation / Status: