ARVIND CHAUDHARY

IES (Retd.) Director General

THE FERTILISER ASSOCIATION OF INDIA



T/21.2(2022) 28th December 2022

Dear Sir,

Subject: Group Discussion on "Operation and Maintenance Problems of Urea Plants", 1st to 4th February 2023, Hotel Country Inn by Radisson, Kota

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 very high load after debottlenecking designed capacity. Numerous technological developments have been incorporated over the years even in vintage plants. There are 41 urea plants in operation. 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" during 1-4 February 2023 at Hotel Country Inn by Radisson, Kota. The 4-day programme includes a visit to CFCL, Gadepan 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. It is absolutely essential that we receive problems at least two weeks in advance for inclusion in the agenda.

A participation fee of Rs 24,500/- (Rupees Twenty four thousand five hundred only) per participant plus GST on double occupancy and Rs. 31500/- (Rupees Thirty one thousand five hundred only) plus GST for single occupancy will be charged from member companies. The fee will cover cost of boarding and lodging for 3 nights and programme kit. The fee for non-residential participants 15000/- (Rupees Fifteen thousand only)plus GST for a member company. 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 **January 25, 2023.** The payment transfer modes are given in the nomination form.

All correspondence on the subject may be sent to Dr. S. Nand, Additional Director General, Phone: +91-11-46005200; Fax: +91-11-26960052 and e-mail: tech@faidelhi.org.

Thanking you,

Yours faithfully

(Arvind Chaudhary)

Instruction Sheet

Group Discussion on "Operation and Maintenance Problems in Urea Plants" 1-4th February 2023 Country Inn & Suites by Radisson, Kota

1. **Venue:** The programme venue is Country Inn & Suites by Radisson, Plot No. 4 & 5 Rajeev

Gandhi Nagar, Jhalawar Road, Kota, 324005, India

Tel: +91 744 2666 777

Hotel Country Inn & Suites by Radisson is a four-star hotel in Kota located about 11 km from Kota Railway Station. Nearest airport is Jaipur situated at about 250 km from Kota.

- 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 25th January 2023.
- 3. The Programme will start on 1st February 2023 at 1500 hrs and will be over by the afternoon of 4th February 2023. A copy of the tentative programme is enclosed.
- 4. The stay arrangements have been made from the afternoon of 1st February 2023 till afternoon of 4th February 2023 (i.e. 3 nights) on double/single occupancy as per nomination by the Company. Stay for additional nights will be chargeable.
- 5. Visit to the facilities of Chambal Fertilisers and Chemicals Limited, Gadepan will also be arranged. CFCL operates three large ammonia and urea plants. The CFCL Gadepan Unit I ammonia plant is based on Haldor Topsoe and urea plant technology is Snamprogetti. The ammonia plants of CFCL Gadepan Units II and III are Kellogg and urea plants are based on Toyo. The CFCL Gadepan-III Urea Plant is the largest plant having daily production capacity of 4000 MT per day prilled urea. This urea plant is designed by Toyo Engineering Corporation (Japan) using its best and efficient features like ACES21 technology, Vertical Submerged Carbamate Condenser and improved metallurgy like DP28W material.



REGISTRATION FORM FAI Group Discussion

"Operation and Maintenance Problems of Urea Plants" 1^{st} to 4^{th} February 2023, Hotel Country Inn & Suites by Radisson, Kota

Dr. S. Nand Additional Director General The Fertiliser Association of India, FAI House, 10 Shaheed Jit Singh Marg, New Delhi 110067, India.

Tel: +91-11-46005200; 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					
4					
particip		details for direct commadditional forms)	nunication to parti	cipants. (if you wish to	o nominate more
Z. Deta	Name of the org				
	Address:				
	Fax:		Email:		
	For raising invo	ice, please provide follow	ing additional info	rmation:	
	PAN Number:		GST N	umber:	
	Billing Address: (if different from				
3. Reg	istration Fee:	Double Occupancy Single Occupancy Non-Residential	-Rs.31,500/- plus	s 18% GST per participo s 18% GST per participa s 18% GST per participa	nt
4. Pay	ment Options:				
		ft /at par cheque /NEFT /I r Association of India" pa			orepared in favour
		S: If payment has been made Reference number			
5. Sp	onsoring authori	ity: Name & Designa	ation:		

Telephone/Mobile:

Email : <u>acctt@faidelhi.org</u> secy@faidelhi.org Website : <u>www.faidelhi.org</u>



Telephone : 46005204 : 26960052

The Fertiliser Association of India
Registered Office: FAI House, 10, Shaheed Jit Singh Marg
New Delhi – 110 067
CIN: U85300DL1955NPL002999

Canara Bank

Baneficiary Name	THE FERTILISER ASSOCIATION OF INDIA	
Baneficiary Address	FAI House, 10, Shaheed Jit Singh Marg, New Delhi – 110 067	
Baneficiary Tel.No.	011-46005235	
Bank Name	Canara Bank	
Bank Address	Jit Singh Marg, New Delhi - 110 067	
Bank Telephone No.	011-26960890 / 011-26960593	
Bank Fax No.	011-26601661	
Branch Name	Jit Singh Marg, New Delhi - 110 067	
Bank Code & Branch Code	1484	
SWIFT Number / RTGS	cnrb0001484	
Bank Account Number	1484101006029	
IFSC Code	cnrb0001484	
Account Type	Saving Bank	
Account Currency	Indian Rupees	

Format for collecting Problmes related to Operation and Maintenance Problems of Urea Plants

(Additional space may be created whereever required)

- A. General Information
 - 1 Name and Location of the Plant
 - 2 Urea plant process technology
 - 3 Number of streams
 - 4 Revamped Capacity (MTPD)

B. Problems Descritpion

SI. NO.	Section/Area	Description of Problem
1	Ammonia Pumps	
1		
2		
3		
	Carbamate Pumps	
1	Carbaniate Pullips	
2		
3		
	Slurry and other pumps	
1		
3		
IV	CO2 Compressor	
1		
2		
3		
.,	Autologo /Departer	
V 1	Autoclave/Reactor	
2		
3		
VI	Decomposer /Stripper	
1		
3		
3		
VII	Carbamate Condenser	

SI. NO.	Section/Area	Description of Problem
2		
3		
VIII	Ammonia /CO2 recovery coloum	
1		
2		
3		
12/	Alexandrana / Danasa ana Masaala	
IX 1	Absorbers/ Recovery Vessels	
2		
3		
l x	Evaporators/Crystallisers	
1	, ,	
2		
3		
XII	Prilling Section	
1		
2		
3		
VIII	Steam Ejector /Vacuum Generator	
1	Steam Ejector / vacuum Generator	
2		
3		
XIV	Centrifuge	
1		
2		
3		
XV	Conveyors/Elevators	
1		
2		
3		

SI. NO.	Section/Area	Description of Problem
	,	·
XVI	Miscellaenous (Ammonia Pre heater, Heat exchangers,	
	Dryer /cooler, Blower, Fans, Pipings/Valves, others)	
1		
2		
3		
XVII	Instrumentation	
1		
2		
3		
XVIII	Product Quality	
1	. round duality	
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		