IFFCO
पूर्णतः सहकारी स्वामित्व
Wholly owned by Cooperatives

इंडियन फारमर्स फर्टिलाइजर कोआपरेटिव लिमिटेड
INDIAN FARMERS FERTILISER COOPERATIVE LIMITED

To,

Date: 30.06.2025

Director,
Ministry of Environment, Forest,
Government of India,
Integrated Regional Office (Central Region)
Kendriya Bhawan, 5th Floor, Sector-H, Aliganj,
Lucknow-226024

Subject: Submission of Six-monthly Compliance Report for the period October 2024 to March 2025 of the Environmental/ safeguards conditions stipulated in Environmental clearance granted for the Modernization of Nano Fertilizer Plant Aonla Unit at IFFCO Aonla, Paul Pothen Nagar, P. O. IFFCO Township, District- Bareilly, Uttar Pradesh by IFFCO.

Ref.: F. No. J-11011/430/2005-IA II (I), Dated 02.05.2024

Dear Sir,

We wish to inform you that we have obtained Environmental clearance from MoEF&CC vide F. No. J-11011/430/2005-IA II (I), dated 02.05.2024 for the Modernization of Nano Fertilizer Plant Aonla Unit at IFFCO Aonla, Paul Pothen Nagar, P. O. IFFCO Township, District-Bareilly, Uttar Pradesh by IFFCO.

In this regard, we wish to inform you that, as per the conditions laid down in the Environmental Clearance letter, we are hereby submitting Six-monthly Compliance Report along with all the requisite annexures as per the guidelines of the Ministry of Environment, Forest & Climate Change.

Hope this will meet the requirements.

Thanking you,

Your's faithfully
For IFFCO Aonla Unit

(Satyajit Pradhan)
Sr. General Manager

Encls.: As Above.

CC: (1) Regional Officer, UP Pollution Control Board, 1219/1, E-Block, Rajendra Nagar, Bareilly-243122

(2) Regional Officer, Central Pollution Control Board, PICUP Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow - 226010

आँवला इकाई, पॉल पोथन नगर, पो. आ. इफको टाऊनशिप, जिला बरेली – 243403 (उ. प्र.)
Aonla Unit, PAUL POTHEN NAGAR, P.O. IFFCO TOWNSHIP, Distt. Bareilly - 243403 (U.P.)

bsi ISO 50001 Energy Management CERTIFIED

ISO 9001
ISO 14001
ISO 45001

Unit Head Office : 0581-2404003 Finance : 0581-2404030 Materials : 0581-2404014
Technical : 0581-2404018 Maintenance : 0581-2404012 Utilities : 0581-2404028
Pers & Admn: 0581-2404064 IT Services : 0581-2404010 Transportation : 0581-2404571
Production : 0581-2404004 फैक्स/Fax 91-581-2404227

IFFCO Website : www.iffco.in

IFFCO

Wholly owned by Cooperatives

IFFCO Aonla Unit

SIX MONTHLY COMPLIANCE REPORT

Environmental Clearance No. J-11011/430/2005-IA II (I) dated 02.05.2024

Aonla Unit at IFFCO Aonla, Paul Pothen Nagar, P.O. IFFCO Township, District- Bareilly, Uttar Pradesh - 243403

Submitted By:

IFFCO

Wholly owned by Cooperatives

IFFCO Aonla Unit

INDIAN FARMERS FERTILISER CO-OPERATIVE LIMITED

IFFCO
Wholly owned by Cooperatives
IFFCO Aonla Unit

Name of the Project: Modernization of Nano Fertilizer Plant, Aonla Unit at IFFCO Aonla, Paul Pothen Nagar, P.O. IFFCO Township, District- Bareilly, Uttar Pradesh-243403 by M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO)

EC Identification No.: EC24A1904UP5875849N

Clearance letter no.: J-11011/430/2005-IA II (I) dated 02.05.2024

Environmental clearance letter is attached as **Annexure 1.**

TABLE: 1

1. Specific Conditions		
S. No.	**EC Conditions**	**Compliance Status**
1.1	(i) 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.	We comply regularly 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 implemented with the commissioning of project. Summary of Environmental Measures adopted in the plant are attached as **Annexure-2.**
1.2	(ii) Stack height of 120 m shall be provided to gas fired 150 TPH SG boiler; Stack height of 30 m shall be provided to gas fired GT/HRGS-I; GT/HSRG-II; HRU Ammonia- II; Primary Reformer -I; Primary Reformer -II as per the prescribed limits of CPCB. Stack height of 30 m shall be provided to DG set (2 x 2188 KVA) as per CPCB norms.	Stack height of gas fired 150 TPH SG boiler, GT/HRGS-I; GT/HSRG-II; HRU Ammonia- II; Primary Reformer -I; Primary Reformer -II are 120 m; 30 m, 30 m, 30 m, 30.2 m, 30 m respectively. Stack height of 9.24 m & 22 m have been provided to DG set (2 x 2188 KVA).
1.3	(iii) Fresh water requirement shall not exceed 32707 KLD from groundwater source after modernization.	It is ensured that fresh water requirement shall not exceed 32707 KLD from groundwater source.
1.4	(iv) NOC from the Central Ground Water Authority shall be obtained before start of the construction of plant and drawing water from ground water source. State Pollution Control Board shall not issue the	NOC for the Ground Water Withdrawal has already been obtained from UP Ground Water Department in year 2021. Copy of NOCs for all 16 borewells are attached as **Annexure 3**.

1. Specific Conditions		
S. No.	**EC Conditions**	**Compliance Status**
	Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.	
1.5	(v) Effluent generation from nano urea plant shall not exceed 1 KLD. Effluent shall be treated in Effluent treatment plant and treated effluent shall be recycled/reused. Domestic wastewater shall be treated in the STP and treated wastewater shall be recycled/reused for horticulture purpose.	It is ensured that effluent generation from nano urea plant shall not exceed 1 KLD. Effluent from nano urea plant is treated in ETP cum neutralization tank and treated effluent is reused within the premises for horticulture/gardening purpose. Domestic waste water is treated in Sewage Treatment Plant and treated sewage water is also reused within the premises for horticulture/gardening purpose.
1.6	(vi) As per water balance report, from existing unit, 5675 m3/day to be discharged for horticulture purpose. Treated effluent should be passed through holding tank and for effluents: Online pH, flow, Ammonical Nitrogen, Fluoride should be installed and monitored for the said parameters. PP shall explore recycling/reuse of water in phase manner to reduce the discharge of treated water for horticulture. PP shall use 100 % recycled water of STP for cooling make up water in order to reduce the dependence of fresh water from ground water source. PP shall explore to carry out rain water harvesting within the 10 km study area equivalent to quantity of ground water extraction. PP shall submit action taken report to IRO, MoEF&CC and CPCB every year.	The effluent generated at IFFCO Aonla is always below 5675m^3/day. The effluent generated during upset and shutdown/startup conditions is collected in the effluent pit provided separately in all the plants. Then it is pumped to Effluent Treatment Plant, where it is treated via air/steam strippers. All the treated effluent is kept in two nos. LDPE lined; PCC paved Guard Ponds of capacity 85000m^3 each for equalization. Most of the treated effluent is reused in horticulture and irrigation of green belt, parks, lawns & CORDET farms developed in IFFCO Aonla Complex. Online effluent monitoring system has been installed for the parameters pH, Ammonical Nitrogen and Flow at factory discharge and connected to the CPCB server. Online data are monitored regularly. Photographs of online effluent monitoring system are attached as **Annexure 4**.

1. Specific Conditions		
S. No.	**EC Conditions**	**Compliance Status**
		The efforts are also being made by IFFCO Aonla for the minimization of water consumption as well as wastewater generation by implementing various water conservation measures. Installation of a RO-based Wastewater Treatment Plant of capacity 100 m3/hr is under progress to reduce the discharge of treated water for horticulture. The treated water shall be recycled in the plant as Cooling Tower make-up water. IFFCO Aonla Unit has installed sewage treatment system with MBR-based STP having Primary, Secondary, and Tertiary treatment units. Treated sewage is being fully recycled in the plant as cooling tower make-up water. The exploration of rain water harvesting ponds within the 10 km study area equivalent to quantity of ground water extraction is in process with the help of Ground Water Department.
1.7	(vii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB.	The gaseous emissions from various process units i.e., urea dust from Prill Towers, NO_X & SO_X from Primary Reformer of Ammonia plants/GT-HRU (Ammonia-II)/ Steam Generation plant/ GTG-HRSG Units are regularly monitored and always conform to the prescribed standards. Four numbers ambient air quality monitoring stations have been set up in consultation with U. P. Pollution Control Board. The concentration of PM_{10}, $PM_{2.5}$, SO_2, NO_2 & NH_3 in ambient air are being monitored regularly at all four stations and always remain well below the prescribed standards. The values of gaseous emissions of all stacks and the concentration of PM10, PM2.5, SO_2, NO_2 & NH_3 in ambient air for the period from October 2024 to March 2025 are given in **Annexure 5** and **Annexure 6.**

1. Specific Conditions		
S. No.	**EC Conditions**	**Compliance Status**
1.8	(viii) The green belt has been developed in 184.163 ha (36% of the total plot area with tree density @ 2500 trees per hectares), mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & 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.	A 250-meter wide green belt has been developed between the interface of plant and township and an 80-meter wide green belt has been developed all along the factory and township boundary. For the development of the green belt area, State Forest Department has been consulted for the selection of plants as per CPCB guidelines. A Parampagat swarnjayanti Udyan has been developed in township, where significant efforts are being made toward biodiversity conservation. This is being achieved by planting around 221 traditionally important indigenous species including Desi Mango, Mahua, Kaitha, Badhal, Khirni, Lasoda, Tamarind, that are now rarely planted by public. Miyawaki Forest has been developed in a total 5500 sq, meter area. Over ten thousand tree saplings have been planted including Arjun, Neem, Sheesham, Bakain, Jamun, Silveroak, Amrood, Kanji, Nimbu, Kaner, Chandani and Gudhal. Photographs of Parampagat Swarnjayanti Udyan, Miyawaki Forest and details of species of plants are shown in the **Annexure 7**. During the year 2024-25, a total of 9773 nos. tree saplings of species like Mango, Aloeverra, Amaltas, Guava, Anar, Anjir, Aonla, Arjun, Aru, Ashok, Badam, Baken, Banana, Bargad, Bel, Champa, Chiraunji, Dragan Fruit, Gambhar, Gurmar, Goldmohar, Haran, Heeng, Imli, Jaifal, Jamun, Kaitha, Kaju, Kaner, Kanji, Karanj, Karaunda, Kathal, Khair, Laila Majhanu, Laung, Lichi, Madar, Mahogni, Nashpati, Neem, Nimbu, Orange, Papaya, Popular, Pakad, Rakt Chandan, Ramfal, Ritha, Rohini, Rojwood, Safed Chandni,

1. Specific Conditions		
S. No.	**EC Conditions**	**Compliance Status**
		Safed Musali, Sahtoot, Sagaun, Sahjan, Samudraphal, Sarpgandha, Sharifa, Sheesham, Silai googal, Silver oak, Sterculia, Tejpatta, Tendu, Tulsi etc. have been planted in plant and township. The budget earmarked for the plantation has been kept in a separate account and audited annually. The audited statement for the year 2024-25 along with proof of activities has been attached as **Annexure 8**
1.9	(ix) 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 by engaging Unit Head- GM/DGM Manger (Lab) – Deputy Manager – Assistant manager Engineer lab. 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. The 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 the previous year.	There is a separate Environmental Cell with a well-equipped environmental laboratory for monitoring the environmental parameters in the liquid effluent, gaseous emissions, ambient air and ground water. The cell takes all measures to prevent and control pollution, conservation of natural resources, compliance with environmental rules & regulations and protection of the environment. The cell includes qualified and trained Chemists, Asstt. Manager (Lab) / Dy. Manager (Lab), Manager (Lab), Sr. Manager (Lab), Chief Manager (Lab), Manager (EPC) and Chief Manager (EPC). The cell functions under the direction of the General Manager (Technical). One safety & three health officers are engaged in the plant as per the qualification given in the Factories Act, 1948. The audited statement about the amount spent towards the engagement of qualified persons in EMC for the year 2024-25 has been given in **Annexure:8**
1.10	(x) The company shall comply with all the environmental protection measures and safeguards proposed in the documents	All the environmental protection measures and safeguards have been adopted at IFFCO Aonla Unit to protect the environment. A summary of

1. Specific Conditions		
S. No.	**EC Conditions**	**Compliance Status**
	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 existing EMP Rs. 9636.98lakhs (Capital cost) and 877.22 Lakhs per Annum (Recurring cost)] shall be kept in a separate account 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 document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.	environment protection measures adopted at IFFCO Aonla is given in **Annexure-2.** Risk Analysis of the complex was done in December 2008 by M/s Earth Protection Group Environmental Consultant Pvt. Ltd. Lucknow. Hazop study of the complex was done in September 2009 by M/s Safety Consultancy Services, Banjara Hills, Hyderabad. The annual audited statement of year 2024-25 along with proof of implementation of activities under EMP has been given in **Annexure-8.**
1.11	(xi) All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as ETP sludge shall be either sent to TSDF. Spent catalyst shall be sent to Authorized recyclers. Municipal solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development.	We follow and comply with the rules and regulations of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. The hazardous wastes at IFFCO Aonla unit are spent catalysts, spent lube oil, empty drums, empty bags and ETP Sludge. Spent catalysts, spent lube oil, empty drums, empty bags are recyclable and sold to authorised recyclers whenever generated. Annual return in Form-4 is submitted to UPPCB every year. ETP sludge shall be sent to TSDF whenever generated. Vermi composting plant for the conversion of biodegradable waste material has been installed in IFFCO Aonla Unit and performing well. The household biodegradable and non-biodegradable garbage is collected separately in the separate drums provided to the residents in

1. Specific Conditions		
S. No.	**EC Conditions**	**Compliance Status**
		township. The manure produced is used for greenbelt development.
1.12	(xii) The PP shall utilize modern technologies for capturing of 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.	A carbon Di-oxide Recovery (CDR) Unit has been installed in December 2006 to recover 450 MTPD CO2 from the stack flue gas of the Primary Reformer of the Ammonia-I plant. The recovered CO2 is being utilized for the full conversion of Ammonia to Urea. During the period October 2024 to March 2025, a total of 83078 MT CO2 has been recovered from stack flue gases. **Nano Plant:** The manufacturing process of nano-fertilizer plant is a closed-loop reactor vessel setup with regulated control. Hence, Nano-fertilizers Plant does not contribute to air emissions. No additional Stack is proposed in modernization and expansion. There is no gaseous emission from Nano Fertiliser Unit. The LP Steam available from the Urea/Ammonia Plant being used in Nano Plant. All measures are being adopted during the transportation and handling of Raw Material and Product. Process Flow Diagram of Nano Fertilizer Manufacturing is attached as **Annexure 9.** Fertilizer industry is a vital part of Indian Agricultural system, but because of the substantial amounts of energy and natural gas consumed for the manufacturing processes, fertilizer production is known to have significant environmental impacts throughout the entire cycle of the production stages. The Ammonia and Urea production and transportation plays a significant part in GHG emissions, whereas the production of nano fertilisers (New product) accounts for very less GHG emissions. It clearly indicates that nano fertilisers are not only effective for transportation and handling, but also produces orders of less

1. Specific Conditions		
S. No.	**EC Conditions**	**Compliance Status**
		environmental impacts, making it a more environment-friendly alternative.
1.13	(xiii) The project proponent shall comply with the environment norms for 'Fertilizer Industry' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 1607 (E), dated 29th December, 2017 under the provisions of the Environment (Protection) Rules, 1986.	We are following and complying with the environment norms for 'Fertilizer Industry' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 1607 (E), dated 29th December, 2017under the provisions of the Environment (Protection) Rules, 1986. The treated effluent always conforms to the stipulated standards of MINAS. Test reports are given in **Annexure 5** and **Annexure 6.**
1.14	(xiv) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP 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 Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.	Quarterly inspection of Major Accident Hazardous Installations viz. Ammonia storage tanks, Chlorine storage, and Cl_2 wash system (installed in cooling towers) are being done regularly internally and corrective actions are being taken if any deviation is observed. Safety audit of the complex is being done annually by an external agency and the report is submitted to the Directorate of Factories after complying with the recommendations. Onsite and offsite emergency plan is in place and same is attached as **Annexure-10** We are following and complying with the rules and regulations made under Manufacture, Storage and Import of Hazardous Chemical (MSIHC) Rules, 1989 as amended time to time and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.
1.15	(xv) 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.	Following measures are adopted in the plant to reduce the fugitive emissions: **(1)** De-dusting system has been provided to control fugitive emissions during handling of product. Any Spillage/emission of Urea dust during different activities of urea

1. Specific Conditions		
S. No.	**EC Conditions**	**Compliance Status**
		handling/manufacturing process is being collected by de-dusting system and recirculated within the process after making urea solution. **(2)** A Carbon Dioxide Recovery (CDR) Unit has been installed to recover 450 MTPD CO2 from the stack flue gas of Primary Reformer of Ammonia-I and thus reducing the GHG emission to the atmosphere. **(3)** Purge Gas Recovery (PGR) Unit has been installed to recover Ammonia and Hydrogen from Purge Gases of ammonia plants. The tail gas after the removal of Ammonia and Hydrogen is used as fuel in the Primary Reformer of Ammonia plants. **(4)** The ammonia vapours generated in Ammonia storage tanks are normally diverted to the refrigeration compressor of Ammonia plant. In addition, a separate holding compressor is provided in each ammonia storage tank to take care of ammonia vapours in case ammonia plant is not running. Further, a separate flare stack has been provided in each ammonia storage tank to burn off ammonia vapours in case of any emergency. **(5)** Ammonia gas detectors are installed at sensitive locations in Ammonia Plants, Urea Plants and near Ammonia storage Tanks. **(6)** During upset conditions of Ammonia plant, ammonia vapours and process gases are burnt in Flare stack through a common header. **(7)** In the event of failure of any pollution control device adopted by the unit, corrective measures are being taken and then respective unit is restarted.

1. Specific Conditions		
S. No.	**EC Conditions**	**Compliance Status**
		(8) Automatic weighing and Bagging machine are provided with system to reduce fugitive emission. **(9)** Sensors and detectors are provided at strategic locations for early detection of any leak. **(10)** Regular maintenance of valves, pumps and other equipment are being done to prevent leakages and thus minimizing the fugitive emissions. **(11)** Entire process is carried out in the closed loop with proper maintenance of pressure and temperature. **(12)** Periodic monitoring of work area is being carried out to check the fugitive emission. **(13)** To eliminate chances of leakages from glands of pumps, mechanical seal is provided at all ammonia pumps. **(14)** Routine plant rounds by Production, Maintenance & Technical groups to detect any abnormality in early stage. Pro-active maintenance culture to stop/reduce fugitive emissions due to fault in machinery, leaks or abnormal plant operating parameters. **Nano Plant:** The manufacturing process of nano-fertilizer plant is a closed loop reactor vessel setup with regulated control. Hence, nano-fertilizers plant does not contribute to air emissions. No additional Stack is proposed in modernization and expansion. There is no gaseous emission from Nano Fertiliser Unit.
1.16	(xvi) 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.	The storage of toxic/hazardous raw material shall be kept bare minimum with respect to quantity and inventory in existing Urea Production Plant. It will be followed in Nano fertilizer unit also. The average monthly status of storage of hazardous chemicals in the existing plant (Sulphuric Acid, Hydrochloric Acid, Sodium Hydroxide and

1. Specific Conditions		
S. No.	**EC Conditions**	**Compliance Status**
		Chlorine) are 92 MT, 347 MT, 56 MT and 38 MT respectively.
1.17	(xvii) The occupational health centre 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 required safety kits/mask for personal protection.	An occupational health centre for surveillance of the worker's health is already operational in Plant for round-the-clock (24 X 7) services. Medical and Occupational Health check-up of employees is also done routinely at Rohilkhand Medical College & Hospital, Bareilly. The health data is used in deploying the duties of the workers. All required PPEs are being provided to all workers & employees for personal protection. A fully operative 20-bed Hospital with five qualified doctors is available to deal with any kind of emergency. Photographs and sample health reports are attached as **Annexure 11.**
1.18	(xviii) 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 measures shall be properly implemented based on the safety and risk assessment studies.	• Training is being imparted to all employees as well as contract labours on the safety and health aspects of chemical handling. Visual reality training on the use of fire extinguishers is being provided regularly by F&S Staff. Copy of training schedule & photographs of training programs are attached as **Annexure 12.** • IFFCO has also developed L&D (Learning and Development) Hub which was started keeping specially COVID-19 in mind. To minimize the gathering of employees & contractor's worker, IFFCO made a team of young, experienced & technical employees to shoot videos and upload them on L&D Hub for online health & safety training. • Tool Box Talk or 5 Minutes Safety Talk before commencing of any job is imparted to workers as a safety practices. This includes discussing about Standard procedures (SOPs) to be followed to given job, hazards associated with the job & accordingly use of PPE's (Personal Protective Equipment) to complete the job.

1. Specific Conditions		
S. No.	**EC Conditions**	**Compliance Status**
		Action plan for mitigation measures has been implemented based on safety & risk assessment studies under ISO 45001:2018.
1.19	(xix) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water 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.	Rain water harvesting systems have been constructed in township premises to harvest and recharge rain water into ground in rainy season. Construction of Rain Water Storage Ponds in the Plant is under progress. Harvested rain water shall be used for various industrial processes in the plant. Photographs of Rain Water Harvesting System and Rainwater Storage Ponds are attached as **Annexure 13.** Process effluent/ any wastewater is not being mixed with storm water.
1.20	(xx) 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 vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.	Following measures has been adopted in the plant to reduce waste. (a) The system is in place for metering and control of quantities of active ingredients to minimize waste. (b) A Carbon Dioxide Recovery (CDR) Unit has been installed to recover 450 MTPD CO2 from the stack flue gas of Primary Reformer of Ammonia-I. Recovered CO2 is used in urea production. No by-product is generated during the manufacturing process of urea and Nano Fertilizer which could be used as raw material. (c) Automatic weighing and Bagging machines are provided with the system to minimize spillage. Spilled urea is collected and fully recycled in the system. (d) Close Feed system has been used in the urea reactors. (e) Purge Gas Recovery (PGR) Unit has been installed to recover Ammonia and Hydrogen from Purge Gases of ammonia

1. Specific Conditions		
S. No.	**EC Conditions**	**Compliance Status**
		plants. The tail gas after the removal of Ammonia and Hydrogen is used as fuel in Primary Reformer of Ammonia plants. (f) High-pressure hoses are being used for equipment cleaning to reduce wastewater generation. (g) All the plastic waste generated from the Bottle and Cap manufacturing unit will be recycled after grinding and reused in the bottle and cap manufacturing process. In the normal operation of the Nano Plant, no filled plastic bottles get leaked. However, if a filled bottle gets leaked accidentally; it can't be recycled and such plastic waste generated, if any will be sold / disposed-off to the Registered recycler. Also, Extended Producer Responsibility (EPR) guidelines as per Plastic Waste Management (Amendment) Rules, 2021 shall be followed.
1.21	(xxi) There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places.	Adequate space has been earmarked inside the plant for parking of vehicles for raw materials and finished products and parking is not allowed outside on public places.
1.22	(xxii) Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Chemicals shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. The Air Pollution Control System shall be interlocked with process plant/machinery	Being complied

1. Specific Conditions		
S. No.	**EC Conditions**	**Compliance Status**
	for shutdown in case of operational failure of Air Pollution Control Equipment.	
1.23	(xxiii) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.	Environment awareness rally was conducted at Paul Pothen Nager to stop the use of Single Use Plastic & Polythene Bags in which a large number of township children participated with great enthusiasm. After the rally, township residents were made aware by our Unit Head on the impact of Polythene on nature and human beings. Under Swachchhata Abhiyaan in September, 2024, awareness program was conducted in the vegetable market and bio-degradable bags were distributed to the residents. Photographs of the awareness program on ban on use of single use plastic is attached as **Annexure-14**

TABLE: 2

Standard EC Conditions for (Chemical Fertiliser)		
S. No.	**EC Conditions**	**Compliance Status**
1.1	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, 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.	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. A fresh reference shall be made to the Ministry in case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance.
1.2	The Project proponent shall strictly comply with the rules and guidelines	We are following and complying with the rules and regulations made under Manufacture,

Standard EC Conditions for (Chemical Fertiliser)		
S. No.	**EC Conditions**	**Compliance Status**
	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) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.	Storage and Import of Hazardous Chemical Rules, 1989 as amended in October 1994 and 2000, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016. Quarterly inspection of Major Accident Hazardous Installations viz. Ammonia storage tanks, Chlorine storage, and Cl_2 wash system (installed in cooling towers) are being done regularly internally and corrective actions are being taken if any deviation is observed. Safety audit of the complex is being done annually by an external agency and the report is submitted to the Directorate of Factories after complying with the recommendations. Hazardous wastes generated at IFFCO Aonla are spent catalysts, spent lube oil, empty drums, empty bags and ETP Sludge. Spent catalysts and spent lube oil are kept in sealed covered drums on a cemented platform under a shed in factory premises. Empty drums and bags are cleaned and kept in separate specified areas. These (spent catalysts, spent lube oil, empty drums and empty bags) are recyclable and sold to authorized recyclers. ETP Sludge shall be collected in PVC Drums and shall be sent to TSDF for disposal. Annual return in Form-4 is submitted to UPPCB every year.
1.3	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	The LED-based devices have been installed for lighting purposes. Old high-energy consuming lamps/ ballasts are being replaced with energy-efficient LED lighting fixtures for energy conservation and betterment of environment. LED-based lighting shall be installed in the Nano Plant. A total of 454 MWh of electrical energy saving has been achieved during year

Standard EC Conditions for (Chemical Fertiliser)		
S. No.	**EC Conditions**	**Compliance Status**
		2024-25 by replacement of conventional electrical devices with energy-efficient devices in plant and township.
1.4	The overall noise levels in and around the plant area 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 (day time) and 70 dBA (night time).	The noise levels in and around the plant area are being monitored regularly and maintained well within the standard limits. Acoustic hoods, silencers and ceiling of control room are adopted to control noise in plant area. The ambient noise level also conforms to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989. The report of ambient noise monitoring at different locations in the plant area has been attached as **Annexure 15**.
1.5	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.	Social welfare/community development activities undertaken by IFFCO Aonla Unit in surrounding villages under Integrated Rural Development Programme (IRDP) during October, 2024 to March, 2025 are summarized below: - (i) 04 Nos. Solar Street Lights installed in various villages while installation 25 nos. of Solar Street Lights are under process. (ii) Boundary wall has been constructed in Rani Awanti Bai Lodhi Kanya Inter College, Wazir ganj Road, Aonla. (iii) 50 nos. of Hand Pumps installed in various nearby villeges. Photographs are attached as **Annexure 16.**
1.6	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	Adequate funds have been earmarked for the implementation of conditions stipulated by the Ministry of Environment & Forest/ UPPCB/ CPCB, monitoring of environmental parameters, prevention and control of pollution, conservation of natural resources, compliance

Standard EC Conditions for (Chemical Fertiliser)		
S. No.	**EC Conditions**	**Compliance Status**
	for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.	of environmental rules and regulations and environmental protection.
1.7	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.	A copy of the clearance letter has been sent to Nagar Palika (Town Area) Aonla, Municipal Corporation Bareilly & Sub District Magistrate (SDM), Aonla on 21.08.2024. Copy of the same has been attached herewith as **Annexure 17.**
1.8	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 Office 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.	Six-monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data is submitted regularly to Regional Office of MoEF&CC, respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on IFFCO website.
1.9	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	The environmental statement in Form-V is being submitted regularly to UP Pollution Control Board and Regional Offices of MoEF&CC. It is put on IFFCO website along with the status of compliance of environmental clearance conditions and sent to Regional Office MoEF&CC, Lucknow by e-mail.

Standard EC Conditions for (Chemical Fertiliser)		
S. No.	**EC Conditions**	**Compliance Status**
	respective Regional Offices of MoEF&CC by e-mail.	
1.10	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 https://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.	The information on environmental clearance has been published in one local Hindi newspapers (Hindustan) on 07.05.2024 and in one English newspaper (The Times of India) on 07.05.2024. Copy of the same has been attached herewith as **Annexure 18.**
1.11	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Zero date of the Project: 26 September 2020 Date of financial closure and final approval of the project: 01 March 2023.
1.12	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.

Annexure-1

सत्यमेव जयते

File No: J-11011/430/2005-IA II (I)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division
***

Date **02/05/2024**

To,

Rakesh Puri
INDIAN FARMERS FERTILISER COOPERATIVE LTD
IFFCO Saran, C-1, Court Chowk Rd, Saket District Centre, District Centre, Sector-6, Saket Saket, SOUTH, DELHI, , 110017
iffcofertilizer01@gmail.com

Subject: **Proposed Modernization of Nano Fertilizer Plant, Aonla Unit at IFFCO Aonla, Paul Pothen Nagar, P.O. IFFCO Township, District- Bareilly, Uttar Pradesh- 243403 by M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO) -Grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 -regarding.**

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/UP/IND3/462982/2024 dated 12/03/2024 for grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24A1904UP5875849N
(ii) File No.	J-11011/430/2005-IA II (I)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	5(a) Chemical fertilizers ,5(a) Chemical fertilizers
(vi) Sector	Industrial Projects - 3
(vii) Name of Project	Modernization of Nano Fertilizer Plant, Aonla Unit at IFFCO Aonla, Paul Pothen Nagar, P.O. IFFCO Township, District- Bareilly, Uttar Pradesh- 243403 by M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO)
(viii) Name of Company/Organization	INDIAN FARMERS FERTILISER COOPERATIVE LTD
(ix) Location of Project (District, State)	BAREILLY, UTTAR PRADESH
(x) Issuing Authority	MoEF&CC
(xi) Applicability of General Conditions as per	No

EIA Notification, 2006

3. The Ministry of Environment, Forest and Climate Change has examined the proposal seeking Environmental Clearance for Modernization of Nano Fertilizer Plant, Aonla Unit at IFFCO Aonla, Paul Pothen Nagar, P.O. IFFCO Township, District- Bareilly, Uttar Pradesh- 243403 by M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO).

4. The project/activity is covered under Category 'A' of item 5(a), Chemical Fertilizer industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended).

5. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is an Expansion case **under 7(ii) of** OM dated 11.04.2022. In scenario 5(i) of the said OM, there are requirements of revised EIA/EMP report, CCR and appraisal by EAC. The proposal is placed in this 76th EAC meeting on 28th February, 2024, wherein the PP along with accredited Consultant, M/s EQMS Global Pvt. Ltd, (NABET Accreditation No.: NABET/EIA/2225/RA 0303 Valid Upto- 23.11.2025] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

6. The main product of the unit is Urea and Ammonia is its intermediate product. Now, unit has proposed to change the product formulation and nitrogen content of Nano Urea. The concentration of Nitrogen content in Nano Urea will change to "4 to 20%" of nitrogen content.

7. The PP reported that the Existing land area is **515.16 Ha**. No additional land will be required for proposed modernization and no R& R is involved in the Project. The details of products to be manufactured are as follows:

S. No.	Product	Unit	As per EC & CTO	After Proposed Modernization	Impact
1.	Urea	MTPA	23,26,500	23,26,500	No Change
2.	Ammonia	MTPA	13,20,000	13,20,000	
3.	Captive Power	MW	50 MW	50 MW	
4.	**Nano-Urea (4 to 20% nitrogen content)/ Nano-Sulphur / Nano-Micronutrients**	**KL/ Annum**	**36,500**	**36,500**	**Only change in Specification of Nano Urea Product (Change in product formulation from 4% to 4-20% nitrogen content).**
5.	Plastic Bottles (500 ml)	Lakh /year	730	730	No Change
6.	Plastic Cap (for 500 ml bottles)	Lakh /year	730	730	

8. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under the E(P) Act/Air Act/Water Act.

9. Ministry had issued EC earlier vide letter no **J-11011/430/2005-IA II (I) dated 02.02.2022** for project "**Modernization and Expansion of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer with proposed production capacity of 36500 KLA, located at IFFCO Aonla, Paul pothen Nagar, P.O. IFFCO Township, District – Bareilly, Uttar Pradesh**" by M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO).

10. The PP reported that Certified compliance of the ECs (letter dated 2.2.2022 and 13.3.2006) was issued by IRO, MoEF&CC, Lucknow vide letter dated 01.02.2024. As per the report, all the conditions are complied.

11. The PP reported that there is no Wildlife Sanctuary within 10 km distance from the project site. No, national parks, Biosphere Reserves, Tiger/Elephant Reserves, etc. is present within 10 km distance from the project site. Four Reserved Forest are present at East, South & West Boundary of plant. Aril River is the nearest river flowing at 0.51 km (W) from the project site. *Pavo cristatus* (Indian Peafowl) which is Schedule-I species have been identified in the study area. Conservation plan for the same has been prepared and submitted to CWW for approval.

12. The PP reported that Ambient air quality monitoring was carried out at 8 locations during 1st October 2023 to 31st December 2023 and the baseline data indicates the range of concentrations as PM_{10} (54.5 – 85.2 g/m^3), $PM_{2.5}$ (26.5 – 52.1 g/m^3), SO_2 (6.1 – 15.3 g/m^3) and NO_2 (11.3 –24 g/m^3), NH_3 (31.6 – 43.5 g/m^3) and CO (0.6 – 0.9 mg/m^3). All parameters are within the National Ambient Air Quality Standards (NAAQS).

13. The PP reported that After modernization, there will be requirement of additional 14 KLD of freshwater which will be

suffice by existing supply. The total freshwater requirement will increase from 34150 KLD to 34164 KLD. The water will be met through existing supply i.e., groundwater.

14. There is no generation of effluent from manufacturing process of Nano-fertilizer. However, there is generation of 1 KLD wastewater from washing and operation of cooling tower in the plant along with 9 KLD domestic sewage generated. After proposed modernization, no additional wastewater generation is anticipated. Industrial wastewater generation shall be limited within the existing sanctioned quantity i.e., 5676 KLD. ETP cum neutralization tank for industrial effluent and 10 KLD of STP for domestic effluent has been provided in the nano plant. Treated water is being reused in the internal Horticulture provided in the Nano Plant boundary. In existing plant, Industrial effluent is being treated in the existing ETP, Air stripper, steam stripper & Guard Pond and Domestic effluent in STP installed in Township. Wastewater streams are segregated into two categories i.e., Weak effluent containing – Low Ammonia and Strong effluent containing - High Ammonia. Weak effluent from DM plant and Cooling Tower & Strong effluent from Process is treated in different tanks of ETP and after treatment being collected in two different Guard Ponds. The wastewater generated from Urea plant containing Ammonia and urea is being treated in urea Hydrolyser to recover CO2 and ammonia from wastewater. Recovered Ammonia and CO2 is being reused in the process and treated wastewater is recycled as boiler feed water after polishing in DM Plant. In Ammonia plant, the process condensate stripper has been provided to stripped off the Ammonia, CO2, methanol, etc., and recycled back to the process. Stripped condensate is being used as Boiler feed water make-up after polishing. Most of this treated effluent is being used in horticulture purposes for irrigation of green belt developed in and around the plant & township and remaining /during rainy season treated wastewater is discharged outside.

15. There shall be no change in the power requirement. In existing, the power requirement of the plant & township is 50 MW. Same is being met by Captive power and Grid Supply. The electrical power generated in CPP (Captive Power Plant) is used to fulfill the requirement of entire plant and part of electrical power is also supplied by UPPCL through 132 KV line. For Power backup, DG having capacity of 2 x 2188 KVA are already installed in existing unit. Power requirement for the Nano plant is 2.0 MW. After proposed Modernization, there will be no change in the power requirement. No additional DG set is proposed in the modernization.

16. Existing unit has Natural gas based 150 TPH steam boiler with 120 m stack, 2 x 80 TPH GT/HRSG- I & II with 30 m stack for power plant. No additional Boiler is proposed. Particulate emission is within the statutory limit given by CPCB & UPPCB.

17. **Details of Fuels:**

Type of Fuel	Quantity of Fuel	Source
Natural Gasas Fuel (Nm3/hr)	64487	GAIL
HSD (Run during power failure only) (KL/Annum)	1.1	Local Suppliers

18. **Details of Process Emissions Generation and its Management:**

S. No.	Stack Attached	Fuel Used	APCM	Permissible Limit
1	SG Boiler – 150 TPH	Natural gas	Attached to 120 m stack	-
2	GT/ HRSG -I (Power Plant) – 80 TPH	Natural gas	Attached to 30 m stack	
3	GT/ HRSG-II (Power Plant) – 80 TPH	Natural gas	Attached to 30 m stack	
4	HRU Ammonia- II	Natural gas	Attached to 30 m stack	-
5	Primary Reformer- I	Natural gas	Attached to 30.2 m stack	NOx < 400 mg/Nm^3
6	Primary Reformer- II	Natural gas	Attached to 30 m stack	NOx < 400 mg/Nm^3
7	DG Sets (2 x 2188 KVA)	HSD	Attached to 9.24m & 22 m stack	PM<75 mg/Nm^3 NMHC< 150 mg/Nm^3 CO< 150 mg/Nm^3 NOx< 1100 ppm
Process Stacks / Vents				
1	Prilling Tower-I	-	96 m	PM < 50 mg/Nm^3

2	Prilling Tower-II	-	104 m	PM < 50 mg/Nm^3

19. **Details of Solid waste/ Hazardous waste generation and its management.** There is no change in the quantity of Waste generation after proposed modernization and expansion.

Sr. No	Name of Waste	Source of Generation	Category No. (As per Sch-I&II 2016)	After proposed Modernization-Quantity (MTPA)	Mode of Treatment & Disposal Method
1	Discarded Containers/Bags /Liners	Storage & Handling of Raw Materials	Sch-I/33.3	3000 Nos/ year drums & 100 MT of empty bags	All the discarded drums / containers / bags are collected and stored in Scrap yard. From scrapyard, these are sold to authorized recycler.
2	Used/Spent Oil	Used/Spent Oil	Sch-I/5.1	100.8	Used/spent oil is collected, stored at well identified scrap yard and then disposed by selling to Registered recycler.
3	ETP Sludge	In-house ETP	Sch-I/34.3	0.06	The sludge generated from the Effluent collection pits is being collected, dried and stored within the plant premises in HDPE bags and then disposed-off to TSDF Site through registered transporter.
4	Spent Catalyst	Process	Sch –I/ 18.1	300	Collected and stored in MS drum / HDPE drums, Sold to UPPCB/CPCB approved registered recyclers.
5	Plastic Waste**	Bottle Manufacturing Plant	-	25 MTPA	Recyclable waste is sold off to authorized Recycler.

