पारादीप इकाई
PARADEEP UNIT
इंडियन फारमर्स फर्टिलाइजर कोआपरेटिव लिमिटेड
INDIAN FARMERS FERTILISER COOPERATIVE LTD.
इफको
पूर्णतः सहकारी स्वामित्व
IFFCO
Wholly owned by Cooperatives

Ref No. EPC/ MoEF & CC/112/2024-25(1)

Date: 28.5.2025
E-mail roez.bsr-mef@nic.in

To,
The Regional Officer
Integrated Regional Office, Bhubaneswar
Ministry of Environment, Forest & Climate Change
Government of India,
A/3, Chandrasekharpur, Bhubaneswar – 751 023

Sub: Half yearly compliance reports in respect of the stipulated prior EC terms and conditions issued to IFFCO Paradeep Unit for the period October 2024 to March 2025.

Ref: a) Environmental Clearance No. J-11011/34/97-IA II dated 31st July'1998, Letter No. J-11011/34/97-IA II [I] dated 2nd Mar'2000, Letter No.J-11011/34/1997-IA II [I] dated 3rd April'2017 and File No. 106-12/EPE dated 11.5.2020 for IFFCO Paradeep Unit.

b) Environmental Clearance No.: EC23A016OR195879 dated 14.3.2023 {File No. J-11011/34/1997-IA-II (I)} for Expansion for Nano-Fertiliser, Paradeep Unit.

Dear Sir,

Please find the Half-yearly compliance reports in respect of the stipulated prior EC terms and conditions issued in the name of IFFCO Paradeep Unit & Expansion for Nano-Fertiliser, Paradeep Unit for the period from October-2024 to March-2025 enclosed herewith as Annexure – I & Annexure-II respectively.

As per the stipulation, the half yearly compliance report (a single PDF document) contains the covering letter, compliance report and environmental monitoring reports as per the given format. Also the compliance report is uploaded in the website of IFFCO Paradeep Unit with URL ID http://www.iffco.in/index.php/productionunit/index/paradeep

Hope the report is in order.

Thanking you,
Yours faithfully,
For and On behalf of Indian Farmers Fertiliser Cooperative Ltd.

(P K Mahapatra)
Unit Head

Encl: As above
Cc: Member Secretary,
State Pollution Control Board, Odisha
Bhubaneswar – Hard copy & soft copy
through E-mail to paribesh1@dataone.in : for kind information please.

Annexure - I

HALF-YEARLY COMPLIANCE REPORT

Name of the Project : **Indian Farmers Fertiliser Cooperative Limited, Paradeep Unit**

Clearance Letter/s No. and Date : **J-11011/34/97-IA II dated 31st July'1998,**
J-11011/34/97-IA II [I] dated 2nd Mar'2000 &
J-11011/34/1997-IA II [I] dated 3rd April'2017.

Period of Compliance Report : **October 2024 to March 2025**

Specific Conditions:

Sr No.	Conditions	Compliance Status
i	The gaseous emissions (SO_2, Nox, Acid Mist, Fluorine, Ammonia and HC) and particulate matter from various process units / storage should conform to the standard prescribed by the concerned authorities from time to time. As reflected in EMP the company should provide the following pollution control measures. Tail gas alkali scrubbing system for control of SO_2 emission during startup and upset conditions in the Sulphuric acid plant. Fume scrubber to scrub off fluorine gases and hydrofluorosilisic acid. A fluorine recovery system should also be provided in the Phosphoric acid plant. Dual mole scrubbing system for removal of both dust and volatiles (Ammonia, Hydrofluoric acid and Silico Tetrafluorides) in the DAP Plant The pollution control device should be provided with interlocking facilities with the manufacturing process	The gaseous emissions (SO_2, NO_x, Acid Mist, Fluorine & Ammonia) and Particulate Matter from various process units confirm the standards prescribed in 'Consent to Operate' issued by the State Pollution Control Board, Odisha. IFFCO Paradeep has installed pollution control equipment like alkali scrubber for control of SO_2 emission during start up and shut down of Sulphuric Acid Plant, Fume Scrubber and Additional Pre Scrubber to scrub off fluorine gases and recover hydro fluosilicic acid in Phosphoric Acid Plant & Dual mole scrubbing system for recovery of dust and volatiles in DAP/NP plant. All the above pollution control equipment are working satisfactorily. The Stack monitoring report of various stacks attached to the process plants (SAP, PAP, DAP & AFBC Boiler) for the period from October-2024 to March-2025 is enclosed herewith as Annexure 1(A) to 1(D) for kind perusal. Also, On-line Continuous Emission Monitoring Stations (CEMS) have been installed (SO_2 analyser in SAP Stack, NH_3 analyser in DAP/NP Stacks, PM & HF analysers in PAP Stack and PM, SO_2 & NOx analyser in AFBC Boiler stack). Online real-time data from these analysers are transmitted to both the RT-DAS servers of SPCB, Odisha as well as CPCB, New Delhi.

Sr No.	Conditions	Compliance Status
ii	Ambient air quality Monitoring Station should be set up in the down wind direction as well as where maximum ground level concentration of SPM, SO_2, Fluorine, Ammonia and HC are anticipated in consultation with the State Pollution Control Board. The monitoring stations should be selected on the basis of mathematical modelling to represent short term ground level concentration, human settlements, sensitive targets etc.	Six Ambient air monitoring stations (four in the Plant & two in nearby villages, Ramnagar and Kharinasi) for monitoring of ambient air quality have been installed. The ambient air quality report for the period from October-2024 to March-2025 is enclosed herewith as Annexure 2. Also, three On-line continuous ambient air quality monitoring stations (CAAQMS) have been installed in three locations inside the factory premises in consultation with SPCB, Odisha. Online Ambient Air Quality Monitoring Stations are connected to both the RT-DAS servers of SPCB, Odisha as well as CPCB, New Delhi for real time data transmission. \
iii	Dust suppression and dust extraction systems should be provided to control fugitive emission at material handling points. Fugitive emissions should be regularly monitored, and record maintained. Automatic monitors for detection of ammonia leak should be provided at appropriate locations in the plant.	ESP has been provided in Boiler House and Dry fog dust suppression system has been installed in Coal Handling Plant. Dust suppression system has been provided in strategic locations of material handling e.g. transfer points of cross-country conveyor. Ammonia leak detectors have been provided in the Ammonia Storage area and ammonia handling areas at DAP/NP plant.
iv	There will be no generation of process effluent from Sulphuric acid plant, Phosphoric acid plant and DAP plants. The effluent generated from utilities, spillage, washing and domestic should be treated to conform to MINAS and recycled/ used for green belt development. No effluent shall be discharged outside the premises	Process effluent generated in SAP, DAP and PAP Plants are collected in Guard Pond which is HDPE lined. This effluent is treated in Effluent Treatment Plant of capacity 200m^3/Hr. The treated effluent is recycled & reused in process. During heavy monsoon and any other exigency, arrangements have been made to discharge the treated effluent after conforming to the standard prescribed by SPCB, Odisha as per Consent to Operate (CTO) Order. The analysis report of treated effluent for the six-monthly periods from October-2024 to March-2025 is enclosed herewith as Annexure-3 for kind perusal. Also, on-line Effluent Quality Monitoring System (EQMS) is installed at the outlet of ETP which is connected to both the servers of SPCB, Odisha as well as CPCB, New Delhi for real time data transmission.

