

T/21.2(2017)
May 31, 2017

Dear Sir,

**Subject: Group Discussion on "Operation and Maintenance Problems of Urea Plants",
13-15 July 2017, NFL, Nangal, Punjab, India**

Urea is the major fertiliser product accounting for about 81% of N consumption in the country. Indian produced 24.2 million tonnes of urea in 2016-17. Manufacturing of Urea is a very complex process involving a synthesis step and a number of decomposition and separation stages. There are challenges in maintaining optimum process parameters and use of most suitable MOC for various Equipments. Complexities in process of manufacturing urea require a high level of acumen for efficient operation as well as dexterity in maintenance for safety and reliability of the plant. Operations in optimum mode and reliability of the equipment are vital for achieving high-energy efficiency and product quality, and maintaining high safety and environmental standards. This assumes more significance as plants are getting older and operating at about 20-25% higher than the designed capacity. Numerous technological developments have been incorporated over the years even in vintage plants. There is a vast pool of knowledge and experience available within the industry. Sharing of such experience and knowledge can help the plant personnel to improve plant productivity and optimise the use of resources.

In this context, FAI is organising the next Group Discussion on "Operation and Maintenance Problems of Urea Plants" at NFL, Nangal during 13-15 July 2017. The 3-day programme includes a visit to NFL plants. The objective of the discussion is to take advantage of the in-house expertise of the industry for improving overall productivity of urea plants. The programme is targeted at personnel engaged in operation and in mechanical, electrical and instrumentation maintenance. Participants are required to send in advance a brief description of the problems in order to draw up the agenda for discussion. A format for collecting the problem is attached. The format may be sent in advance to enable us to draw the agenda for discussion.

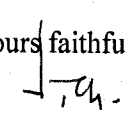
NFL has agreed to host the Group Discussion at Nangal on payment basis and provide the logistic support to the programme. A participation fee of US\$ 500/- (US Dollars five hundred only) per participant plus applicable service tax for single occupancy will be charged. The fee will cover cost of boarding and lodging for 3 nights and programme kit. An instruction sheet is enclosed for further information on the Group Discussion.

Our past experience shows that such discussions are of immense value to the participants. We are sure that you would like to avail of this unique opportunity by nominating suitable engineers from your unit from the areas of operation and maintenance of urea plant. It is requested that nomination(s) should reach us latest by the 30th June 2017 by fax / e-mail / post along with a Demand Draft in favour of "The Fertiliser Association of India" payable at New Delhi. The payment can also be made by online transfer details are given in the nomination form.

Due to limited accommodation available in Guest House at NFL Nangal, number of participants will be limited to 40 on first come first serve basis. All correspondence on the subject may be sent to Mr. Manish Goswami, Chief (Technical), Phone: +91-11-46005223; Fax: +91-11-26960052 and e-mail: tech@faidelhi.org.

Thanking you,

Yours faithfully,



(Satish Chander)

Instruction Sheet

Group Discussion on “Operation and Maintenance Problems in Urea Plants”

13-15, July 2017

NFL Nangal, Punjab, India

1. The Nangal operates ammonia and urea plants commissioned in 1978 based on fuel oil. The ammonia plant was converted to natural gas in 2013 with KBR steam reforming process with Purifier Technology. The urea plant is based on Montedison technology and was revamped in 2001 by Casale to increase its capacity from 1000 MTPD to 1450 MTPD. The steam generation power plant is based on coal.
2. Participants will have to send the operation and maintenance related problems of their unit for discussion to FAI (tech@faidelhi.org) in advance for drawing the programme for discussion. It is absolutely essential that problems be sent to us at the earliest (in advance) to enable to draw the agenda for discussion. The format for collecting the information is attached. The filled-in format may be provided latest by 30th June 2017.
3. The Programme will start on 13th July 2017 at 9.00 AM and will be over by the afternoon of 15th July 2017. A copy of the tentative programme is enclosed.
4. The stay arrangements have been made from the night of 12th July till night of 14th July 2017 (i.e. 3 nights) on double occupancy basis. Stay for additional nights will be chargeable.
5. Location and Transportation
 - 5.1 Nangal is situated at a distance of 100 kms from Chandigarh – the joint capital of Punjab and Haryana. The nearest railway station is Nangal Dam. The plant is about 2-3 kms from Nangal Dam Railway Station. The nearest airport is Chandigarh.
 - 5.2 NFL will arrange for pick and drop from Nangal Dam Railway station. However, pickup and drop from Chandigarh Airport/railway station will be chargeable. Kindly intimate your requirement directly to NFL. The contact person's details are as follows:

Mr. D. S. Tomar, Senior Manager (HR), NFL, Nangal, email: dstomar@nfl.co.in and Mobile:- +919464769185

FAI Group Discussion on
"Operations and Maintenance Problems of Urea Plants"
13-15 July 2017, NFL, Nangal

TENTATIVE PROGRAMME

Wednesday, 12th July 2017

- 1300 hrs. onwards** : **Arrival of Participants and Lunch**
 1900 hrs. : Registration and Programme Orientation
2000 hrs. : **Dinner**

Thursday, 13th July 2017

- 0900 -0945 hrs. : Opening Session
 0945-1015 hrs. : Tea
 1015-1045 hrs. : Presentation on Improvement in Urea Plants of NFL Nangal
 1045-1300 hrs. : Discussion on Problems Related to Rotating Equipments
 1300 -1400 hrs. : Lunch
 1400-1500 hrs. : Problems associated with Synthesis & Recovery Sections
 1500-1530 hrs. : Tea
 1530 hrs. : Problems associated with Synthesis & Recovery Sections continues
1930 hrs. : **Dinner**

Friday, 14th July 2017

- 0900 -1030 hrs. : Problems associated with Evaporation, Prilling Sections and Product Quality
 1030 -1100 hrs. : Tea
 1100- 1300 hrs. : Problems associated with General Maintenance & Inspection
 1300 -1400 hrs. : Lunch
 1400 -1515 hrs. : Capacity Enhancement, Revamp and Modifications
 1515-1530 hrs. : Tea
 1530-1800 hrs. : Plant visit
2000 hrs. : **Dinner**

Saturday, 15th July 2017

- 0900 -1100 hrs. : Waste water treatment, Pollution control, Safety and other misc. topics
 1100- 1130 hrs. : Tea
 1130-1230 hrs. : Feedback and Conclusion.
 1230-1330 hrs. : Lunch
 1330 -1830 hrs. : Local Sightseeing to Nangal Dam, Naina Devi and Anandpur Shaib Gurudawara (Optional)



Registration Form

FAI GROUP DISCUSSION ON OPERATION AND MAINTENANCE PROBLEMS OF UREA PLANTS 13-15 July 2017, NFL Nangal, Punjab

Mr. Manish Goswami
Chief (Technical)
The Fertiliser Association of India,
FAI House, 10 Shaheed Jit Singh Marg,
New Delhi 110067, India.
Tel: +91-11-46005223, Fax: +91-11-26960052
Email: tech@faidelhi.org

Please register the following executive (s)

Sl. No.	Name	Designation	Occupancy Single /Double	Mobile/e-mail*
1				
2				
3				
..				

**please provide contact details for direct communication to participants.*

Name of the organization:

Address:

Fax :

Email:

Payment Details:

Registration Fee: USD 500/- plus service tax**

**** At present, 14% service tax and 0.5% Swatch Bharat tax and 0.5% Krishi Kalyan tax i.e. (total 15%) are applicable.**

Enclosed Bank Draft No.....dated.....drawn onfor US \$ -----/ favouring of "The Fertiliser Association of India", payable at New York contribution for registration of the above delegate (s) @ US\$ 500/- plus 15% service tax per participant.

OR Wire Transfer: MODE OF TRANSFERRING OF FUNDS TO FAI IS THROUGH ITS CITIBANK ACCOUNT

"Please transfer in MT 103 format, US\$ _____ on _____ (date) by order of (senders name) to Citibank, New York for credit to Citibank, NA, Delhi, India's account no. 36241797 favouring The Fertiliser Association of India for credit to GCB Customer Current A/c No. 0414462006. The Purpose of remittance is _____."

SWIFT CODE: CITIINBX

Routing (ABA) No.: 021000089

Please fax copy of your banker's advice to us for our follow up.

Sponsoring authority:

Name & Designation:

Telephone/Mobile:

**Format for collecting Problems related to Operation and Maintenance Problems of Urea Plants
(Additional space may be created wherever required)**

Name of the Plant:

SI. NO.	Section/Area	Description of Problem
I	Ammonia Pumps	
1		
2		
3		
II	Carbamate Pumps	
1		
2		
3		
III	Slurry and other pumps	
1		
2		
3		
IV	CO2 Compressor	
1		
2		
3		
V	Autoclave/Reactor	
1		
2		
3		
VI	Decomposer /Stripper	
1		
2		
3		
VII	Carbamate Condenser	
1		
2		
3		
VIII	Ammonia /CO2 recovery coloum	
1		
2		
3		

Sl. NO.	Section/Area	Description of Problem
IX	Absorbers/ Recovery Vessels	
1		
2		
3		
X	Evaporators/Crystallisers	
1		
2		
3		
XII	Prilling Section	
1		
2		
3		
XIII	Steam Ejector /Vacuum Generator	
1		
2		
3		
XIV	Centrifuge	
1		
2		
3		
XV	Conveyors/Elevators	
1		
2		
3		
XVI	Miscellaenous (Ammonia Pre heater, Heat exchangers, Dryer /cooler, Blower, Fans, Pipings/Valves, others)	
1		
2		
3		

Sl. NO.	Section/Area	Description of Problem
XVII	Instrumentation	
1		
2		
3		
XVIII	Product Quality	
1		
2		
3		
XIX	Waste Water Treatment, Pollution Control, etc	
1		
2		
3		
XX	Safety	
1		
2		
3		
XXI	General Maintenance and Inspection	
1		
2		
3		
XXII	Capacity Enhancement, Revamp and Modification	
1		
2		
3		