20. The capital cost and recurring cost earmarked towards the existing Environmental Management Plan (EMP) is 9636.98 Lakhs (capital) and about 877.22 Lakhs per annum. Industry proposes to allocate Rs. 0.5 Crores towards Corporate Environment Responsibility i.e. Installation of Hand Pumps, Solar Lights, Support with Building materials to Schools for construction of Classrooms and Toilets, Community Halls etc. Other facilities / activities as required by local authorities.

21. Industry has already developed greenbelt in an area of 36% i.e., **184.163 Ha** out of total area of the project.

22. The PP reported that the Project being applied under para 7(ii) of EIA Notification, 2006, public consultation is exempted for the project.

23. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environmnet officials for the functioning of EMC.

24. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

25. No major additional cost under proposed modernization is envisaged as the change in raw material mix for Nano urea with change in product profile of Nano urea is proposed without any change in capacity or plant configuration. Total Employment in the plant is approx. 2426 persons during operation phase. No further increase in employment is proposed.

26. **Deliberations by the EAC**

During deliberations, EAC discussed the following issues:

PP has submitted revised water balance and reduced the fresh water requirement from 34164 KLD to 32707 KLD. As per water balance report, PP has proposed 5675 m3/day to be discharged for horticulture purpose. The Committee felt that PP shall explore recycling/reuse of water in phase wise manner to reduce the discharge of treated water for horticulture. PP shall use 100 % recycled water for cooling make up water in order to reduce the dependence of fresh water from ground water source. PP shall carry out rain water harvesting within the 10 km study area equivalent to quantity of ground water extraction. PP shall submit action taken report to IRO, MoEF&CC and CPCB every year.

The committee was satisfied with the response provided by PP on above information.

The EAC constituted under the provisions of the EIA Notification, 2006 comprising expert members /domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The EAC noted that the EIA reports are in compliance with the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The EAC deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during the implementation also of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The expert members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

27. Based on the proposal submitted by the PP and recommendations of the EAC (Industry-3 Sector), the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance for ***"Proposed Modernization of Nano Fertilizer Plant, Aonla Unit at IFFCO Aonla, Paul Pothen Nagar, P.O. IFFCO Township, District- Bareilly, Uttar Pradesh- 243403 by M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO)."*** under the provisions of the EIA Notification 2006 and its subsequent amendments therein, subject to compliance of the Specific and General terms and conditions as mentioned at **Annexure-1**. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

28. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.

29. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

30. The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.

31. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

32. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

33. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

34. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

35. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.

36. This issues with the approval of the Competent Authority.

Copy To

1. Deputy Director General of Forests (C), Integrated Regional Office, Lucknow, Kendriya Bhawan, 5th Floor, Sector-H, Aliganj, Lucknow-226020
2. The Principal Secretary, Environment, Forest and Climate Change Department, Government of Uttar Pradesh, Aranya Vikas Bhawan, 21/475, Indira Nagar Lucknow
3. Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi - 32
4. The Member Secretary, Uttar Pradesh Pollution Control Board, Building. No. TC-12V, Vibhuti Khand, Gomti Nagar, Lucknow-226 010
5. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
6. The District Collector, District **Bareilly**, Uttar Pradesh
7. Guard File/Monitoring File/Website/Record File/Parivesh portal

Annexure 1

Specific EC Conditions for (Chemical Fertilizers)

1. Specific

S. No	EC Conditions
1.1	(i) 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.
1.2	(ii) Stack height of 120 m shall be provided to gas fired 150 TPH SG boiler; Stack height of 30 m shall be provided to gas fired GT/HRGS-I; GT/HSRG-II; HRU Ammonia- II; Primary Reformer -I; Primary Reformer -II as per the prescribed limits of CPCB. Stack height of 30 m shall be provided to DG set (2 x 2188 KVA) as per CPCB norms.

S. No	EC Conditions
1.3	(iii) Fresh water requirement shall not exceed 32707 KLD from groundwater source after modernination.
1.4	(iv) NOC from the Central Ground Water Authority shall be obtained before start of the construction of plant and drawing water from ground water source. State Pollution Control Board shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
1.5	(v) Effluent generation from nano urea plant shall not exceed 1 KLD. Effluent shall be treated in Effluent treatment plant and treated effluent shall be recycled/rused. Domestic wastewater shall be treated in the STP and treated wastewater shall be recycled/reused for horticulture purpose.
1.6	(vi) As per water balance report, from existing unit, 5675 m3/day to be discharged for horticulture purpose. Treated effluent should be passed through holding tank and for effluents: Online pH, flow, Ammonical Nitrogen, Fluoride should be installed and monitored for the said parameters. PP shall explore recycling/reuse of water in phase manner to reduce the discharge of treated water for horticulture. PP shall use 100 % recycled water of STP for cooling make up water in order to reduce the dependence of fresh water from ground water source. PP shall explore to carry out rain water harvesting within the 10 km study area equivalent to quantity of ground water extraction. PP shall submit action taken report to IRO, MoEF&CC and CPCB every year.
1.7	(vii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB.
1.8	(viii) The green belt has been developed in 184.163 ha (36% of the total plot area with tree density @ 2500 trees per hectares), mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & 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.
1.9	(ix) 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 by engaging engaging Unit Head- GM/DGM Manger (Lab) – Deputy Manager – Assistant manger Engineer lab. 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. The 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 1 st July of every year for the activities carried out during the previous year.
1.10	(x) 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

S. No	EC Conditions
	project shall be implemented. The budget proposed under existing EMP Rs. 9636.98lakhs (Capital cost) and 877.22 Lakhs per Annum (Recurring cost)] shall be kept in a separate account 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 document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.
1.11	(xi) All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as ETP sludge shall be either sent to TSDF. Spent catalyst shall be sent to Authorized recycelers. Municipal solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development.
1.12	(xii) The PP shall utilize modern technologies for capturing of 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.
1.13	(xiii) The project proponent shall comply with the environment norms for 'Fertilizer Industry' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 1607 (E), dated 29 th December, 2017under the provisions of the Environment (Protection) Rules, 1986.
1.14	(xiv) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP 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 Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.
1.15	(xv) 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.
1.16	(xvi) 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.
1.17	(xvii) The occupational health centre 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 required safety kits/mask for personal protection.
1.18	(xviii) 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 measures shall be properly implemented based on the safety and risk assessment studies.
1.19	(xix) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water 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

S. No	EC Conditions
	effluent/ any wastewater shall not be allowed to mix with storm water.
1.20	(xx) 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 vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.
1.21	(xxi) There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places.
1.22	(xxii) Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Chemicals shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
1.23	(xxiii) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority

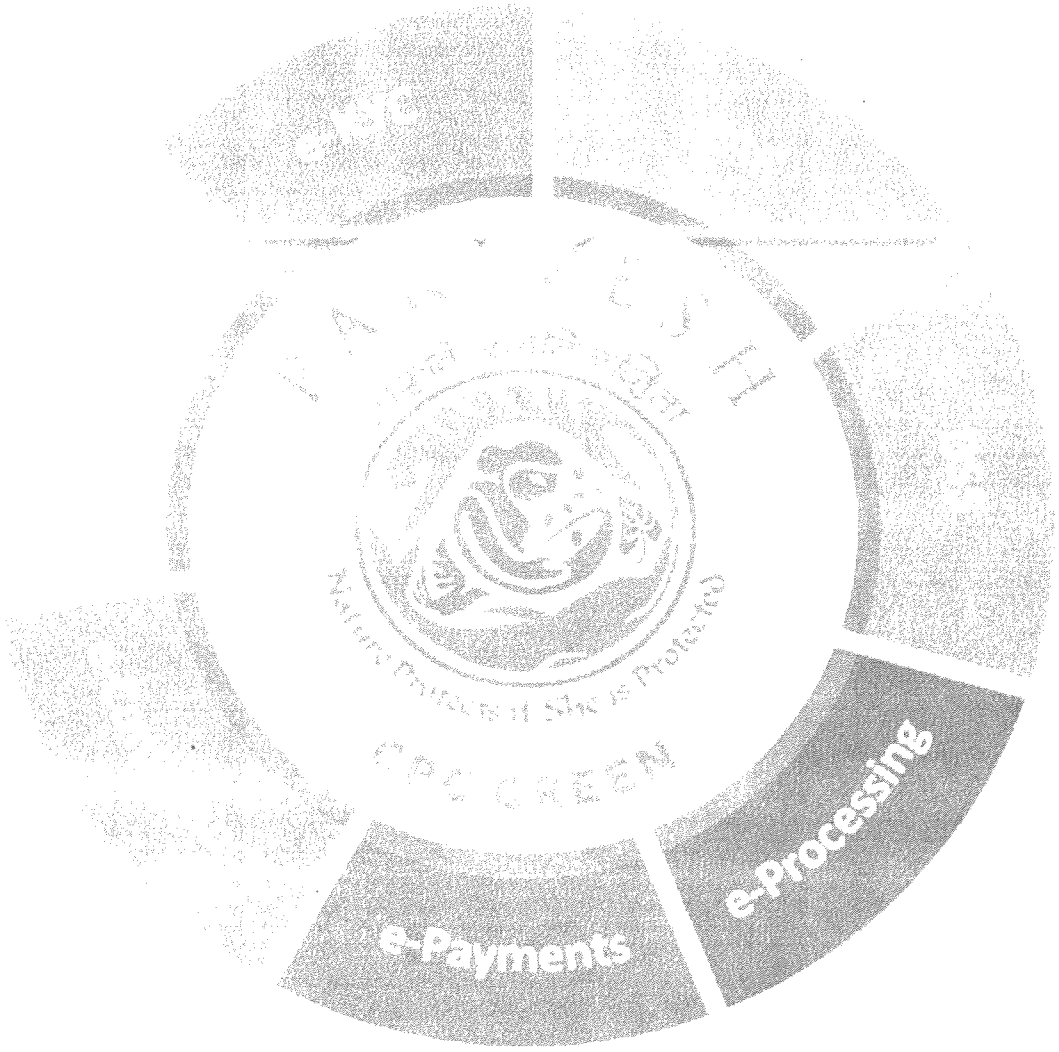
Standard EC Conditions for (Chemical fertilizers)

1.

S. No	EC Conditions
1.1	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, 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.
1.2	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) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
1.3	The energy source for lighting purpose shall be preferably LED based, or advanced having

S. No	EC Conditions
	preference in energy conservation and environment betterment.
1.4	The overall noise levels in and around the plant area 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 (day time) and 70 dBA (night time).
1.5	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.
1.6	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.
1.7	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
1.8	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 Office 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.
1.9	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.
1.10	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 https://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.
1.11	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
1.12	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.

Additional EC Conditions
N/A



Validity unknown
Digitally Signed by : Mr A N Singh
Member Secretary, MoEFCC (EC)
Date: 02/05/2024

IFFCO
Wholly owned by Cooperatives

Annexure-2

ENVIRONMENTAL MANAGEMENT SYSTEM AT IFFCO AONLA

IFFCO Aonla Unit has always been a front-runner in 'Green Revolution' and takes pride in implementing quality environmental initiatives and practices in its activities. These concepts inculcate improvement through fresh initiatives and review of the existing practices on environmental issues.

Aonla Unit strives for excellence in quality of life through its philosophy of maintaining ecological balance and responding sensitively to the needs of the community and comply all regulatory legal requirements. Implementation of Environmental Management System (EMS) at IFFCO Aonla Unit has enabled the organization for efficient utilisation of resources and minimization of waste generation.

The knitting of production with environmental protection is the unique feature of the Aonla Unit. The technology of the plant is based on recycling and reuse concepts. However, to make it foolproof, an effluent treatment plant (ETP) has been provided to treat effluent and waste water generated during upset conditions of the plants. The treated waste water is collected in 02 nos. of Guard-Ponds of the capacity of 85,000 m^3 each. Approx. 65% of treated effluent is used in irrigation of green belt and lawns developed in plant and township.

ENVIRONMENT MANAGEMENT

Management of the environment confers the utilization of resources prudently so that waste generation is minimized. Environmental management is focused on the following facts:

- The selection of technology is based on the zero-effluent concept and recycling & reusing the waste generated in the main plants.
- Abatement of pollution at the source of generation.
- The systematic approach towards Total Environmental Management along with production process, water conservation, adequate treatment technology, on-line monitors in the process, safe disposal of wastes, air and water quality monitoring, regular analysis of treated effluent, etc.
- Built-in safety logics and guards in the plant operations and safe shut down and start-ups.
- Maximum reuse of treated waste water in the irrigation of Parks, Lawns, CORDET Farms & green belt developed in the campus.
- Awareness and training of employees on environmental issues and safe environmental practices.
- Use of eco-friendly, Non-chromate based corrosion inhibitors in cooling water treatment, thus avoiding the generation of solid hazardous waste.