Sr No.	Conditions	Compliance Status
vi	Adequate number of influent and effluent quality monitoring stations should be set up in consultation with the State Pollution Control Board. Regular monitoring should be carried out for relevant parameters. Routine toxicity test of effluent with fish food organisms should also be regularly done at least once a month.	Regular monitoring of treated effluent is being carried out for relevant parameters like pH, Phosphate, Fluoride etc. Routine toxicity test of effluent with locally available small fish varieties is carried out and report of the same for the six-monthly periods from October-2024 to March-2025 is enclosed herewith as Annexure 4.
vii	The hazardous solid waste (gypsum and Sulphur sludge) should be disposed of in a scientifically designed landfill site with impervious lining and leachate collection facility. The supernatant from the gypsum pond should be recycled back to the phosphoric acid plant. The design details of the landfill site and long-term plan for utilization of gypsum should be firmed up and report submitted to the Ministry for review within six months	Sulphur sludge (Sulphur muck) is recycled as filler in the granulation unit and excess quantity is disposed of in scientifically designed landfill site with impervious lining and leachate collection facility. Phosphogypsum is stored in scientifically designed Gypsum Pond which is HDPE lined with environmental protection measures. The supernatant from the gypsum pond is recycled back to the phosphoric acid plant for making gypsum slurry for wet disposal of phosphogypsum. Hazardous waste management is carried out as per the “Authorisation for Hazardous Waste” issued by State Pollution Control Board, Odisha.
viii	A scientific study should be commissioned to study the impact on ground water or leachates from the gypsum pond area. The ground water quality should also be regularly monitored, and record maintained.	The ground water quality is regularly monitored from 12 nos ground water monitoring wells (known as test wells). These test wells are constructed as per guidelines up to the second aquifer. Water samples from these test wells are monitored regularly and monitoring report is sent to SPCB Odisha on monthly basis. Test Wells have been provided at different locations inside Plant, especially around the gypsum pond, effluent holding ponds, secured engineering land fill site (SELF) etc for ground water monitoring, The report of two Test Wells located near the Gypsum Pond for the six-monthly periods from October-2024 to March-2025 is enclosed herewith as Annexure 5.
ix	The dredging of Mahanadi riverbed should be undertaken under the supervision of Odisha Water Resources Department	A corpus fund named “Water Conservation Fund” has been created by Govt. of Odisha which is utilized by Water Resources Department for different projects including dredging of riverbed etc. IFFCO Paradeep Unit has contributed around 39 Crores to the fund, over the years.

x	Non-chromate system should be used in all the cooling towers to avoid accumulation of chromate sludge.	Non-chromate based chemical dosing system is being followed in all the cooling towers at IFFCO Paradeep Unit.
xi	No activity will be undertaken by the company in the area falling under CRZ III without the prior permission of MoEF & CC/State Govt.	No activity will be undertaken by IFFCO Paradeep Unit, in the area falling under CRZ III without the prior permission of MoEF & CC/ State Govt.

General Conditions:

Sr No.	Conditions	Compliance Status
i	The project authorities must strictly adhere to the stipulations made by the Odisha Pollution Control Board and State Government	IFFCO Paradeep Unit obtains Consent to Operate from SPCB Odisha from time to time and adhere to the stipulations made their in. Present Consent to Operate issued by SPCB Odisha in the name of IFFCO Paradeep is valid up to 31.3.2026.
ii	No further expansion or modifications in the Plant should be carried out without prior approval of the Ministry of Environment and Forests.	Noted, any expansion/modification shall be carried out with approval from MoEF & CC / as per Rules.
iii	At no time, the emissions should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the units, the respective unit should be immediately put out of operation and should not be restarted until the control measures are rectified to achieve the desired efficiency.	Pollution control Systems are working smoothly, and emissions are maintained well below the prescribed standard. In the event of any problem with the pollution control system, operation of specific plants is stopped and restarted after rectification of the problem.
iv	Guard Pond (s) of sufficient holding capacity should be provided to cope up with the effluents discharge during the process disturbance. The contributing units should be immediately shutdown and should not be restarted without bringing the system back to normalcy.	Guard Pond of 30,000m^3 capacity with impervious HDPE lining system have been constructed for effluent storage. Adequate preventive measures are taken to address the process disturbances efficiently and quickly.
v	The hazardous wastes should be handled as per Hazardous Waste (Management and Handling) Rules, 1989 of the Environment (Protection) Act, 1986.	Hazardous waste management is carried out as per the "Hazardous Waste Authorisation" issued by State Pollution Control Board, Odisha and as per Environment (Protection) Act, 1986.
vi	The project authorities must comply with the provisions of Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 (as amended on 3rd October 1994). The company must finalise the onsite plan and submit the same to the Ministry before commissioning the project taking into account the MSI Rules and its amendments.	The provisions of Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 (as amended on 3rd October 1994) is compiled by IFFCO Paradeep Unit. Also, Onsite Emergency Plan has been prepared and accepted by the Directorate of Factories and Boilers, Govt. of Odisha.

Sr No.	Conditions	Compliance Status
vii	A suitable alarm system and standard procedure for transmitting information on the occurrence of an accident to the proper focal point should be established. Steps should also be taken to ensure access to information on weather conditions prevailing at that time and weather forecast. Windsocks at appropriate locations should be provided.	Alarm system and standard procedures at the time of any incident are practiced as per laid down procedures of Onsite and Offsite Emergency Plans. A weather monitoring station has been installed in plant premises to monitor Temperature, Pressure, Relative Humidity, Wind speed, Wind direction and rainfall. Windsocks have been provided at appropriate locations inside Plant premises and township area.
viii	Graphs/nomograms indicating special distribution of concentrations of toxic gas during day and night under different stability classes and wind conditions should be prepared and displayed at appropriate locations so as to help the designated Emergency Officer/Team to organize rescue operations in case of accidental release of toxic gases/vapours.	Dispersion models for Ammonia, Dos and Don'ts, MSDS of chemicals and other relevant information are displayed in both English and vernacular language in appropriate locations. Assembly points are defined. Dispersion Models for Ammonia at different risk scenarios are prepared and displayed in the Emergency Control Room to help and guide the designated Emergency/Safety Officer/Team to act. Also, these dispersion models are part of On-site as well as Off-site Emergency Plans. Also, safety mock drills on different scenarios including release of toxic gases are carried out at regular intervals.
ix	Necessary approval from the Chief Inspectorate of Explosives, Nagpur should be taken from safety angle with regard to fire and explosion hazards.	Approval from Chief Inspectorate of Explosives has been obtained as per requirement.
x	Greenbelt of adequate width and density should be provided to mitigate the effects of fugitive emission all around the plant. A minimum of 25% of the total land acquired should be developed as green belt in consultation with local DFO. A detailed green belt plan should be submitted to the Ministry for review within three months.	A Greenbelt of adequate width and density has been developed. About 32% of the total land owned by the industry is covered with plantation. The greenbelt development is continuing further with plantation of around 25,000 saplings per year. A Greenbelt survey has been carried out to ascertain available land within plant premises for the plantation program. Accordingly, plantation activity is planned and executed to increase greenbelt coverage. In addition to the above, Plantation is also done by IFFCO in consultation with the local District Administration in the nearby

