

**Government of India
Department of Atomic Energy
Nuclear Fuel Complex
Effluent Management Section**

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PUBLIC TENDER NOTICE

Expression of Interest Notice No. NFC/EM/EOI/2017

On behalf of the President of India, Sr. Manager (EM section), Nuclear Fuel Complex, Department of Atomic Energy, ECIL (Post), Hyderabad – 500 062, invites sealed proposals giving the “Expression of Interest” to buy the Effluents on a long term running contract basis subject to the terms and conditions as detailed in the document:

Last date for issue of documents	21.10.2017
Last date for receipt of filled in documents	26.10.2017 up to 16.00 hrs
Date and time of opening of documents	27.10.2017 at 14.00 hrs

Documents pertaining details of effluents and the terms and conditions can be downloaded from our website www.nfc.gov.in. The details may be obtained from the office of SM, EM section, Nuclear Fuel Complex, ECIL Post, Hyderabad – 500 062 between 11:00 hrs and 16:00 hrs on all working days (Contact Phone Nos. 040-27183268/3294, 040-27184955).

It may also be noted that, if the last date fixed for issue of documents and or the date fixed for receipt and opening happens to a non working day for NFC, the same will stand postponed to the next working day. Tenderers are advised to download the documents and submit the filled up Tenders, in person to avoid delays / loss in transit by courier / post. NFC will not be responsible for any loss in transit / delays by Post / courier for the receipt of request for documents / filled up Tenders.

For further details visit our web site at www.nfc.gov.in.

Yours faithfully,
(R.V.R.L.VisweswarRao)
SM, EM section
For and on behalf of the President of India

Government of India
Department of Atomic Energy
Nuclear Fuel Complex
Effluent Management section

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Expression of Interest Notice No. NFC/EM/EOI/2017

On behalf of the President of India, Sr. Manager (EM section), Nuclear Fuel Complex Department of Atomic Energy, Government of India, ECIL (PO), Hyderabad - 500 062, hereby invites proposals for “Expression of Interest” to buy the following **one or more** effluents on a long term running contract basis.

The effluents are generated during the production of Zirconium Oxide, Zirconium Sponge, Uranium Oxide, Zircalloy & SS tubes and nuclear reactor hardware at Nuclear Fuel Complex, Hyderabad. The effluents contain considerable quantity of valuable chemicals which can be recovered by Chemical/Metallurgical/Mechanical processes.

The effluents are directly disposed off in “as is where is” condition. The quantities, composition/concentrations given are only indicative and may vary. The firms shall have experience and expertise in handling and processing of the chemicals & also possess valid clearances from statutory authorities as given at point no.01.

The firms are requested to go through the list of effluents tabulated below and indicate the names of effluents that can be collected and processed by them along with the proposed methodology/ end use of each type of effluent.

For inspection of any of the materials, interested parties may contact the EM section (Ph.No:040-27183268/3294/4955, vishy@nfc.gov.in), Nuclear Fuel Complex, Hyderabad.

Details of various effluents generated at NFC.

S.No	Name of the Effluent	Chemical Composition	Quantity / Month
1.	Sodium Nitrate Solution	NaNO ₃ : 100-200 gpl ZrO ₂ : 10-20 gpl, Insolubles : 30% v/v . pH : 7 - 8.5	500 KL
2.	Ammonium Nitrate/ Ammonium Sulphate Solution	Ammonium Nitrate :175-300 gpl Ammonium Sulphate :15-30 gpl	1500 KL
3.	Acidic Raffinate Solution Type-I	ZrO ₂ : Up to 3 gpl, Total acidity(Nitrate) : 2-4 N, Solubles as oxides : 20 gpl, Insolubles : 10% v/v Max.	1000 KL
4.	Ammonium Nitrate Solution Type-I	Ammonium Nitrate: 80-180 gpl	1500 KL
5.	Ammonium Nitrate Solution Type-II	Ammonium Nitrate: 120-150 gpl	1500 KL
6.	Acidic Raffinate Solution Type-II	Nitric acid (Nitrate) : 3-4 N,	400 KL
7.	Used Pickling Solution Type-I	HNO ₃ : 18% to 24% HF : 2 % to 3% ZrO ₂ : 60gpl	15 KL
8.	Used Pickling Solution Type-II	NO ₃ : 10% to 15% F : 1 % to 2. 5% FA : 8% to 11% ZrO ₂ : 1% to 4 %	5 KL
9.	Used Pickling Solution Type-III	Fe : 50 to 90 gpl Cr : 10 to 20 gpl TOx : 50 to 120 gpl NO ₃ : 75 to 150 gpl F : 50 to 90 gpl TDS : 120 to 400 gpl	3 KL
10.	Copper Nitrate Solution	Cu content:240-280 gm/ltr Specific gravity:1.6-1.7 gm/cc Residual nitric acid:5-10%.	20 KL
11.	MgCl ₂ Gr.I&II in 4:1 ratio	MgCl₂(Grade I) MgCl ₂ : > 99% Moisture & Volatiles :< 1% MgCl₂(Grade II) MgCl ₂ : >90% Magnesium : 5% Zirconium : <1% Moisture & Volatiles: <5%	150 MT (120MT GrI & 30MT GrII)
12.	Zirconium Chloride Waste	ZrO ₂ : 40-50% Chlorides : 25 -30% Moisture : 18 - 35% , Other impurities: 2 - 3%	15 MT