POLLUTION ABATEMENT TECHNIQUES & FACILITIES

PROCESS CONDENSATE OF AMMONIA PLANTS (TREATMENT & RECYCLE)

The Process Condensate from Ammonia Plant is stripped off in Process Condensate Stripper (PCS) provided separately in both the ammonia plants, wherein dissolved impurities like methanol, ammonia and CO_2 are stripped off with the help of LP Steam in Ammonia–I and MP Steam in Ammonia – II. The stripped Process Condensate is reused as Boiler Feed Water after polishing in Water Treatment Plant.

PROCESS CONDENSATE OF UREA PLANTS (TREATMENT & RECYCLING)

The Process condensate from urea plants containing Ammonia and Urea as contaminants is first treated in distillation tower wherein its ammonia is distilled, condensed and reused in the process of urea production. Remaining condensate containing urea as impurity is heated in the preheater and hydrolyzed into ammonia and CO_2 in Urea Hydrolyser provided separately in both the urea plants. It is again treated in distillation tower. The ammonia and CO_2 are recovered and reused in the plant as feed. The remaining condensate containing <10 PPM Ammonia and <1 PPM Urea from the distillation column, is reused as Boiler Feed Water after polishing in Water Treatment Plant.

All CO2 Compressor Inter Stage Separator condensate, Seal condensate outlet, VAM condensate, etc. are recovered in the wastewater section in Urea Plants and reused as Boiler Feed Water after treatment.

POLISHING OF STEAM AND TURBINE CONDENSATES

The steam condensate from all the Ammonia & Urea plants and turbine condensate from both urea plants is pumped to two nos. of Return Condensate Storage Tank (RCST) provided in the water treatment plant. Here, its traces of impurities are removed in polisher units and reused as Boiler Feed Water. The turbine condensate from both Ammonia plants is treated in A. C. Filtration & Mechanical Filtration units provided in both Ammonia plants and reused as Boiler Feed Water.

Recycling of CDR Plant waste water as Cooling Tower make-up

Neutralized waste water & Strainer back wash water of Carbon Di-Oxide Recovery Plant are being recycled as Cooling Tower make-up water.

BOILER BLOW DOWN

The Boiler Blow Down from the boilers is flashed in Blow down vessel, wherein LP Steam is generated and reused in the plants. The remaining boiler blow down is reused as Cooling Water Make-up.

DISC OIL SEPARATOR

The oil containing water and spilled oil from the compressor houses of the plants are collected in Disc Oil Pit provided separately in all ammonia and urea plants, wherein oil and water get separated based on the differences in their densities. Oil settles at the top and water at the bottom.

The oil is collected through a rotating disc and taken in a slop oil tank from where it is taken in empty oil drums. The remaining water free from oil is sent to ETP for further treatment along with other wastewater. A part of this reclaimed oil is used in the lubrication of machines and the balance is stored in sealed drums on a cemented platform and sold to recyclers having authorization from CPCB.

NEUTRALISATION PIT IN DM PLANT

The Acidic and Alkaline wastewater generated due to the regeneration of exhausted cation and anion resins in the water treatment plant is collected in the neutralization Pit. It is used in the scrubbing of acid fumes. It is then mixed with cooling tower blowdown in ETP and after pH correction, reused for horticulture purposes.

ECO-FRIENDLY NON-CHROMATE COOLING WATER TREATMENT

Non-chromate-based corrosion inhibitors are being used in the treatment of cooling water in all four cooling towers. Thus no hazardous solid waste i.e. chromate sludge is generated.

The Cooling tower blow down is mixed with wastewater coming from the Neutralization Pit of the Water Treatment Plant in receiving chamber of the pH Correction Scheme in the Effluent Treatment Plant. The pH of this water is maintained within 6.5 – 8.5 (MINAS) and stored in Lagoons. It is reused for horticulture purposes.

EFFLUENT TREATMENT PLANT

Occasional waste water containing ammonia as an impurity, generated during upset and startup/shutdown of the plants is collected in the effluent pit provided separately in all the plants, from where it is pumped to Effluent Treatment Plant for the treatment. The ammonia is stripped off through air/steam strippers after passing through sand filters.

The treated waste water is collected in two nos. of LDPE-lined, PCC paved lagoons (Guard-Ponds/Equalization Ponds) of capacity 85,000m^3 each at the terminal end of ETP.

Approx. 65% of treated effluent is being used for horticulture purposes and irrigation of green belt developed in and around the plant & township and remaining is let out to river Aril.

SEWAGE TREATMENT PLANT:

For the treatment & recycle of domestic waste water, IFFCO Aonla Unit has upgraded the sewage treatment system with MBR-based STP having Primary, Secondary, and Tertiary treatment units. Treated sewage is being fully recycled in the plant as cooling tower make-up water.

AIR POLLUTION CONTROL

CLEAN FUEL USED

The fuel used in IFFCO Aonla Unit is Natural Gas having a very low concentration of "Sulphur" i.e. in the range of 1-2 ppm. Hence, SOx in flue gases remains "Traces". The stacks/chimneys have sufficient height for effective and harmless dispersion of plumes through 120 Meter for service boilers and 30 M for GT Generators and Primary Reformers.

PRILL TOWER DUST EMISSION

The Prill towers of Urea plants are based on the natural draft and have a height of 96 and 104 meters and diameter of 28 meters and 26 meters respectively for the effective and harmless dispersion of plumes. The height of stacks and chimneys are designed as per EP Act, 1986. Urea dust in the exhaust of the Prill Tower always remains well within the permissible limits.

AMMONIA STORAGE AND HANDLING SYSTEM

Ammonia is stored in two atmospheric Ammonia storage tanks of a capacity of 10,000 MT each. These tanks are cylindrical, double wall and double integrity type. The ammonia storage tanks are designed fabricated and erected by M/s Toyo Engineering Corporation, Japan and have all inbuilt safety measures.

CARBON DIOXIDE RECOVERY UNIT

A carbon Di-oxide Recovery (CDR) Unit has been installed in December 2006 to recover 450 MTPD CO_2 from the stack flue gas of the Primary Reformer of the Ammonia-I plant. The recovered CO_2 is being utilized for the full conversion of Ammonia to Urea. The recovered CO_2 has improved the ambient air quality and has reduced CO_2 emission to the atmosphere.

During the period October 2024 to March 2025, a total of 83078 MT CO_2 has been recovered from stack flue gases.

ENVIRONMENTAL MONITORING

IFFCO Aonla Unit has a well-equipped laboratory using a large array of instruments. The quality of treated effluent, ambient air, stack flue gases, prill tower urea dust emission and storm-drain water is checked regularly by our trained and well-qualified staff. Monitoring of discharge, emissions, ambient air and ground water quality is being done on a quarterly basis by the U.P. Pollution Control Board/Ministry of Environment & Forest authorized laboratory. On-line O_2 analyzers have been provided in stacks for monitoring the complete and efficient combustion of the fuel in the furnaces.

All water/air pollution control devices in the plants are being maintained in perfectly good condition. Their performances viz. Plant process parameters and the quality of intermediate products are being monitored continuously in our own laboratory.

ONLINE MONITORING SYSTEM FOR EFFLUENT & EMISSION

An online monitoring system has been installed at IFFCO Aonla Unit for effluent quality & flow and connected to CPCB server http://rtdms.cpcb.gov.in/industry-status? An online emission monitoring system for urea dust (PM) was installed at one Prill Tower on trial basis as per CPCB directions. The trial of the system was unsuccessful.

MANAGEMENT OF HAZARDOUS WASTES

The hazardous wastes generated at IFFCO Aonla Unit are Spent Catalyst and Spent Lube Oil (generated only as and when exchanged or replaced). These are stored in seal-covered drums on the cemented platform under a shed in plant premises and sold to authorized recyclers having authorization from CPCB.

STATUTORY COMPLIANCES

IFFCO Aonla Unit is regularly getting approvals of Water & Air consents; Hazardous waste & Bio-Medical Waste Authorizations from U. P. Pollution Control Board and NOC for ground water withdrawal from UP Ground Water Board. We comply with all the conditions of all the consents and authorizations. Pre and Post monsoon ground water monitoring is being done as per CPCB guidelines.

SOLID WASTE MANAGEMENT

IFFCO Aonla Unit has installed a "VERMI COMPOSTING PLANT" in IFFCO Township for the safe disposal of household/canteen garbage and horticulture wastes. In this system, the garbage of the township and plant canteen is separated into biodegradable and non-

biodegradable garbage in separate drums at the point of generation and collected by the authorized person separately.

The biodegradable garbage along with the horticulture waste from township and plant is decomposed with the help of "Vermi Worms" and is converted into a vermi-compost. The non-biodegradable material is collected separately in a pit and it is being sold to the recyclers.

This system has solved the garbage disposal problem as well as it produces valuable manure called vermi compost. This is being utilised in horticulture and agriculture activities. Thus making a national wealth and the township is kept "Neat and Clean Township".

GREEN BELT DEVELOPMENT

The site was completely barren land having soil with high alkalinity. In the initial stages, complete site soil was treated along with Gypsum, Sweet soil and Cow dung manure. Then, a 250-meter wide green belt has been developed between the interface of plant and township and an 80-meter wide green belt all along the factory and township boundary. It is being irrigated by the treated effluent. A large network of the pipeline has been installed in different areas of Plant & Township for the reuse of treated Plant waste water in irrigation of Green Belt, Plantation areas, Parks, Lawns & CORDET farms.

There are approximately 2.0 Lakh trees of different species in plant and township. During the year 2024-25, a total of 9773 nos. tree saplings have been planted in plant and township. To boost the social forestry, saplings of trees are also developed in our own nursery and these saplings are distributed in surrounding villages and township residents free of cost.

RAIN WATER HARVESTING SYSTEMS

For the conservation of water, seven Roof-top Rain Water Harvesting Systems installed at GET Hostel, Kendriya Vidyalaya/Tiny Tots School, Hospital, Guest House/New Club, Anand Bhawan Club, Open Air Theatre & Administration Building are in operation in IFFCO Aonla. Two Rain Water Harvesting Systems have been installed for underground recharge of rain water of storm drains in the township.

ENVIRONMENT MANAGEMENT PLAN

The knitting of production with environment protection is the unique feature of Aonla Unit. The technology of the plant is based on recycle and reuse concepts. Management of environment confers the utilization of resources prudently so that waste generation is minimized. The environmental management is focused on the following facts:

- The selection of technology is based on Zero-effluent concept and recycling and reusing the waste generated in the main plants.
- Abatement of pollution at the source of generation
- Systematic approach towards Total Environmental Management along with production process, water conservation, adequate treatment technology, on-line monitors in the process, safe disposal of wastes, air and water quality monitoring, regular analysis of treated effluent, etc.,
- Built in safety logics and guards in the plant operation and safe shut down and starts ups.
- Maximum reuse of treated wastewater in the irrigation of green belt developed in the campus.
- Awareness and training of employees on environmental issues and safe environmental practices.
- Use of eco-friendly, non-chromate base corrosion inhibitors in cooling water treatment, thus avoiding generation of solid hazardous waste.
- An effluent treatment plant (ETP) has been provided to treat effluent and wastewater generated during upset conditions of the plants. The treated wastewater is collected in 02 nos. of Guard-Ponds Of capacity of 85,000 m3 each.

At present IFFCO manufacturing plant is already operating in this plot. Considering the market demands, IFFCO is planning to produce Nano Fertilizer in the existing plant. Since the site utilities are already developed, limited construction/installation is associated with the project. A detailed environmental management plan for each activity of construction/installation and operation phases are prepared. EMP lists the activities involved along with environmental impacts associated with each activity, suggestive impact mitigation measures, and implementation plan covering monitoring and supervisory responsibilities. The environmental management plan is included in **Table 10.1**.

Table 1.1 Environment Management Plan during Operational Phase

S. No.	Environmental Component	Management	Applicable Norms
1.	Air	• Due to endothermic nature of formulation reaction of Nano-Urea/Nano-Sulphur/Nano-Micronutrient and production of stable nanocluster of nano fertilizer, there is no such air emissions. • All the exhaust of Prilling Towers are provided with the appropriate stack height to maintain the emission norms given by the UPPCB. • Dust Extraction system are installed in the plant to reduce the fugitive emission and recover Urea. • Complete combustion of fuel in primary reformer is envisaged. Complete combustion of fuel is also ensured by on-line Oxygen analyzers. • The fuel used in the Primary Reformer and Gas Turbine is Natural Gas containing "Sulphur" approximately 0.001% (10 ppm max.), causing negligible SOx emissions. • The stack height of S.G. Boiler is kept at 120 meter and stack heights of HRSG/Gas Turbine Generator are kept at 30 meter to maintain ground level concentration of pollutants within the prescribed limits. • CO_2 recovery plant is installed in plant to tap CO_2 from flue gases to increase urea production and reduce CO_2 emission. • In the event of failure of any pollution control device adopted by the unit, corrective measures are being taken and then respective unit is restarted. • The gaseous emissions from various process units i.e., urea dust prill towers, NOx and Sox from primary reformers of Ammonia plant/GT-HRU (Ammonia-	• Air Act (Pollution Prevention & Control), 1981 • MoEF&CC notification- G.S.R. 1607 (E) dated 29.12.2017 & The Environment (Protection) Rules, 1986

S. No.	Environmental Component	Management	Applicable Norms
		II)/steam generation plant/GTG-HRSG units are regularly monitored and always conform to the prescribed standards. • The ammonia vapours generated in Ammonia storage tanks are normally diverted to the refrigeration compressor of Ammonia plant. In addition, a separate holding compressor is provided in each ammonia storage tank to take care of ammonia vapours in case ammonia plant is not running. Further, a separate flare stack has been provided in each ammonia storage tank to burn off ammonia vapours in case of any emergency. During upset conditions of Ammonia plant, ammonia vapours and process gases are burnt in Flare stack through a common header. • Preventive measures like SOP, Work Permit System, and Physical inspection / Monitoring of equipment are taken to eliminate the chance of accident on account of explosion, spillages, fire or hazardous substances etc. • The finished product is being transported through Rail and trucks. The rail yard exists within the plant for transportation of finished product. • Automatic weighing and Bagging machine are provided with system to reduce fugitive emission. • Any Spillage/emission of Urea dust during different activities of urea handling/ manufacturing process is being collected by de-dusting system and recirculated within the process after making urea solution. • All trucks with are transported after proper covering from the top.	

S. No.	Environmental Component	Management	Applicable Norms
		• Regular maintenance of valves, pumps and other equipment are being done to prevent leakages and thus minimizing the fugitive emissions of VOCs. • Routine plant rounds by Production, Maintenance & Technical groups to detect any abnormality in early stage. Pro-active maintenance culture to stop/reduce fugitive emissions due to fault in machinery, leaks or abnormal plant operating parameters. • Good housekeeping, proper maintenance and continuous observation prevents the chances of any fugitive emission from the process plant. • PPE is provided to all labour. • EMC cell is developed in the plant for compliance of all associated norms.	
2.	Noise	• Boundary wall of 3m all around the project site and wide green belt is already provided. The same will reduce the noise level. • PPE is being given to labour. • Earmuffs are being used while in high noise areas. Separate cabins are provided. • Acoustical Enclosures and Mufflers are provided at all required locations. • Proper and timely maintenance of machineries and preventive maintenance of vehicles is being done. • Important Instructions are displayed all over the plant area. • Regular Noise monitoring is being done to check the noise level and implement corrective action in case of high noise.	• Noise Pollution (Regulation and Control) Amendment Rules, 2017

S. No.	Environmental Component	Management	Applicable Norms
3.	Water	• For Nano plant, separate Effluent Treatment System (ETS) of capacity 1 KLD cum neutralization tank for treatment of Reactor Wash / Floor wash and STP (Capacity- 10 KLD) for domestic wastewater has been installed in the plant. • The wastewater generated from Urea plant containing Ammonia and urea is being treated in urea Hydrolyser to recover CO_2 and ammonia from wastewater. Recover Ammonia and CO_2 is being reused in the process. • In Ammonia plant, the process condensate stripper has been provided to stripped off the Ammonia, CO_2, methanol, etc. and recycled back to the process. Stripped condensate is being used as Boiler feed water make-up after polishing. • Wastewater streams are segregated into two categories i.e., Weak effluent containing – Low Ammonia and Strong effluent containing - High Ammonia. Weak effluent from DM plant and Cooling Tower & Strong effluent from Process is treated in different tanks of ETP and after treatment being collected in two different Guard Ponds. • In existing plant, Industrial effluent is being treated in the existing ETP, Air stripper, steam stripper & Guard Ponds. • Domestic waste water is treated in MBR based Sewage Treatment Plant having Primary, Secondary, and Tertiary treatment units. Treated sewage water is being fully recycled in the plant as cooling tower make-up water. • Online monitoring instruments for measurement of pH, flow and ammonical	• Water Act (Pollution Prevention & Control), 1974 • MoEF&CC notification- G.S.R. 1607 (E) dated 29.12.2017 & The Environment (Protection) Rules, 1986

S. No.	Environmental Component	Management	Applicable Norms
		nitrogen at the discharge line of ETP have been installed and connectivity has been established with CPCB Servers. • Separate storm water and effluent line is already provided in the plant. • Plant is maintaining all standards laid down by MoEF&CC and UPPCB. • Regular monitoring of effluent is being done at site.	
4.	Waste	• Industrial Hazardous wastes generated at IFFCO Aonla are spent catalysts, spent lube oil, empty drums, empty bags and ETP Sludge. Spent catalysts and spent lube oil are kept in sealed covered drums on a cemented platform under a shed in factory premises. Empty drums and bags are cleaned and kept in separate specified areas. These (spent catalysts, spent lube oil, empty drums and empty bags) are recyclable and sold to authorized recyclers. • Other solid wastes are segregated at the source of generation. Recyclable solid wastes are sold to recyclers, and non-recyclable solid wastes are disposed as per norms. • Waste is packed in ISO approved drums/HDPE bags and as per the specifications of internationally approved vendor. All measures are taken to avoid littering. • The municipal solid waste is being segregated in biodegradable waste and recyclable waste. Recyclable waste is being sold off to authorized vendors. Biodegradable waste is being treated in Vermi-composting. • Separate paved storage area for Hazardous/Non-Hazardous/Municipal is	• Construction & Demolition Waste (Management & Handling) Rules, 2016 • Solid Waste Management Rules, 2023 • Hazardous & Other Waste (Management and Transboundary Movement) Amendment Rules, 2023 • Plastic Waste Management (Amendment) Rules, 2023 • E-Waste (Management) Rules, 2023 • Battery Waste Management Rules, 2023 • Bio-medical Waste

S. No.	Environmental Component	Management	Applicable Norms
		provided within the plant area. • Bio-medical waste from Health centre is being given to approved Biomedical waste handler. • All the plastic waste generated from Bottle and Cap manufacturing unit are being recycled after grinding and reused in bottle and cap manufacturing process. However, few of the plastic waste generated from Bottle Manufacturing Unit and same cannot be used as raw material. All plastic waste materials are being sold / disposed-off to Registered recycler. Also, Extended Producer Responsibility (EPR) guidelines as per Plastic Waste Management (Amendment) Rules, 2023 is followed.	Management Rules, 2016
5.	Land/Soil	• All UPPCB/MoEF&CC norms are maintained during the use of ETP treated water in horticulture. • Spillage are managed by detection of leaks in the first place from structures or vessels. Spillage during loading/unloading is channelized properly to drains. • Paved area is provided near the process area to avoid soil contamination. Same shall be followed further. • The loading/unloading activity is done with a safe zone defined and in a marked safe area. • All underground tanks are provided with extra prevention to avoid leakage. Sensors are provided to detect leakage. • Closed Effluent channelization is provided all over the plant area.	• Rules & Regulations of Local bodies/village panchayat • Construction & Demolition Waste (Management & Handling) Rules, 2016 • Solid Waste Management Rules, 2023 • Hazardous & Other Waste (Management and Transboundary Movement) Amendment Rules, 2023

S. No.	Environmental Component	Management	Applicable Norms
		• Water less cleaning is adopted wherever spill occurs to avoid runoff. • Drains are already provided near machinery area to collect spillage or leakage.	
6.	Ecology & Biodiversity	• Water sprinkling is being done at the site at regular intervals. • Wastewater is being disposed as per existing practise. • Green belt and boundary wall are provided to reduce the impact of air and noise in nearby areas. • An effort apparently is made to increase the percent of survival in subsequent years. • Additional Green belt is provided for Nano Fertilizer plant.	• State Forest Act • Forest (Conservation) ACT, 1980 with Amendments Made in 1988 • Wildlife Protection Act
7.	Socio-Economic	• Apart from Plant utility and manufacturing area, R&D lab, Canteen, admin, Guest House, drinking water, Water treatment, etc facilities are provided within the plant. • All the workers are continuously trained for proper handling and transportation of hazardous materials as per Hazardous & Other Waste (Management and Transboundary Movement) Amendment Rules, 2023 • Hygiene conditions are maintained at site. • PPE are given to labour working in noisy and risky area. Periodic inspection of PPE is done to ensure that they are in proper condition by keeping the records. • All OSHAS guidelines are followed in the plant. • The greenbelt area is already developed which help in enhancing the aesthetics value of the area.	• OHSAS • BOCWA • Labour Act, 1970

S. No.	Environmental Component	Management	Applicable Norms
		• Health and safety officers are deputed all the time at the plant. • MSDS and safety instruction are displayed in working area. • A well-developed Township is provided for employees of IFFCO.	

WASTEWATER MANAGEMENT SYSTEM

The Water Pollution Control Equipment's are already installed in the unit as mentioned below.

- ETS cum neutralization Tank- 1 KLD
- STP- 10 KLD
- ETP – 50 KL/hr
- Guard Pond- 2 x 85000 KL
- Air Stripper- Capacity Normal- 50 KL/hr & Maximum – 50 KL/hr
- Stream Stripper (2 Nos.)- One inline & one standby – Capacity (each)- 50 KL/hr
- STP in Township – 2.34MLD

All existing effluent treatment facilities are capable of treating the effluent generated from the plant.

Process Description of Effluent Treatment System (ETS) cum Neutralization Tank

The Effluent Treatment System of the Nano Project has been designed to achieve Zero Liquid Discharge.

- The effluent stream generated during cleaning of Reactor Vessels (A/B/C) for Nano-Urea/ and Reactor Vessels (A/B/C) for Nano-Sulphur / Nano Micronutrients shall be collected in Effluent collection pit No 2. The quantity of Effluent generation due to such cleaning of Reactor Vessels will be around 750 litres/day (i.e. 500 liters/day from Nano Urea Unit & 250 liters/day of Nano-Sulphur / Nano- Micronutrients unit).
- Other type of effluent stream shall be generated due to floor washing so as to clean the spillage of raw material. Around 250 litres of effluent per day will be generated due to floor washing. This effluent will be diverted to Effluent Collection pit (No 1) where effluent sample will be analyzed for pH. The samples of treated water shall be analyzed by Laboratory for pH. Based on the result, effluent shall be neutralized using caustic solution stored inside the complex.
- The treated effluent in ETS will constitute traces of Nitrogen, Sulphur and Micronutrients (Boron, Zinc, Copper) which can be used for horticulture / landscaping within the Plant premises. Total quantity of effluent generation will be around 1KL per day and outlet flow of treated water discharged from Effluent Treatment System (ETS) to horticulture/gardening shall be intermittent.
- The sludge generated from the Effluent collection pits will be collected and stored within the plant premises in HDPE bags and then disposed off to TSDF Site.

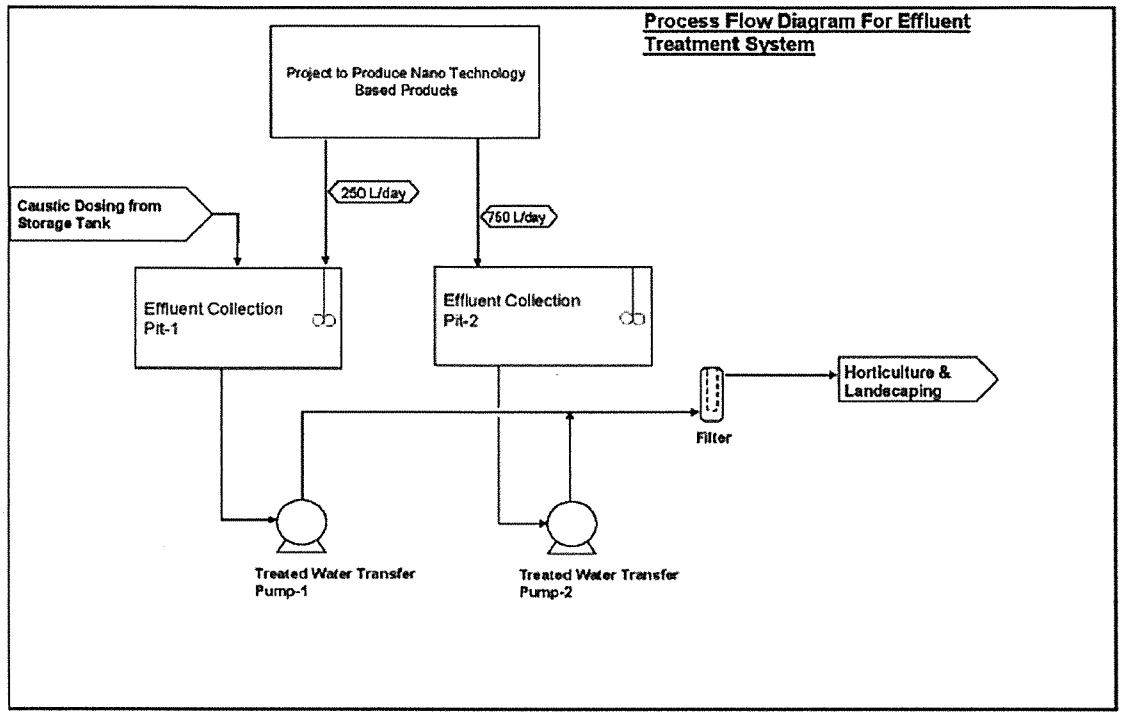


Figure 1.1 Block Diagram of Proposed ETS cum Neutralization Tank

Equipment details of Sewage Treatment System Plant based on MBR Technology (10 KLD) at Nano Fertiliser Plant

1) COLLECTION SUMP
   1.1 RAW SEWAGE TRANSFER PUMP (P-01 A,B) - 1W+1S
2) COARSE BAR SCREEN
3) FINE BAR SCREEN
4) EQUALIZATION TANK
   4.1 EFFLUENT TRANSFER PUMP (P-02 A,B) -1W+1S
   4.2 AIR BLOWER FOR EQUALIZATION TANK (BL-01 A,B) -1W+1S
5) ROTARY DRUM SCREEN
6) ANOXIC TANK
   6.1 AGITATOR FOR MIXING (AG-01)
7) AERATION TANK
   7.1 AIR BLOWER FOR AERATION TANK (BL-01 A,B) -1W+1S
   7.2 DO METER
8) MBR TANK
   8.1 PERMEATE PUMP (P-03 A,B) -1W+1S
   8.2 RECIRCULATION PUMP (P-04 A,B) -1W+1S
   8.3 HYPOCHLORITE DOSING PUMP FOR MBR CLEANING (DP-01 A)
   8.4 CITRIC ACID DOSING PUMP FOR MBR CLEANING (DP-02 A)

9) FILTER PRESS

9.1 SLUDGE COLLECTION TANK

9.2 AGITATOR FOR MIXING (AG-02)

9.3 FILTER PRESS FEED PUMP (P-05 A,B) -1W+1S

9.4 DWPE DOSING PUMP (DP-04 A)

10) ULTRA VIOLET (UV)

10.1 TREATED TRANSFER PUMP (P-06 A,B,C) -2W+1S

10.2 HYPOCHLORITE DOSING PUMP (DP-03 A)

11) TREATED WATER TANK

Effluent Treatment Plant

i) Occasional wastewater containing ammonia as impurity, generated during upset and start-up/shutdown of the plants is collected in the effluent holding pits provided separately in all the plants, Oil is recovered through rotating disc and then it is pumped to Effluent Holding Tank for the treatment.

This collected effluent is passed through Sand filters. The ammonia is stripped off through air and steam strippers. The treated wastewater is collected in LDPE lined, PCC paved lagoon-1 (Guard-Pond/Equalization Pond) of capacity 85,000m3 at the terminal end of ETP. Here ammonia stripping takes place naturally and through fountains. The treated wastewater is utilized for horticulture purposes and irrigation of green belt developed in and around the plant & township along with other treated effluent.

(ii) The Acidic and Alkaline wastewater generated due to the regeneration of exhausted cation and anion resins in water treatment plant are collected in the neutralization tank.

Eco-friendly Phosphate-based corrosion inhibitors are being used in the treatment of cooling water in all the cooling towers. The Cooling tower blow down is mixed with wastewater coming from neutralization tank of DM Plant in Effluent Treatment Plant. The pH of this water is maintained within 6.5 – 8.5 and then it is stored in Guard Pond-2 of capacity 85000 KL. Most of this treated effluent is being used in the horticulture purposes for irrigation of green belt developed in and around the plant & township and remaining /during rainy season treated wastewater is discharged outside. ETP flow diagram is shown in **Figure 1.3.**

Name and Size of Each Unit:

a. Contaminated Effluent Holding Tank:

   Total Capacity 1500m3

   Dimensions (LxBxH): 36000mm x 18000mm x 1550mm

b. Effluent Holding Pit:

Capacity 500m3

Dimensions (LxBxH): 13000mm x 13000mm x 3000mm

c. Pressure sand Filters: 2 Nos. (One in line & one standby)

Dimensions (DxH): 2740mm x 2200mm

d. Air Stripper:

Dimensions (LxBxH) Air Stripping: 17000mm x 5000mm x 9350mm

Collector Basin:12800mm x 5300mm x 1500mm

e. Steam Stripper: (2Nos.) One in line & one standby

Dimensions (D x H) Steam Stripping: 1500mm x 8500mm

Collector Basin: 2500mm x 5000mm

f. Guard Ponds: (2Nos.)

Capacity 85000 m3 each

Area 59000 m2 each

Depth 1.5m each

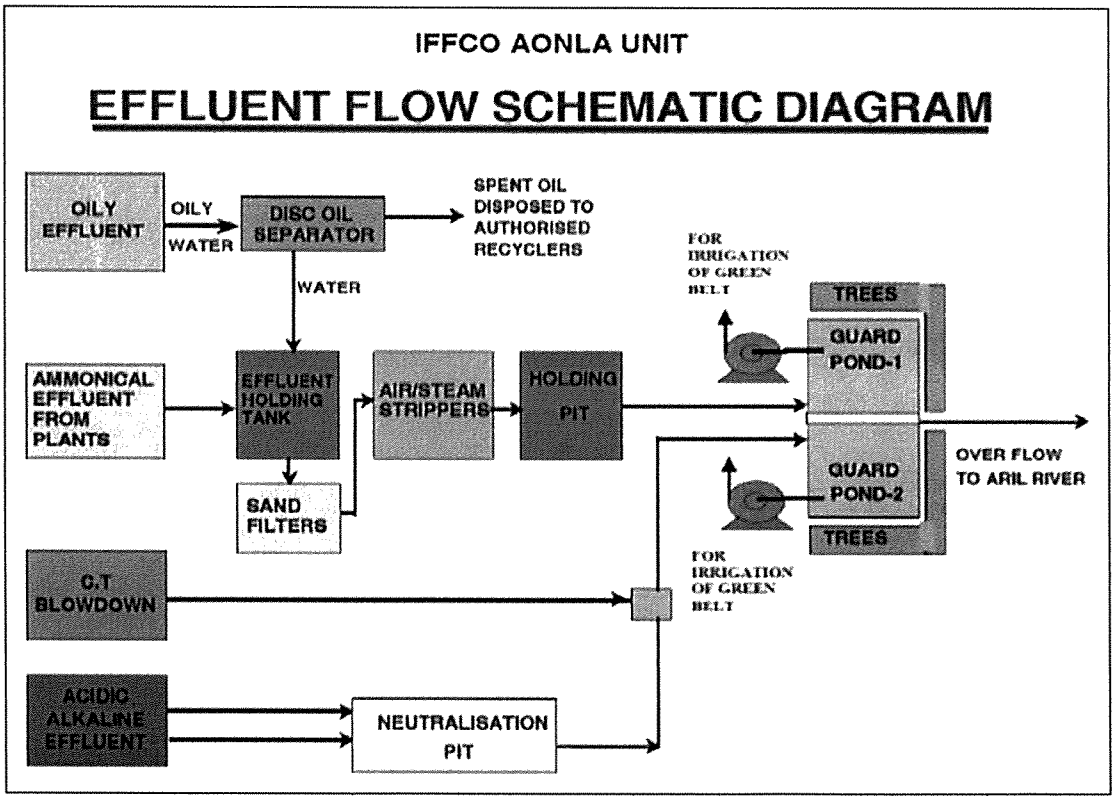


Figure 1.3 Process Flow Diagram of ETP & other Treatment Schemes

AIR POLLUTION MANAGEMENT SYSTEM

Emission Control System

The manufacturing process of nano-fertilizer plant is a closed loop reactor vessel setup with regulated control. Hence, nano-fertilizers plant will not contribute to air emissions. No additional Stack is proposed in modernization and expansion. There shall be no gaseous emission from Nano Fertiliser Unit. It is proposed to use the LP Steam available from the Urea/Ammonia Plant. All measures shall be adopted during transportation and handling of Raw Material and Product.

Source of air pollution in the existing unit are from flue gas stacks of Primary Reformer of Ammonia Plants, flue gas stacks of Captive Power Plant, HRU and Urea Dust emission from Prill Tower of Urea Plants. The PM, SOx& NOx, in flue gas always remain below the standard limits given by UPPCB/MoEF&CC. The urea dust emission from Prill Tower of both Urea Plants remains less than the prescribed limit. Various mechanisms have been provided in all plants to control the emission. Natural gas is being used as fuel of Boiler; hence emissions are negligible. Details of existing stack emission are given in **Table 1.2.**

Table 1.2 : Details of Stack

S. No.	Stack Attached	Fuel Used	APCM	Expected Pollutants
1	SG Boiler – 150 TPH	Natural Gas	Attached to 120 m stack	NOx
2	GT/ HRSG -I (Power Plant) – 80 TPH	Natural Gas	Attached to 30 m stack	NOx
3	GT/ HRSG-II (Power Plant) – 80 TPH	Natural Gas	Attached to 30 m stack	NOx
4	HRU Ammonia- II	Natural Gas	Attached to 30 m stack	NOx
5	Primary Reformer- I	Natural Gas	Attached to 30.2 m stack	NOx
6	Primary Reformer- II	Natural Gas	Attached to 30 m stack	NOx
7	DG Sets (2 x 2188 KVA)	HSD	Attached to 9.24 m stacks	PM
Process Stack / Vents				
1	Prilling Tower-I	-	96 m	PM
2	Prilling Tower-II	-	104 m	PM

Fugitive Emission Control: Fugitive emissions are also generated more specially while handling of product. Following measures are adopted in the plant to reduce the fugitive emissions and same shall be followed further.

Dust Collection system

The dust extraction systems have been designed for collecting, conveying and scrubbing the urea dust, generated by material handling equipment at the silo, transfer house and the bagging plant. The function of dust extraction system is mentioned below:

- To suck the dust from various point by induced draught air
- To feed the dust laden air to scrubber
- To scrub the dust laden air with water
- To feed urea solution to slurry tank
- To emit clean air into atmosphere

The urea dust laden air is collected by the suction hoods provided at each dust generating points and conveyed by the interconnecting ducts to cyclonic scrubber by induced draft. Process water recirculation is established before the dusty air is introduced into the scrubber. The process water (circulating urea/ water solution) is atomized as fine droplets by means of specially designed spray nozzles. The inlet duct to cyclonic scrubber is equipped with these nozzles together with swinging inlet damper. This damper is manually adjustable to provide flexibility in adjusting the pressure drop by adjusting cross-sectional area of the tangential inlet.

The urea solution is separated from the cleaned air by the centrifugal action imparted to air in the cyclonic section. The collected urea solution flows by gravity to scrubber liquor tank where a hydraulic seal is maintained by ensuring sufficient liquid level.The clean air from the scrubber is induced by the centrifugal fan and forced into the stack.

Vibro Priller in Urea Plant

Vibro Priller has been installed in both Prilling. It is used to reduce the emission level and to improve product quality, w.r.t. uniform product size distribution.

The Vibro Priller is designed to reduce the product temperature by uniform distribution over cross-sectional area of prill tower and also avoid deposition on prill tower inside wall. The technical advantages are uniform product size, reduced temperature of product at bottom of prill tower, improved crushing strength and reduction in dust emission from prill tower. New type of vibrator based on magnetostriction principles has been developed (a property of ferromagnetic materials that causes them to change their shape or dimensions during the process of magnetization). A control unit is provided which has the ability to control the vibration in automatic mode depending on the changing melt level.

Benefits from the Vibro priller in Urea plant is mentioned below

- Uniform prill size is achieved.
- Expected Reduction in the temperature of urea prill in the range of 2 deg C at bottom of prill tower with the same air flow.

- Prill tower emission will reduce.
- Frequency of prilling section shut down will reduce due to less scrapper build up
- Reduction of deposition of dust inside the wall of prill tower
- Prill cooling system load will be reduced.

Ammonia Plants

During startup and shutdown of the plants, gases at various stages of processing have to be vented. All these gases are diverted by means of a header to a flare stack located at a height of 96 meter. Hot discharges from safety valves also are connected to this header. The flue gases exiting from the primary reformer waste heat recovery section is cooled up to a temperature of 150 degree C and vented at approx.32 meters.

Complete combustion of fuel in primary reformer is envisaged. The flue gases exiting from the Primary Reformers of Ammonia Plants are regularly monitored and always conform to the prescribed standard. Complete combustion of fuel is also ensured by on-line Oxygen analyzers.

The flue gases exiting from the Heat Recovery Unit of Gas Turbine used to run Air Compressor in Ammonia-II Plant is cooled up to 150 degree C temperature and vented at 30 meters. Complete combustion of fuel is ensured by online Oxygen analyser. The flue gases exiting from HRU stack are regularly monitored and always conform to the prescribed standard. The fuel used in the Primary Reformer and Gas Turbine is Natural Gas containing "Sulphur" approximately 0.001% (10 ppm max.), causing negligible Sox emissions.

Carbon Dioxide Recovery Plant (CDR Plant): IFFCO Aonla Unit has installed a Carbon Dioxide Recovery (CDR) Unit in December 2006 to recover 450 MTPD CO2 from the stack flue gas of Primary Reformer of Ammonia-I and thus reducing the GHG emission to the atmosphere. The recovered CO2 is being utilized for the full conversion of ammonia to urea.