		area. Some of these areas where IFFCO has carried out Plantation are as below: - From Bagadia to Fatepur Roadside – Avenue Plantation. Dochhaki to Atharbanki in Paradeep – Avenue Plantation Kujang Block (Village-Balia) – Village Forest Kandarpur to Jagatsinghpur - Avenue Plantation. At Navodaya Vidyalaya (Rahama) - School Campus Greenbelt Raghunathpur Block (Village area) - Children Park Kujanga block Baulanga High school campus - Greenbelt Kudanagari high school campus -Canal Road – Medicinal Plant Sukarapada to Nischintakoili Roadside – Avenue Plantation . Shankheswara – Development of Park
Sr No.	**Conditions**	**Compliance Status**
xi	Adequate provisions for infrastructure facilities such as water supply, fuel, sanitation etc. should be ensured for construction workers during the construction phase so as to avoid felling of trees and pollution of water and the surroundings.	Adequate care was taken during the construction phase. Also, utmost care is taken by IFFCO Paradeep Unit for protection of flora and fauna in the surrounding.
xii	Occupational Health Surveillance of the workers should be done on a regular basis and records maintained.	Health checkup of workers is carried out at regular intervals as per Factory Act 1948 & Odisha Factory Rules and record maintained.
xiii	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA and risk analysis report.	Environmental protection measures and safeguards are strictly complied with. The utmost priority is given by IFFCO Paradeep Unit to maintain clean and green surroundings.
xiv	The project proponent should have a scheme for social upliftment in the nearby village with reference to contribution in road construction, education of children, festivals, health centers, sanitation facilities, drinking water supply, community awareness and employment to local people whenever and wherever possible both for technical and non-technical jobs.	IFFCO Paradeep Unit is contributing towards various social welfare measures in nearby villages and localities under IRDP activities. Those measures include road construction, education of children, festivals, health centers, sanitation facilities, drinking water supply and community awareness. During 2024-25, IFFCO has spent around ₹300 Lakhs in the surrounding areas for various social welfare measures.

Sr No.	Conditions	Compliance Status
xv	The project authorities will set up separate environmental management cell for effective implementation of all the above stipulations under control of Sr Executive.	A separate environmental management cell has been set up for the effective implementation of the Environmental Management System. A Senior Executive in the rank of Jt General Manager heads the cell.
xvi	The project authorities will provide adequate funds both recurring and nonrecurring to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds provided should not be diverted for any other purpose.	Adequate resources are allocated from time to time to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. Sufficient funds are provided by the Management for Environment Protection Measures.
xvii	The stipulated conditions will be monitored by the Regional Office of this Ministry at Bhubaneswar / Central Pollution Control Board/ State Pollution Control Board. A six-monthly compliance status report and the monitored data along with statistical interpretation should be submitted to them regularly.	Half yearly compliance report is submitted to the Regional Office of this Ministry at Bhubaneswar on regular basis.

Paradeep
28.5.2025

(P K Mahapatra)
UNIT HEAD

ANNEXURE-1(A)

INDIAN FARMERS FERTILISER CO-OPERATIVE LIMITED, PARADEEP UNIT

STACK ANALYSIS REPORT OF DI-AMMONIUM PHOSPHATE PLANT (TRAIN A, B & C) FOR THE PERIOD OF OCTOBER 2024 TO MARCH 2025

	Train - A						Train - B						Train - C					
	Particulate Matter (mg/Nm^3)			Fluoride (mg/Nm^3)			Particulate Matter (mg/Nm^3)			Fluoride (mg/Nm^3)			Particulate Matter (mg/Nm^3)			Fluoride (mg/Nm^3)		
SPCB Standard	**100.00**			**25.00**			**100.00**			**25.00**			**100.00**			**25.00**		
MONTH	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG
Oct-24	62.0	74.0	68.5	7.2	8.1	7.7	63.0	71.0	66.3	7.5	8.3	7.9	66.0	75.0	70.8	7.8	8.5	8.1
Nov-24	64.0	73.0	69.0	7.5	8.2	7.9	66.0	75.0	71.0	7.6	8.3	8.0	63.0	76.0	70.0	7.9	8.5	8.2
Dec-24	68.0	75.0	71.0	7.4	8.4	8.0	72.0	82.0	78.0	7.9	8.5	8.2	66.0	78.0	73.0	7.6	8.2	8.0
Jan-25	60.0	76.0	69.2	7.8	8.8	8.2	64.0	75.0	69.8	7.2	8.4	7.8	65.0	78.0	71.8	7.1	8.0	7.6
Feb-25	60.0	78.0	68.5	7.3	8.1	7.7	66.0	80.0	73.3	7.5	8.3	8.0	62.0	72.0	68.0	7.3	8.1	7.7
Mar-25	62.0	68.0	65.0	6.9	7.2	7.1	65.0	70.0	68.0	7.6	7.7	7.6	-	-	-	-	-	-
Yearly Status	60.0	78.0	**68.5**	6.9	8.8	**7.8**	63.0	82.0	**71.1**	7.2	8.5	**7.9**	62.0	78.0	**70.7**	7.1	8.5	**7.9**

ANNEXURE-1(B)

INDIAN FARMERS FERTILISER CO-OPERATIVE LIMITED, PARADEEP UNIT

STACK ANALYSIS REPORT OF PHOSPHORIC ACID PLANT FOR THE PERIOD OF OCTOBER 2024 TO MARCH 2025

	Particulate Matter (mg/Nm^3)			Fluoride (mg/Nm^3)		
SPCB Standard	**100.00**			**25.00**		
MONTH	MIN	MAX	AVG	MIN	MAX	AVG
Oct-24	45.0	53.0	49.0	9.3	9.7	9.5
Nov-24	39.0	47.0	43.0	9.2	9.8	9.6
Dec-24	32.0	48.0	39.0	8.7	9.5	9.0
Jan-25	32.0	42.0	36.5	8.5	9.3	9.0
Feb-25	38.0	53.0	44.8	8.9	9.6	9.2
Mar-25	44.0	52.0	48.0	9.5	9.7	9.6
Yearly Status	32.0	53.0	**43.4**	8.5	9.8	**9.3**

ANNEXURE-1(C)

INDIAN FARMERS FERTILISER CO-OPERATIVE LIMITED, PARADEEP UNIT

STACK ANALYSIS REPORT OF SULPHURIC ACID PLANT FOR THE PERIOD OF OCTOBER 2024 TO MARCH 2025

	TRAIN - I						TRAIN - II						TRAIN - III					
	ACID MIST (mg/Nm^3)			SO_2 (Kg/MT of acid produced)			ACID MIST (mg/Nm^3)			SO_2 (Kg/MT of acid produced)			ACID MIST (mg/Nm^3)			SO_2 (Kg/MT of acid produced)		
SPCB Standard	**50.00**			**2.00**			**50.00**			**2.00**			**50.00**			**1.00**		
MONTH	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG
Oct-24	37.5	41.2	39.5	1.33	1.45	1.39	39.6	42.5	40.9	1.36	1.52	1.45	20.8	24.5	22.8	0.31	0.39	0.36
Nov-24	37.8	40.2	39.1	1.32	1.48	1.42	39.5	42.5	41.0	1.31	1.49	1.41	21.8	23.4	22.7	0.33	0.41	0.36
Dec-24	38.7	41.3	40.1	1.30	1.45	1.38	39.8	43.2	41.5	1.33	1.50	1.41	24.2	27.3	25.4	0.35	0.44	0.40
Jan-25	39.5	43.2	41.3	1.35	1.44	1.40	38.5	43.5	40.8	1.33	1.50	1.43	21.4	24.4	22.7	0.30	0.38	0.34
Feb-25	27.5	45.4	36	0.82	1.46	1.13	29.3	44.5	39.4	0.69	1.49	1.25	20.8	25.7	23.3	0.29	0.38	0.34
Mar-25	40.7	43.4	42.1	1.22	1.52	1.37	42.5	42.5	42.5	1.49	1.49	1.49	23.7	24.2	23.95	0.34	0.38	0.36
Yearly Status	27.5	45.4	**39.7**	0.82	1.52	**1.35**	29.3	44.50	**41.0**	0.69	1.52	**1.41**	22.12	24.92	**23.48**	0.32	0.40	**0.36**

ANNEXURE-1(D)

INDIAN FARMERS FERTILISER CO-OPERATIVE LIMITED, PARADEEP UNIT

STACK ANALYSIS REPORT OF AFBC BOILER FOR THE PERIOD OF OCTOBER 2024 TO MARCH 2025

	TRAIN - A									TRAIN - B								
	Particulate Matter (mg/Nm^3)			SO_2 (mg/Nm^3)			NO_2 (mg/Nm^3)			Particulate Matter (mg/Nm^3)			SO_2 (mg/Nm^3)			NO_2 (mg/Nm^3)		
SPCB Standard	**100.00**			**600.00**			**600.00**			**100.00**			**600.00**			**600.00**		
MONTH	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG
Oct-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nov-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dec-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jan-25	37.0	42.0	39.5	546.0	570.0	558.0	310.0	324.0	317.0	34.0	38.0	36.0	528.0	558.0	543.0	284.0	308.0	296.0
Feb-25	-	-	-	-	-	-	-	-	-	36.0	48.0	42.0	540.0	574.0	555.0	258.0	295.0	279.0
Mar-25	-	-	-	-	-	-	-	-	-	42.0	42.0	42.0	530.0	530.0	530.0	264.0	264.0	264.0
Yearly Status	37.0	42.0	**39.5**	546.0	570.0	**558.0**	310.0	324.0	**317.0**	34.0	48.0	**40.0**	528.0	574.0	**542.7**	258.0	308.0	**279.7**

Note: IFFCO has commissioned another Sulfuric Acid Plant (SAP-III)of 2000MTPD capacity with 102TPH Waste Heat Recovery Boiler. Two AFBC Boilers was not required to be operated during these three months (October, November & December) due to contineous generation of steam from Waste Heat Recovery Boiler attached to three Sulphuric Acid Plant (SAP).

ANNEXURE-2

INDIAN FARMERS FERTILISER COOPERATIVE LIMITED, PARADEEP UNIT

AMBIENT AIR QUALITY MONITORING REPORT FOR THE PERIOD OF OCTOBER 2024 TO MARCH 2025

	$PM_{2.5}$ (µg/m3)			PM_{10} (µg/m3)			SO_2 (µg/m3)			NO_2 (µg/m3)			NH_3 (µg/m3)		
MONTH	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG
	Location 1: Top of Sewage Treatment Plant Building														
Oct-24	24.0	40.0	33.0	45.0	62.0	55.4	7.5	9.5	8.5	13.2	16.2	14.8	20.4	29.3	26.2
Nov-24	26.0	42.0	35.3	48.0	63.0	54.1	7.5	9.4	8.4	12.9	15.5	14.5	17.5	21.5	19.9
Dec-24	30.0	45.0	36.0	48.0	65.0	55.8	8.2	9.8	8.9	9.7	11.2	10.5	22.7	26.4	24.6
Jan-25	31.0	48.0	38.9	48.0	66.0	57.8	7.2	10.4	8.5	8.3	10.7	9.9	18.7	28.4	22.9
Feb-25	29.0	48.0	36.9	48.0	68.0	59.5	7.5	9.8	8.6	10.5	12.5	11.4	18.7	26.4	23.6
Mar-25	28.0	44.0	35.9	48.0	62.0	54.4	7.1	8.5	7.8	8.8	10.3	9.7	15.4	22.4	18.6
Yearly Status	24.0	48.0	**36.0**	45.0	68.0	**56.2**	7.1	10.4	**8.5**	8.3	16.2	**11.8**	15.4	29.3	**22.6**
	Location 2: Near ETP														
Oct-24	34.0	52.0	39.8	52.0	72.0	59.6	8.9	10.7	9.7	12.7	15.2	14.1	58.5	90.5	77.3
Nov-24	34.0	50.0	39.6	50.0	78.0	58.9	8.7	10.5	9.6	12.8	15.3	14.1	48.5	63.2	55.1
Dec-24	35.0	53.0	40.3	53.0	75.0	60.7	10.2	11.9	11.0	10.7	12.8	11.7	63.2	72.5	68.5
Jan-25	40.0	55.0	47.3	58.0	82.0	67.1	11.7	13.9	12.6	9.9	13.4	11.0	48.5	63.8	56.4
Feb-25	39.0	55.0	45.8	56.0	74.0	63.4	10.8	13.2	12.3	13.2	14.9	14.1	50.4	65.8	58.9
Mar-25	35.0	52.0	41.8	50.0	78.0	60.8	10.7	12.0	11.3	10.2	13.4	12.1	22.5	61.3	38.4
Yearly Status	34.0	55.0	**42.4**	50.0	82.0	**61.8**	8.7	13.9	**11.1**	9.9	15.3	**12.9**	22.5	90.5	**59.1**
	Location 3: Swarnajayanti Sabhagriha (Near Gate No. 1)														
Oct-24	27.0	45.0	35.9	48.0	68.0	57.1	8.0	9.8	8.9	14.5	17.5	15.9	27.4	31.2	29.0
Nov-24	30.0	45.0	38.0	47.0	65.0	55.0	8.2	9.5	9.0	13.9	16.5	15.5	20.5	24.7	22.2
Dec-24	34.0	48.0	38.1	47.0	68.0	57.7	9.5	10.5	10.0	9.8	11.7	10.9	25.3	29.2	27.5
Jan-25	38.0	53.0	44.7	53.0	78.0	62.7	9.4	10.9	10.1	10.2	12.1	11.1	18.4	24.5	22.3
Feb-25	30.0	51.0	39.5	49.0	72.0	59.5	9.7	11.2	10.4	10.7	13.5	11.8	24.3	30.2	27.9
Mar-25	30.0	46.0	36.9	45.0	65.0	55.6	7.9	9.3	8.7	9.5	10.8	10.1	17.5	28.8	21.0
Yearly Status	27.0	53.0	**38.9**	45.0	78.0	**57.9**	7.9	11.2	**9.5**	9.5	17.5	**12.6**	17.5	31.2	**25.0**

	$PM_{2.5}$ (µg/m3)			PM_{10} (µg/m3)			SO_2 (µg/m3)			NO_2 (µg/m3)			NH_3 (µg/m3)		
MONTH	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG
	Location 4: Near Ammonia storage tank														
Oct-24	30.0	50.0	38.3	52.0	70.0	58.6	7.8	9.6	8.8	13.7	15.3	14.6	27.6	33.8	30.6
Nov-24	32.0	46.0	37.6	49.0	72.0	57.5	8.0	9.7	9.1	14.3	17.2	15.8	23.2	28.3	25.6
Dec-24	29.0	46.0	37.2	50.0	70.0	58.1	9.8	11.2	10.6	10.5	12.5	11.6	30.5	37.8	34.8
Jan-25	35.0	52.0	42.9	55.0	75.0	63.4	9.4	11.3	10.3	10.5	13.8	11.9	23.5	30.2	26.4
Feb-25	37.0	50.0	43.0	55.0	70.0	61.9	10.4	12.5	11.2	12.8	15.3	14.0	27.2	37.3	32.4
Mar-25	31.0	50.0	38.6	52.0	67.0	58.3	9.5	11.8	10.6	9.6	12.1	10.7	16.5	29.3	21.8
Yearly Status	29.0	52.0	**39.6**	49.0	75.0	**59.6**	7.8	12.5	**10.1**	9.6	17.2	**13.1**	16.5	37.8	**28.6**
	Location 5: RAMNAGAR Village														
Oct-24	21.0	21.0	21.0	39.0	39.0	39.0	6.4	6.4	6.4	13.7	13.7	13.7	14.2	14.2	14.2
Nov-24	24.0	24.0	24.0	42.0	42.0	42.0	7.5	7.5	7.5	9.2	9.2	9.2	15.4	15.4	15.4
Dec-24	28.0	28.0	28.0	49.0	49.0	49.0	7.8	7.8	7.8	9.2	9.2	9.2	18.5	18.5	18.5
Jan-25	25.0	25.0	25.0	51.0	51.0	51.0	8.1	8.1	8.1	10.4	10.4	10.4	17.2	17.2	17.2
Feb-25	20.0	20.0	20.0	48.0	48.0	48.0	7.8	7.8	7.8	9.2	9.2	9.2	12.7	12.7	12.7
Mar-25	23.0	23.0	23.0	45.0	45.0	45.0	7.1	7.1	7.1	8.2	8.2	8.2	13.2	13.2	13.2
Yearly Status	20.0	28.0	**23.5**	39.0	51.0	**45.7**	6.4	8.1	**7.5**	8.2	13.7	**10.0**	12.7	18.5	**15.2**
	Location 6: KHARINASI Village														
Oct-24	20.0	20.0	20.0	41.0	41.0	41.0	6.2	6.2	6.2	13.4	13.4	13.4	15.1	15.1	15.1
Nov-24	20.0	20.0	20.0	43.0	43.0	43.0	6.9	6.9	6.9	8.7	8.7	8.7	16.2	16.2	16.2
Dec-24	24.0	24.0	24.0	46.0	46.0	46.0	6.4	6.4	6.4	8.1	8.1	8.1	17.8	17.8	17.8
Jan-25	22.0	22.0	22.0	44.0	44.0	44.0	6.5	6.5	6.5	8.5	8.5	8.5	17.5	17.5	17.5
Feb-25	22.0	22.0	22.0	43.0	43.0	43.0	7.1	7.1	7.1	8.3	8.3	8.3	12.4	12.4	12.4
Mar-25	21.0	21.0	21.0	43.0	43.0	43.0	6.7	6.7	6.7	7.3	7.3	7.3	12.8	12.8	12.8
Yearly Status	20.0	24.0	**21.5**	41.0	46.0	**43.3**	6.2	7.1	**6.6**	7.3	13.4	**9.1**	12.4	17.8	**15.3**

ANNEXURE-3

INDIAN FARMERS FERTILISER CO-OPERATIVE LIMITED, PARADEEP UNIT

ANALYSIS REPORT OF TREATED TRADE EFFLUENT FOR THE PERIOD OF OCTOBER 2024 TO MARCH 2025

	pH			SS in mg/l			TDS in mg/l			COD in mg/l			Oil & Grease in mg/l			Fluoride as F in mg/l			Phosphate as P in mg/l		
SPCB Standard	**6.5 to 8.5**			**100.00**			**2100.00**			**250.00**			**10.00**			**2.00**			**5.00**		
MONTH	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG
Oct-24	7.69	7.82	7.75	14.0	18.0	16.8	1234	1452	1333	18.0	24.0	21.3	4.5	5.2	4.9	1.8	1.9	1.8	4.1	4.4	4.2
Nov-24	7.70	7.84	7.78	14.0	20.0	17.0	1350	1448	1400	20.0	25.0	22.8	4.2	5.2	4.8	1.7	1.9	1.8	3.9	4.1	4.0
Dec-24	7.58	7.75	7.68	14.0	21.0	17.0	1084	1532	1317	24.0	32.0	28.0	4.9	5.5	5.2	1.6	1.8	1.7	4.2	4.5	4.4
Jan-25	7.63	7.84	7.74	18.0	24.0	21.0	1630	1728	1686	21.0	25.0	23.0	4.7	5.2	4.9	1.5	1.8	1.6	3.8	4.2	3.9
Feb-25	7.64	7.73	7.69	14.0	20.0	18.0	1308	1554	1416	22.0	28.0	25.0	4.5	5.2	4.9	1.7	1.8	1.7	3.7	4.2	3.9
Mar-25	7.66	7.87	7.78	20.0	28.0	24.0	1262	1457	1355	24.0	30.0	27.0	4.7	5.3	5.0	1.6	1.7	1.6	3.4	4.1	3.8
Yearly Status	7.58	7.87	**7.74**	14.0	28.0	**19.0**	1084	1728	**1418**	18.0	32.0	**24.5**	4.2	5.5	**5.0**	1.5	1.9	**1.7**	3.4	4.5	**4.0**

ANNEXURE - 4

INDIAN FARMERS FERTILISER CO-OPERATIVE LIMITED, PARADEEP UNIT

ANALYSIS REPORT OF TOXICITY TEST WITH TREATED EFFLUENT OF STP & STORM WATER DRAIN OUTLET FOR THE PERIOD OF OCTOBER 2024 TO MARCH 2025

Sl. NO.	MONTH	DATE	SAMPLE LOCATION	SPECIFIED NORM.	OBSERVATION	REMARKS
1	OCTOBER	7.10.2024	Treated effluent of STP	Min. 90% survival of fish after 96 hrs	100% survival of fish observed	Conforms the specified norm
2	OCTOBER	22.10.2024	Storm water Drain Outlet	Min. 90% survival of fish after 96 hrs	100% survival of fish observed	Conforms the specified norm
3	NOVEMBER	9.11.2024	Treated effluent of STP	Min. 90% survival of fish after 96 hrs	100% survival of fish observed	Conforms the specified norm
4	NOVEMBER	25.11.2024	Storm water Drain Outlet	Min. 90% survival of fish after 96 hrs	100% survival of fish observed	Conforms the specified norm
5	DECEMBER	11.12.2024	Treated effluent of STP	Min. 90% survival of fish after 96 hrs	100% survival of fish observed	Conforms the specified norm
6	DECEMBER	27.12.2024	Storm water Drain Outlet	Min. 90% survival of fish after 96 hrs	100% survival of fish observed	Conforms the specified norm
7	JANUARY	4.1.2025	Treated effluent of STP	Min. 90% survival of fish after 96 hrs	100% survival of fish observed	Conforms the specified norm
8	JANUARY	24.1.2025	Storm water Drain Outlet	Min. 90% survival of fish after 96 hrs	100% survival of fish observed	Conforms the specified norm
9	FEBRUARY	8.2.2025	Treated effluent of STP	Min. 90% survival of fish after 96 hrs	100% survival of fish observed	Conforms the specified norm
10	FEBRUARY	25.2.2025	Storm water Drain Outlet	Min. 90% survival of fish after 96 hrs	100% survival of fish observed	Conforms the specified norm
11	MARCH	3.3.2025	Treated effluent of STP	Min. 90% survival of fish after 96 hrs	100% survival of fish observed	Conforms the specified norm
12	MARCH	20.3.2023	Storm water Drain Outlet	Min. 90% survival of fish after 96 hrs	100% survival of fish observed	Conforms the specified norm

Note: Treated effluent of ETP is being reused in process for rock grinding in ball mill of PAP Plant.

ANNEXURE-5

INDIAN FARMERS FERTILISER CO-OPERATIVE LIMITED, PARADEEP UNIT

ANALYSIS REPORT OF GROUND WATER FOR THE PERIOD OCTOBER 2024 TO MARCH 2025

	pH			Phosphate as P (mg/l)			Fluoride (mg/l)		
	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG
MONTH	DESCRIPTION: **Test Well no.5** (at the South west side of Gypsum pond))								
Oct-24	6.98	7.29	7.13	0.31	0.68	0.44	0.37	0.64	0.46
Nov-24	7.32	7.60	7.44	0.35	0.42	0.38	0.49	0.55	0.52
Dec-24	7.15	7.27	7.20	0.25	0.42	0.32	0.43	0.61	0.52
Jan-25	7.05	7.47	7.26	0.23	0.41	0.30	0.22	0.37	0.28
Feb-25	6.95	7.20	7.08	0.37	0.53	0.46	0.57	0.70	0.64
Mar-25	7.15	7.27	7.20	0.25	0.34	0.30	0.43	0.61	0.52
Yearly Status	6.95	7.60	**7.22**	0.23	0.68	**0.37**	0.22	0.70	**0.49**
	DESCRIPTION: **Test Well no.6** (at the East side of Gypsum pond)								
	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG
Oct-24	7.05	7.34	7.21	0.27	0.54	0.42	0.33	0.72	0.57
Nov-24	7.10	7.35	7.21	0.32	0.47	0.42	0.39	0.61	0.48
Dec-24	7.18	7.35	7.27	0.28	0.47	0.37	0.39	0.51	0.47
Jan-25	7.22	7.50	7.42	0.18	0.37	0.28	0.21	0.28	0.25
Feb-25	7.20	7.47	7.34	0.33	0.59	0.44	0.49	0.69	0.58
Mar-25	7.18	7.35	7.27	0.28	0.47	0.37	0.39	0.54	0.48
Yearly Status	7.05	7.50	**7.29**	0.18	0.59	**0.38**	0.21	0.72	**0.47**

Annexure - II

HALF-YEARLY COMPLIANCE REPORT

Name of the Project : Expansion of Existing Fertilizer Plant for Manufacturing Nano-Fertilizer, Paradeep Unit located at IFFCO Paradeep Unit

Clearance Letter No and Date : **EC23A016OR195879 dated 14.3.2023 {File No. J-11011/34/1997-IA-II (I)}**

Period of Compliance Report : October 2024 to March 2025

Sl. No.	CONDITION	COMPLIANCE
A	**Specific Condition**	
i	Effective fugitive emission control measures shall be adopted in the process, transportation, packing etc.	Effective fugitive emission control measures are in place during construction of the project. Building Construction is on the verge of completion. Internal roads are made of hard surface. Water sprinkling and maintaining the work area wet during civil work was practiced during the construction phase. Effective fugitive emission control measures shall be undertaken during operation of the plant after commissioning.
ii	The PP shall explore transportation of materials by rail/belt conveyor.	Solid bulk raw materials are received from Paradeep Port through a dedicated cross-country belt conveyor spanning about a distance of 5.5 Kms. At present, there is no rail connectivity to the IFFCO Paradeep Plant site. The nearest rail head with dedicated siding with platform is at about 5 Kms away. Presently bulk fertilizer in bags is transported through both rail and road. The same shall be followed in the case of transportation of Nano fertilizer bottles also.
iii	The PP shall use furnace oil and coal with high calorific value and low ash content which does not lead to increased air emissions.	Noted. Expansion project for NANO fertilizer does not involve any additional power generation unit involving the burning of Fossil fuels. It will draw power from the main Plant, where Power generation is mainly from CPP involving Waste Heat Recovery Boilers attached to Sulfuric acid production units and TG.
iv	The PP shall adopt sectoral Best Available Technology.	Noted. Sectoral Best Available Technology has been adopted.

v	The PP shall develop Greenbelt over an area of at least 40% (851.04) of the proposed project and additional 232.04 acres of green area will be developed, by planting approx. 2,78,400 numbers of saplings within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget of Rs.1136 Lakhs earmarked for the plantation shall be kept in separate account and should be audited annually. The PP should annually submit the audit statement along with proof of activities viz. photographs (before & after with geo-location data & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc.to the Regional Office of MoEF & CC before 1st July of every year for the activities carried out during previous year.	Plantation over an area of 25 acres (involving 25000 saplings) has been completed recently in October – November 2024. Details of expert agency engaged: Indian Farm Forestry Development Cooperative Limited Details of species planted: Casuarina, Acacia, Conocarpus, Karanja & Mangrove. Density of Plantation: 1000 Trees per Acre We are in the process of developing the green belt area in another 30 acres in the second phase with 30000 saplings during monsoon season 2025 (June-October). We have requested the local District Administration and nearby Panchayat Authorities to provide suitable bare land to develop the rest of the green belt area. Avenue plantation as well as greenbelt development has been taken up in many locations on roadside, school campus, along the dyke of the canal etc. Also a good number of saplings are distributed to local village community for plantation in respective areas.
Vi	The transportation load on roads shall be within their carrying capacity and adequate width of roads shall be maintained inside the industrial premises.	Transportation load remains within the allowed carrying capacity of the transporting vehicle. This is judiciously followed by IFFCO. Same shall also be practiced for the expansion project of NANO fertilisers after its commissioning. Main Road width of 15m and branch road width of 7m has been maintained inside the NANO Plant. This width is adequate for movement of trucks in a single file on the road.
Vii	Effluent generated from cleaning of reactor vessels, floor washing & cooling tower shall be treated in ETP & MEE + Stripper system and completely reused within the plant. Domestic sewage shall be treated in STP & reused within the plant for horticultural purposes. ZLD shall be maintained.	Effluent generation load is minimal in NANO Fertiliser Plant. The treated effluent after treatment in ETP & MEE shall be reused and recycled. Domestic sewage shall be treated in STP & reused within the plant for horticultural purposes. ZLD shall be maintained.
Viii	Continuous monitoring system for checking effluent quality/quantity shall be installed in the plant.	Continuous monitoring system for checking effluent quality/quantity shall be installed in the plant after commissioning of the NANO Fertiliser Plant.

Ix	Storm water channel & effluent channel shall be segregated. Effluent channel shall be routed to Effluent Treatment Plant whereas the storm water channel shall be channelized and collected in a pond known as Balancing Pond. Arrangement for lime addition and mixing shall be made in Balancing Pond to take care of any accidental contamination. Pumping arrangement shall be made in the Balancing Pond to transfer balancing pond water to ETP route, which can be reused after treatment.	In the main Fertiliser Plant, there is segregation of Storm water channel & Effluent Channel. The same segregation philosophy is being established in NANO Plant also during construction phase. Like the main Plant, Storm water channel of NANO Plant will also be channelized to the Balancing Pond. Arrangement of lime addition and mixing has been made there in Balancing Pond to take care of any accidental contamination. Pumping arrangements are also made in the Balancing Pond to transfer balancing pond water to ETP route, which is reused after treatment.
x	Fly ash shall be used for the reclamation of lower-lying areas in the plant. Major Hazardous waste shall be stored on impervious floor under well-ventilated covered shed followed by disposal through actual users having authorization from SPCB, Odisha/Disposal in Captive SLF/Common Hazardous Waste Treatment Storage, Disposal Facility (CHWTSDF).	Management of Hazardous wastes generated in the Main Plant are managed according to the 'Hazardous Waste Authorisation by State Pollution Control Board, Odisha under Hazardous and other Wastes (Management and Transboundary Movement) Rules 2016'. No substantial generation of Hazardous Waste is envisaged from NANO Fertiliser Plant. However, after the start of production activity, NANO Fertiliser Plant will be taken under the purview of Hazardous Waste Authorisation by State Pollution Control Board, Odisha.
xi	Spent Ion Exchange containing toxic metals shall be disposed of in HW Incinerator/Co-processing in cement kiln authorized by SPCB, Odisha/Disposal in Captive SLF/CHWTSDF.	There is no provision of a separate water treatment unit for NANO Fertiliser Plant; its water requirement will be catered from the main Plant. Hence generation potential of Spent Ion Exchange Resin is not envisaged in NANO Fertiliser Plant. As described in para-X above, Spent Ion Exchange resin is disposed in Captive SLF as per Hazardous Waste Authorisation issued by State Pollution Control Board, Odisha.
xii	Monitoring the compliance of EC conditions shall be submitted with third party audit every year.	The Environment Laboratory of IFFCO Paradeep Unit is NABL accredited. Third Party audit of Hazardous Waste Management, Captive SLF, performance evaluation of ESP, bag filter, air pollution control devices, online CEMS, AAQMS is carried out by qualified auditors and by reputed institute like IIT/NIT and audit report is regularly submitted to SPCB Odisha. After the start of production activity, the same protocol shall be followed for NANO Fertiliser Plant.

xiii	As Committed, the PP shall allocate Rs.2.53 Crores for CER i.e Infrastructural & Rural Development, Education, Covid19 Expenses, Health, Drinking water, Relief Distribution, Swachha Bharat, Sports, Environment & Plantation, Cultural Activities.	Noted IFFCO takes up all the activities given in this condition through a program called as IRDP i.e. Integrated Rural Development Program. During the previous financial year 2024-25, IFFCO Paradeep Unit has spent around ₹3.0 Crores in the nearby areas for the welfare measures in the fields of Infrastructural Development, Education, Health, Swachha Bharat Abhiyan, Sports, Environment & Plantation, Cultural activities, Reliefs to victims during natural disaster, Drinking Water etc.
xiv	A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage Director- General Manager-Dy.General Manager-Dy.manager-Environment Officer and field operator. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.	Noted. NABL accredited Environment Monitoring Laboratory with qualified professionals are part of the Environmental Management Cell. During project activity in NANO Fertilizer Plant, qualified Safety Officers are deputed round the clock to look after safety of deployed manpower and installed machines. IFFCO Hospital is located near the Project area. Health Officers also visit the project area and extend necessary health care support to the engaged workers.
xv	The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is 2790 Lakh (Capital cost) and 300 Lakh per annum (Recurring cost) shall be kept in separate accounts and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other documents as applicable	Noted. IFFCO comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management and risk mitigation measures relating to the project are also being implemented.

	to the Regional Office of MoEF & CC before 1st July of every year for the activities carried out during the previous year.	
xvi	The total freshwater requirement for Plant after expansion will be 26,140KLD sourced from Taladanda Canal originated from Mahanadi River at Cuttack. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and freshwater withdrawal shall be done only after obtaining valid agreement from the Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.	Noted. IFFCO is having a water drawl agreement with Odisha Water resources department for drawl of 7MGD water from Taladanda Canal which originates from River Mahanadi.
xvii	No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.	Noted. IFFCO undertakes that neither banned chemicals shall be manufactured nor banned raw materials shall be used in the unit. IFFCO shall also adhere to the notifications/guidelines of the Government in this regard.
xviii	The project proponent shall utilize modern technologies for capturing carbon emitted and shall also develop carbon sink / carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.	Noted. It is a practice in IFFCO to take utmost care of the Environment with utilization of latest available technology. Priority is given to develop and protect more and more greenbelts which act as carbon sink.
xix	The project proponent shall comply with the environment norms for 'Fertilizer Industry' as notified by Ministry of Environment, Forest and Climate Change, vide GSR 1607 (E), dated 29.12.2017 under the provisions of the Environment (Protection) Rules,1986.	Noted. Environment norms for 'Fertilizer Industry' as notified by Ministry of Environment, Forest and Climate Change, vide GSR 1607 (E), dated 29.12.2017 under the provisions of the Environment (Protection) Rules,1986 is being complied with for the main Fertiliser Plant and same shall be adhered to for the NANO Fertiliser Plant also.