13.	Mg-Scrap Gr-I	Mg: 35-45 % MgCl ₂ :48-58 %	15 MT
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S.No	Name of the Effluent	Chemical Composition	Quantity / Month
14.	Acidic Silt	ZrO ₂ : 3 % to 8 % HNO ₃ : 2 % to 5 % Insolubles : 40 % to 70 % Moisture : Balance.	60 MT
15.	Sodium Nitrate/ Silicate Cake	NaNO ₃ : 20 % Na ₂ SiO ₃ : 10%	Available stock is 3000 MT
16.	CaF ₂ bearing cake	Calcium : 14-15% Fluoride : 3-4% Nitrate : 3-5 % Sulphate : 20-25% Moisture : 10-15% LOI : 50% @ 120°C	10 MT
17.	Chloride Scrub solution	Chloride : 157.2 g/l Sodium : 65.6 g/l pH : 10.1 Zirconium : < 5 ppm	250 KL
18 (a)	Polythene, Rubber & Plastic waste	-----	1000 Kgs
18 (b)	Polythene, Rubber & Plastic waste	-----	Accumulated stock is 40 MT
19	Used graphite crucibles (10-30 mm dia; 20-40 mm ht.)	-----	3000 Nos
20	Used Ceramic crucibles (20-40 mm dia; 20-40 mm ht.)	-----	2000 Nos
21	Used sponge plugs	-----	100 Kgs
22	Spent Cationic/Anionic resin	-----	100 lit

1.0 DETAILS TO BE SUBMITTED BY THE FIRMS

Firms interested in processing the above materials shall give the schematic flow sheet of their proposed process for the treatment of effluents along with equipment, storage details and method of disposal of the effluents by the firm after treatment.

The firms shall have the following valid clearance certificates / licenses.

- i) **State Pollution Control Board's Clearance- valid consent order copy obtained for the operation of the firm from state pollution control board.**
- ii) **State Industrial License Registrars certificate to operate the Industry**

iii) For Ammonium Nitrate bearing effluents: Explosive License from Petroleum and Explosive Safety Organization (PESO) to handle/purchase/process/sale of Ammonium Nitrate.

The Firms already having the necessary statutory clearances i.e CFO etc., shall enclose the copy of the same. The Firms which are yet to set up the facility and obtain the statutory clearances shall clearly indicate the time schedules for setting up the facility and for obtaining the statutory clearances..

The firm should indicate minimum quantity that they can collect and process every month. The firm is required to submit all the information asked for in the **Annexure** in the absence of which, their proposal shall not be considered.

After obtaining the details of possible purchasers, a separate public tender shall be published for inviting bids for collection of each individual effluent.

This advertisement is to develop the new effluent purchasers in addition to the existing effluent purchasers of NFC. The existing effluent purchasers are also requested to submit the details considering their revised storage/processing capacities.

2.0 HOW TO APPLY:

The duly filled in documents along with the enclosures if any and **Annexure** should be submitted in sealed cover within the stipulated time, addressed to :

Sr. Manager (EM section)
Nuclear Fuel Complex
ECIL (POST)
HYDERABAD – 500 062

The sealed documents should reach the office of Sr. Manager (EM section), NFC by 16:00 hrs on **26.10.2017**.

Yours faithfully,

(R.V.R.L. VISWESWAR RAO)
Sr. Manager (EM)
for and on behalf of the President of India

ANNEXURE

INFORMATION TO BE SUPPLIED BY THE FIRMS.

S.No	Description		Firm's Response
1.	Firm's name & address with telephone number, email & Fax	:	
2	Name of the concerned Officer-in-charge, Telephone Number and Address		
3	Whether the factory is owned or leased by the Firm.	:	
4	Financial status of the firm. If mortgaged, name of the financier. (i.e Banks, TSIDC, APSSIDC, etc.) ?		
5	Current status of the firm. If working, details of the products being produced.	:	
6	Facilities at the factory i) Plant area ii) Open land iii) Details of Equipment / Storage tanks, processing capacity etc., iv) Details of the transportation facilities available for collection of effluent. v) Details of previous experience in handling chemicals/effluents.	:	
7	Permanent Account Number (PAN) allotted by Income Tax Dept. (Enclose latest Income Tax Clearance Certificate)	:	
8	GSTIN. Number. Please attach GST certificate	:	

Name & Signature

Station:

Date: