

भारत सरकार/GOVERNMENT OF INDIA  
अंतरिक्ष विभाग, इसरो/DEPARTMENT OF SPACE, ISRO  
विक्रम साराभाई अंतरिक्ष केंद्र/VIKRAM SARABHAI SPACE CENTRE  
क्रय यूनिट/PURCHASE UNIT-III  
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प्रस्ताव हेतु अनुरोध/REQUEST FOR PROPOSAL

संद. सं.वीएसएससी/एसपीआरई/एपीईपी/आरएफपी-एसी/2023

Ref.No. VSSC/SPRE/APEP/RFP-AC/2023

तिथि/Date: 21/11/2023

शुद्ध ग्रेड टाइप-1 के लिए आइएस: 1113-1965 के अनुसार अमोनियम क्लोराइड की आपूर्ति के लिए प्रस्ताव हेतु अनुरोध

REQUEST FOR PROPOSAL[RFP] FOR SUPPLY OF AMMONIUM CHLORIDE AS PER IS: 1113-1965 FOR PURE GRADE TYPE-1

वीएसएससी, शुद्ध ग्रेड टाइप-1 के लिए आइएस: 1113-1965 के अनुसार अमोनियम क्लोराइड की आपूर्ति के लिए प्रत्याशित बोलीकारों से प्रस्ताव हेतु अनुरोध आमंत्रित करता है।

VSSC invites Request for Proposal[RFP] from prospective bidders for Supply of Ammonium chloride as per IS: 1113-1965 for pure grade Type-1

इच्छुक पार्टी अपने प्रस्ताव हेतु अनुरोध को मोहरबंद लिफाफे में संदर्भ सं. वीएसएससी/एसपीआरई/आरएफपी-एसी/2023 का उद्धरण करते हुए **11/01/2024 (16:00 बजे)** को या उससे पहले निम्नलिखित पते पर भेज सकते हैं।

Interested parties can furnish their Request for Proposal in Sealed Envelope quoting our Reference no. VSSC/SPRE/APEP/RFP-AC/2023 on or before **11/01/2024 [16:00 Hrs.]** to the following address:

वरि. क्रय एवं भंडार अधिकारी / Sr. Purchase & Stores Officer,  
क्रय यूनिट III पीआरएसओ /Purchase Unit- III, PRSO  
आरएफएफ क्षेत्र, इसरो पीओ/ RFF Area, ISRO. PO,  
तिरुवनंतपुरम/Thiruvananthapuram- 695022.  
फोन/Ph: 0471-256 3775

हस्ताक्षरित/Sd/-

वरि.प्रधान, क्रय एवं भंडार/ Sr.Head, Purchase & Stores



Government of India  
Department of Space  
Vikram Sarabhai Space Centre  
Indian Space Research Organization  
Thiruvananthapuram-695022, Kerala

No. No. VSSC/SPRE/APEP/RFP-AC/2023

Date: 21/11/2023

**REQUEST FOR PROPOSAL[RFP] FOR SUPPLY OF AMMONIUM CHLORIDE AS PER IS: 1113-1965 FOR PURE GRADE TYPE-1**

Vikram Sarabhai Space Centre (VSSC) hereafter referred to as "VSSC" is inviting Manufacturers for the submission of a **Request For Proposal[RFP]**.

The objective of this RFP is to shortlist **Manufacturers for developing and qualifying as new manufacturers for supplying Ammonium Chloride as per IS: 1113-1965 for pure grade Type-1 at an average rate of 700-1400MT/year for APEP/ISRO or part supply as required by the department on a regular basis.**

RFP document can be downloaded from websites [www.isro.gov.in](http://www.isro.gov.in) & [www.vssc.gov.in](http://www.vssc.gov.in) and the same shall be submitted within the due date and time." **Request For Proposal** " with all essential information shall reach the Senior Purchase and Stores Officer, Purchase Unit III, Vikram Sarabhai Space Centre, ISRO Post, Thiruvananthapuram 695022, Kerala, on or before **11/01/2024 16:00 Hours** through speed post/ordinary post. This RFP is issued as a "Pre-Bid Qualification". Inadequate or incomplete information shall result in rejection of the offer. VSSC reserves the right to accept or reject all or any of the RFP. Mere compliance to the RFP terms does not guarantee further consideration for qualification. Also, VSSC reserves the right to hold pre-bid meeting/seek clarifications with all the parties or with some of the parties, on need basis.

Addendum, if any, to this RFP shall be hosted in our websites [www.isro.gov.in](http://www.isro.gov.in) & [www.vssc.gov.in](http://www.vssc.gov.in) only.

## **REQUEST FOR PROPOSAL[RFP]**

### **REQUEST FOR PROPOSAL[RFP] FOR SUPPLY OF AMMONIUM CHLORIDE AS PER IS: 1113-1965 FOR PURE GRADE TYPE-1**

#### **1. INTRODUCTION**

Ammonium Perchlorate Experimental Plant (APEP) of VSSC, ISRO is located at Aluva, Kerala. APEP is entrusted with manufacture and supply of Ammonium Perchlorate (AP) for ISRO programmes. Ammonium Chloride ( $\text{NH}_4\text{Cl}$ ) is one of the major and critical raw materials used in the processing steps for the manufacture of AP.

The purity and quality of Ammonium Chloride has a high impact on the properties of AP manufactured. APEP requires Ammonium Chloride of pure grade type 1 as per IS 1113-1965 without any anti-caking agents. Fertilizer grade Ammonium Chloride is not acceptable. The approximate annual requirement of Ammonium Chloride at APEP will be around 1000-1700 MT at the present rate of AP production and future requirement. This annual intake may reduce/increase depending upon requirement and shall be supplied in staggered lots.

#### **2. OBJECTIVE OF RFP**

This Request For Proposal (RFP) is aimed at developing and qualifying suitable new manufacturers for supplying Ammonium Chloride at an average rate of 700-1400MT/year for APEP/ISRO or part supply as required by the department on a regular basis. The actual quantity may vary depending on various programmatic requirements. ISRO may simultaneously procure Ammonium Chloride from other sources also, at the whole discretionary power of the Department. The supplier should be an established chemical manufacturer of repute, who has his own process plant for the production of Ammonium Chloride, with a production capacity of 3TPD or more and can be expanded to meet the demand of  $\text{NH}_4\text{Cl}$  as per requirements given by APEP.

#### **3. QUALIFICATION PROGRAMME**

Initially, the vendors will have to supply samples of 1kg for laboratory level evaluation and scrutiny. **The samples will be checked at APEP for compliance with the Ammonium Chloride as per IS : 1113-**

**1965 for pure grade type-1.** Upon successful qualification at lab level, **the parties will be shortlisted.** Larger lots of 1 MT to 7 MT from 2 to 3 different production batches have to be procured from selected vendors, in LT mode. During LT mode tendering to the short listed parties, the lowest offer will be accepted and Ammonium Chloride will be procured from the party / parties who are willing to supply at the same rate for qualification trials .The procured  $\text{NH}_4\text{Cl}$  will be taken for AP production at APEP and will be subsequently subjected to various qualification tests as recommended by ISRO level qualification programme.

ISRO has a very stringent qualification programme which consists of several stages, tests, etc at various locations. A total duration of 10-12 months is expected for total qualification programme from the date of supply of qualification lots.

Once the party / parties are qualified, the matter will be informed to the party/ parties. Bulk procurement will be effected only upon successful completion of qualifications and approval by the review committee.

#### **4. SPECIFICATIONS OF AMMONIUM CHLORIDE**

Ammonium Chloride as per IS : 1113- 1965 for pure grade type-1, conforming to the following specifications :

1. Ammonium Chloride (as  $\text{NH}_4\text{Cl}$ ) % by wt. on dry basis : 99.5% (min)
2. Moisture : 0.5% (max)
3. Iron (as Fe) : 0.01% (max)
4. Sulphates as  $((\text{NH}_4)_2\text{SO}_4)$  : 0.1%(max)
5. Total sulphated residue on sublimation : 0.30%(max)
6. pH (of 1 molar solution) : 4.5 to 5.2
7. Matter insoluble in water : 0.1% (max)

## **5. SUBMISSION OF REQUEST FOR PROPOSAL**

Interested parties shall submit the RFP within 30 days of this advertisement and the RFP shall contain the following details about the supplier:

1. The full address and contact details of the supplier with manufacturing plant address.
2. Confirm whether dealer / manufacturer.
3. Conformance to specifications of Ammonium Chloride to be supplied as per the specifications mentioned in sl no.4
4. Whether the manufacturer is Government/ Private / Govt undertaking / PSU.
5. Existing production capacity for Ammonium Chloride.
6. Present major customers of Ammonium Chloride with the quantity of supply/year.
7. Annual production of Ammonium Chloride for the last five years.
8. Annual turnover /balance sheet of the company during the last five years.
9. Brief process description of Ammonium Chloride manufacture.
10. Details of packing, storage and transportation.
11. Assets and infrastructure presently available at the manufacturing plant location.
12. Details of technical manpower/organization structure.
13. Exact location of the manufacturing facility and accessibility by air/rail/road.
14. Other major products of the company.
15. Justification for the technical competence for showing interest in this proposal.

The above details shall be typed on company letter head and to be submitted along with the RFP. The RFP shall also be accompanied with 1kg free sample of Ammonium Chloride manufactured by the company along with the test certificate from a government approved laboratory. These samples shall be tested by VSSC/ISRO lab as per qualification plan to confirm meeting the product specifications mentioned in sl no.4. Short listed suppliers will be considered and contacted for the next level of qualification programme. Party should not mention the price of ammonium chloride while submitting the RFP. Based on the results of

this qualification programme, vendors shall be short listed for the regular supply of Ammonium Chloride to APEP.

## **6. TERMS AND CONDITIONS**

### **6.1 Quality Control**

- a. The party shall have stringent control on the quality of raw material used for the manufacture of the product Ammonium Chloride pure grade type 1. The raw material test certificate shall be submitted to VSSC corresponding to each lot of Ammonium Chloride supply.
- b. The party shall have a well documented procedure for acceptance of raw material for the manufacture of Ammonium Chloride pure grade type 1. The copy of the same has to be submitted to VSSC along with submitting the proposal. Traceability of raw material used for manufacturing each lot of Ammonium Chloride shall be available.
- c. Only DM water shall be used in the processing steps for the manufacture of Ammonium chloride.
- d. The identified sources for raw material shall only be used for the manufacture of Ammonium Chloride pure grade type1 and the details of the sources shall be submitted to VSSC/ISRO along with submitting RFP.
- e. Party shall certify that the “raw materials” used for manufacturing 1 kg sample, qualification and the bulk supply lots (as per sl no. 3) shall be from the “identified source” to ensure consistency in purity. Any change in “identified source” of raw materials for the supply of Ammonium Chloride to VSSC/ISRO shall be with the clearance of VSSC/ISRO.
- f. Company's quality management programme and details of ISO certification if obtained shall also be given in the RFP.

## **6.2 Sample submission**

- a. Once the samples are submitted for evaluation, under no circumstances changing/replacing of samples shall be allowed.
- b. The authority to accept/reject samples based on acceptance criteria rests fully with VSSC/ISRO.
- c. Once a sample is rejected from a supplier, no further queries shall be entertained.
- d. No claim shall be entertained to collect back tested samples, test certificates, reports, etc. Entire evaluation programme shall be carried out by VSSC/ISRO. At no point of time, any kind of intervention in the qualification programme shall be entertained.
- e. Samples for qualification will have to be delivered at APEP/ISRO, Aluva by respective vendors.

## **6.3 General terms and conditions**

- a. This RFP is for short listing the probable suppliers for Ammonium Chloride to ISRO only and in no way an agreement for the procurement of  $\text{NH}_4\text{Cl}$  in future.
- b. The vendor shall identify and inform a suitable technical person from their manufacturing unit, who is thorough about the manufacturing process, (Engineer/Manager) as focal point for further interactions.
- c. Manufacturing plant shall be located within India.
- d. ISRO shall have the full authority to reject a vendor at any stage during or after the qualification programme. Qualification of the sample does not guarantee that the party will be shortlisted as a probable vendor.
- e. ISRO has the right to short close the RFP and process of awarding contract without giving any details to the RFP respondents.
- f. ISRO has the right to award contract to more than one vendor at a reduced quantity.
- g. You shall be willing to enter into a long term /short term agreement with ISRO for the supply of Ammonium Chloride in agreement with the above conditions.

## Annexure - 1

### **Checklist** for the supporting documents

***(Filled checklist to be submitted by the Vendor along with the Request For Proposal)***

Sl. No.	Document/Proof	Attached or Not-attached with RFP	Remarks
1.	Company registration details		
2.	Certified copies from Chartered Accountant for balance sheet/Annual turnover for the last 5 years (FY 2017-2018, 2018-19, 2019-20, 2020-21, 2021-2022)		
3.	Annual production of Ammonium Chloride for the last five years		
4.	Copy of previous purchase orders executed with ISRO/Govt sectors		
5.	Company profile, Details of technical manpower/organization structure		
6.	Details of existing production capacity for Ammonium Chloride		
7.	Copies of present purchase orders for Ammonium chloride with quantity of supply/year		