xx	All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents, The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, storage and import of Hazardous Chemical (MSIHC) Rules, 1989, as amended time to time, and Chemical Accidents (Emergency Planning, Preparedness and Response0 Rules1996.	Noted. Onsite Emergency Plan has been prepared and certified by the Directorate of Factories & Boilers, Government of Odisha from time to time. Offsite Emergency Plan is prepared by the District Administration which is followed judiciously by all the industries of the locality. Mock drills are conducted at regular intervals as per the guidelines given. Mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, storage and import of Hazardous Chemical (MSIHC) Rules, 1989, as amended from time to time, and Chemical Accidents (Emergency Planning, Preparedness and Response0 Rules1996 are in place at IFFCO Paradeep Unit. The same practices shall be followed for the NANO Fertiliser Plant also.
xxi	Proper Ventilation with an adequate air change cycle shall be made for a healthy working environment for the workers. Work Zone monitoring should be done for VOC.	Noted. The new NANO Fertiliser Building shall have HVAC System for maintaining ventilation as well as room temperature. A healthy working environment is also provided in the Main Fertiliser Plant.
xxii	The Plastic Waste Management (Amendment) Rules, 2022 shall be duly complied w.r.t Extended Producer Responsibility (EPR) target as a brand owner.	The Plastic Waste Management (Amendment) Rules, 2022 is duly complied w.r.t Extended Producer Responsibility (EPR) target as a brand owner.
xxiii	The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.	Noted. The manufacturing process of NANO Fertiliser is a clean process, and the generation of VOC and/or Fugitive Emissions is not envisaged. However, monitoring of VOCs shall be carried out after commissioning of the Plant.
xxiv	The project proponent shall explore possibilities for recycling and reusing treated water in the unit to reduce the freshwater demand and waste disposal.	Noted. Recycling and reusing treated water are already in practice at the main fertilizer Plant; the same shall also be followed in the NANO fertilizer Plant.
xxv	For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.	Noted, shall be complied.

xxvi	The storage of toxic / hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.	Noted, shall be complied.
xxvii	The occupational health center for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with the required safety kits/mask for personal protection.	A full-fledged Occupational health center is set up for the main Fertiliser Plant. The same is used for the workers engaged in the construction of NANO Fertiliser Plant. Health checkup is done before issuance of entry passes. All required safety kits and PPEs are provided for the workers.
xxviii	Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measure shall be properly implemented based on the safety and risk assessment studies.	Noted. Shall be complied.
xxix	The unit shall make the arrangement for protection of possible fire hazards during the manufacturing process in material handling. Fire-fighting system shall be as per the norms.	Noted, shall be complied.
xxx	The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakage (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be fireproof. The solvent storage tanks shall be provided with breath valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.	Noted. Shall be complied.

xxxi	The storm water from the rooftop shall be channelized through pipes to the storage tank constructed for harvesting of rainwater in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/any wastewater shall not be allowed to mix with storm water.	Noted.
xxxii	The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c)Use of automated filling to minimize spillage. (d) Use of close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.	Noted IFFCO Paradeep Unit undertake various actions to minimize waste generation, reuse of byproducts, efficient use of water to conserve process water and minimize wastewater generation etc. Some of these actions include the use of high-quality sulphur, use of cesium promoted Vanadium catalyst having longer life, gainful utilization of waste like utilization of Sulphur muck and ETP Sludge as filler in the granulation Plant, reuse of treated effluent for rock grinding in PAP etc. The same philosophy shall be practiced in NANO Fertiliser Plant also after its commissioning.
xxxiii	The activities and the action plan proposed by project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.	Noted and complied.
B	**General Conditions**	
i	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Noted. No further expansion or modifications in the plant are envisaged.

ii	The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency planning, Preparedness and Response) Rule,1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.	Noted IFFCO comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency planning, Preparedness and Response) Rule,1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
iii	The energy source for lighting purposes shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	Noted Energy conservation is given paramount importance in the industrial activities and lighting purposes at IFFCO. Regular Energy audits are carried out and remedial action are taken. Apart from fixing low energy consuming electrical fixtures, priority is given to the generation of energy from renewable sources like solar.
iv	The overall noise levels in and around the plant shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (protection) Act, 1986 Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	Noted The ambient noise levels remain well within the standard. The noise level is monitored in different areas, at source and away from the source in the periphery of Plant. Action deemed fit is also taken wherever noise is monitored to be reaching near the standard.
v	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Noted. Measures for improving socio-economic conditions of the surrounding area are being made by IFFCO through a special program called Integrated Rural Development Program (IRDP). The different activities taken up under the program are decided in consultation with local administration of the area.
vi	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/pollution control measures shall not be diverted for any other purpose.	Noted Adequate funds are made available through prior proper planning to meet the capital cost and recurring cost to implement the conditions stipulated by the Statutory Bodies for environment management/pollution control measures.

vii	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilaa Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal.	Complied. A copy of the clearance letter has been sent to the concerned persons as directed through the given condition.
viii	The project proponent shall also upload/submit six monthly reports on PARIVESH Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Officer of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of environmental Clearance and six-monthly compliance status report shall be posted on the website of the company.	Noted. At present IFFCO Paradeep Unit is complying with the condition. The same shall be followed commissioning of the expansion project of NANO Fertilizer Plant.
ix	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.	Noted. The environmental statement of IFFCO Paradeep Unit for each financial year ending 31st March in Form-V as is mandated are being submitted to the State Pollution Control Board, Odisha. The last environmental statement for the FY 2023-24 was submitted on 3.7.2024. The same shall be followed after commissioning of the expansion project of NANO Fertilizer Plant.
x	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at http://parivesh.nic.in/ . This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region, of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Complied. As directed, the public was informed about “the accord of Environmental Clearance (EC) by MoEF & CC for Expansion of Existing Fertilizer Plant for manufacturing of 33,000Kl per year NANO Fertilizer” through advertisements in newspapers like ‘The Statesman’ (English daily) and ‘The Sambad’ (Odia Daily) on 6.4.2023.

xi	The project authorities shall inform the Regional Office as well as the Ministry of the date of financial closure and final approval of the project by concerned authorities and the date of start of the project.	Noted. Civil construction is in progress. As and when the prescribed benchmarks shall be achieved, information shall be communicated.
xii	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	Noted.

Paradeep
28.5.2025

(P K Mahapatra)
UNIT HEAD