Purge Gas Recovery Plant (PGR Plant): Purge Gas Recovery (PGR) Unit was commissioned in 1996 to recover Ammonia and Hydrogen from Purge Gases of ammonia plants. It is based on Membrane Separation Technology (Prism Separators) and is common for both the Ammonia plants. The Ammonia and Hydrogen from the purge gases are separated. Recovered Ammonia is sent to Urea plant for producing urea, whereas Hydrogen is mixed with Synthesis Gas in Synthesis Gas Compressor for producing Ammonia. The tail gas after removal of Ammonia and Hydrogen is used as fuel in Primary Reformer of Ammonia plants.

Urea Plant

Both the prill towers are based on Natural draft. Prill bucket RPM are well optimized and prill bucket is regularly cleaned to achieve optimum prill size and thus less fines and emissions. The dust emission from prill towers of both Urea Plants is regularly monitored and always conforms to the prescribed standard.

Steam & Power Generation Plant

Complete combustion of fuel in the Gas Turbines, Heat Recovery Steam Generation (HRSG) Plants and SG Boiler is envisaged. The flue gases exiting from the above units are regularly monitored and always conform to the prescribed standard. Complete combustion is also ensured by on-line Oxygen Analysers.

The stack height of S.G. Boiler is kept at 120 meter and stack heights of HRSG/Gas Turbine Generator are kept at 30 meter to maintain ground level concentration of pollutants within the prescribed limits. Under normal condition, only Natural Gas containing "Sulphur" approximately 0.001% (10 ppm max.) is used, causing negligible SOx emissions.

Other measures adopted in the Plant for air emission control

- The gaseous emissions from various process units i.e., urea dust prill towers, NOx and SOx from primary reformers of Ammonia plant/GT-HRU (Ammonia-II)/steam generation plant/GTG-HRSG units are regularly monitored and always conform to the prescribed standards.
- In the event of failure of any pollution control device adopted by the unit, corrective measures are being taken and then respective unit is restarted.
- Four numbers of ambient air quality monitoring stations have been set up in consultation with UP Pollution Control Board. PM10, PM2.5, SO2, NO2 & NH3 are being monitored regularly at all the four stations. The concentration in ambient air always remains well below the prescribed standards.
- Stack emissions are being monitored regularly. In unit plant, Urea dust remains within the prescribed standard i.e., 50 mg/Nm3.
- The ammonia vapours generated in Ammonia storage tanks are normally diverted to the refrigeration compressor of Ammonia plant. In addition, a separate holding compressor is provided in each ammonia storage tank to take care of ammonia vapours in case ammonia plant is not running. Further, a separate flare stack has been provided in each ammonia storage tank to burn off ammonia vapours in case of any emergency. During upset conditions of Ammonia plant, ammonia vapours and process gases are burnt in Flare stack through a common header.
- Preventive measures like SOP, Work Permit System, and Physical inspection / Monitoring of equipment are taken to eliminate the chance of accident on account of explosion, spillages, fire, or hazardous substances etc.
- The finished product is being transported through Rail and trucks. The rail yard exists within the plant for transportation of finished product.
- Ammonia Storage tanks Compressor are provided to maintain tanks pressure by converting vapor Ammonia to Liquid Ammonia and then returning to Tanks.
- Ammonia gas detectors are installed at identified location near Ammonia storage Tanks.
- Automatic weighing and Bagging machine are provided with system to reduce fugitive emission.

- Any Spillage/emission of Urea dust during different activities of urea handling/manufacturing process is being collected by de-dusting system and recirculated within the process after making urea solution.
- All trucks are transported after proper covering from the top.
- Bag Filters and ID fans are provided for collecting fugitive emissions for recycle into process.
- Breather Valves are used in the ammonia storage.
- Proper maintenance& operation for leak proof condition of machinery on regular basis.
- Sensors and detectors are provided at strategic locations for early detection of any leak.
- Airborne dust at all transfers operations/ points are controlled either by spraying water or providing enclosures.
- Regular maintenance of valves, pumps and other equipment are being done to prevent leakages and thus minimizing the fugitive emissions of VOCs.
- Entire process is carried out in the closed loop with proper maintenance of pressure and temperature.
- Periodic monitoring of work area is being carried out to check the fugitive emission.
- To eliminate chances of leakages from glands of pumps, mechanical seal is provided at all ammonia pumps.
- Routine plant rounds by Production, Maintenance & Technical groups to detect any abnormality in early stage. Pro-active maintenance culture to stop/reduce fugitive emissions due to fault in machinery, leaks or abnormal plant operating parameters.
- Good housekeeping, proper maintenance and continuous observation preventS the chances of any fugitive emission from the process plant.
- When monitoring, if results indicate parameters above permissible limit, necessary correction/corrective action is being done immediately.

Annexure-3

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC025110

VALID FROM 30/03/2021 TO 29/03/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202102000460

Name of the Owner	ISHWAR CHANDRA JHA		
Designation पद	Executive Director	**Company Name** कंपनी का नाम	INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.
Company Address कंपनी का पता	PAUL POTHEN NAGAR, IFFCO CENSUS VILLAGE, ALAMPUR J	**Authorization Letter** प्राधिकार पत्र	Download
Address of the Applicant	IFFCO Aonla Unit, PO- IFFCO Township	**Application No.**	BRLY0221NIN0009
Date of Submission	26/02/2021	**Specimen Signature**	

Location Particulars

District	Bareilly	**Block**	ALAMPUR JAFARBAD
Plot No./Khasra No.	N/A	**Municipality/Corporation**	N/A
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/01/1986		
Type of Well	Tube Well/Boring	**Depth of the Well (In meter)**	271.00
Purpose of well	Industrial	**Assembly Size(For Tube Well)**	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	**H.P. of the Pump**	48.00
Operational Device	Electric Motor	**Rate of Withdrawal (m^3/hr.)**	150.00
Date of Energization (In Case of Electric Pump)		01/01/1986	

Maximum Allowable Rate of Withdrawal (m^3/hr.):	150.00	**Maximum Allowable Running Hours Per Day:**	24.00
Maximum Allowable Annual Extraction of Ground Water:	252000	**Recharge Required**	0.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 0.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

  Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

  - The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
  - The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
  - No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

  - The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
  - For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
  - The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
  - All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.

- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**28/09/2021**

Place:**Bareilly**

This certificate is electronically generated and does not require digital signature

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC031047

VALID FROM 01/04/2021 TO 31/03/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202102000465

Name of the Owner	ISHWAR CHANDRA JHA		
Designation पद	Executive Director	**Company Name** कंपनी का नाम	INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.
Company Address कंपनी का पता	PAUL POTHEN NAGAR, IFFCO CENSUS VILLAGE, ALAMPUR J	**Authorization Letter** प्राधिकार पत्र	Download
Address of the Applicant	IFFCO Aonla Unit, PO- IFFCO Township	**Application No.**	BRLY0221NIN0010
Date of Submission	26/02/2021	**Specimen Signature**	

Location Particulars

District	Bareilly	**Block**	ALAMPUR JAFARBAD
Plot No./Khasra No.	N/A	**Municipality/Corporation**	N/A
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/01/1986		
Type of Well	Tube Well/Boring	**Depth of the Well (In meter)**	198.00
Purpose of well	Industrial	**Assembly Size(For Tube Well)**	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	**H.P. of the Pump**	48.00
Operational Device	Electric Motor	**Rate of Withdrawal (m^3/hr.)**	150.00
Date of Energization (In Case of Electric Pump)		01/01/1986	

Maximum Allowable Rate of Withdrawal (m^3/hr.):	150.00	**Maximum Allowable Running Hours Per Day:**	24.00
Maximum Allowable Annual Extraction of Ground Water:	324000	**Recharge Required**	0.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 0.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

  Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

  - The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
  - The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
  - No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

  - The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
  - For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
  - The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
  - All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.

- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**23/10/2021**

Place:**Bareilly**

This certificate is electronically generated and does not require digital signature

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC015224

VALID FROM 30/03/2021 TO 29/03/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202102000468

Name of the Owner	ISHWAR CHANDRA JHA		
Designation पद	Executive Director	**Company Name** कंपनी का नाम	INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.
Company Address कंपनी का पता	PAUL POTHEN NAGAR, IFFCO CENSUS VILLAGE, ALAMPUR J	**Authorization Letter** प्राधिकार पत्र	Download
Address of the Applicant	IFFCO Aonla Unit, PO- IFFCO Township	**Application No.**	BRLY0221NIN0011
Date of Submission	26/02/2021	**Specimen Signature**	

Location Particulars

District	Bareilly	**Block**	ALAMPUR JAFARBAD
Plot No./Khasra No.	N/A	**Municipality/Corporation**	N/A
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/01/1986		
Type of Well	Tube Well/Boring	**Depth of the Well (In meter)**	177.00
Purpose of well	Industrial	**Assembly Size(For Tube Well)**	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	**H.P. of the Pump**	80.00
Operational Device	Electric Motor	**Rate of Withdrawal (m^3/hr.)**	250.00
Date of Energization (In Case of Electric Pump)		01/01/1986	

Maximum Allowable Rate of Withdrawal (m^3/hr.):	250.00	**Maximum Allowable Running Hours Per Day:**	24.00
Maximum Allowable Annual Extraction of Ground Water:	900000	**Recharge Required**	0.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 0.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

- The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
- The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
- No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

- The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
- For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
- All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.

- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**19/10/2021**

Place:**Bareilly**

This certificate is electronically generated and does not require digital signature

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC029296

VALID FROM 30/03/2021 TO 29/03/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202102000469

Name of the Owner	ISHWAR CHANDRA JHA		
Designation पद	Executive Director	**Company Name** कंपनी का नाम	INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.
Company Address कंपनी का पता	PAUL POTHEN NAGAR, IFFCO CENSUS VILLAGE, ALAMPUR J	**Authorization Letter** प्राधिकार पत्र	Download
Address of the Applicant	IFFCO Aonla Unit, PO- IFFCO Township	**Application No.**	BRLY0221NIN0012
Date of Submission	26/02/2021	**Specimen Signature**	

Location Particulars

District	Bareilly	**Block**	ALAMPUR JAFARBAD
Plot No./Khasra No.	N/A	**Municipality/Corporation**	N/A
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/01/1986		
Type of Well	Tube Well/Boring	**Depth of the Well (In meter)**	182.00
Purpose of well	Industrial	**Assembly Size(For Tube Well)**	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	**H.P. of the Pump**	80.00
Operational Device	Electric Motor	**Rate of Withdrawal (m^3/hr.)**	250.00
Date of Energization (In Case of Electric Pump)		01/01/1986	

Maximum Allowable Rate of Withdrawal (m^3/hr.):	250.00	**Maximum Allowable Running Hours Per Day:**	24.00
Maximum Allowable Annual Extraction of Ground Water:	1080000	**Recharge Required**	984426.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 984426.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

- The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
- The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
- No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

- The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
- For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
- All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.

- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**14/10/2021**

Place:**Bareilly**

This certificate is electronically generated and does not require digital signature

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC041097

VALID FROM 30/03/2021 TO 29/03/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202102000471

Name of the Owner	ISHWAR CHANDRA JHA		
Designation पद	Executive Director	**Company Name** कंपनी का नाम	INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.
Company Address कंपनी का पता	PAUL POTHEN NAGAR, IFFCO CENSUS VILLAGE, ALAMPUR J	**Authorization Letter** प्राधिकार पत्र	Download
Address of the Applicant	IFFCO Aonla Unit, PO- IFFCO Township	**Application No.**	BRLY0221NIN0013
Date of Submission	26/02/2021	**Specimen Signature**	

Location Particulars

District	Bareilly	**Block**	ALAMPUR JAFARBAD
Plot No./Khasra No.	N/A	**Municipality/Corporation**	N/A
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/01/1986		
Type of Well	Tube Well/Boring	**Depth of the Well (In meter)**	183.00
Purpose of well	Industrial	**Assembly Size(For Tube Well)**	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	**H.P. of the Pump**	60.00
Operational Device	Electric Motor	**Rate of Withdrawal (m^3/hr.)**	200.00
Date of Energization (In Case of Electric Pump)		01/01/1986	

Maximum Allowable Rate of Withdrawal (m^3/hr.):	200.00	**Maximum Allowable Running Hours Per Day:**	24.00
Maximum Allowable Annual Extraction of Ground Water:	864000	**Recharge Required**	864000.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 864000.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

- The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
- The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
- No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

- The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
- For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
- All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.

- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**19/10/2021**

Place:**Bareilly**

This certificate is electronically generated and does not require digital signature

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC044959

VALID FROM 30/03/2021 TO 29/03/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202102000472

Name of the Owner	ISHWAR CHANDRA JHA		
Designation पद	Executive Director	**Company Name** कंपनी का नाम	INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.
Company Address कंपनी का पता	PAUL POTHEN NAGAR, IFFCO CENSUS VILLAGE, ALAMPUR J	**Authorization Letter** प्राधिकार पत्र	Download
Address of the Applicant	IFFCO Aonla Unit, PO- IFFCO Township	**Application No.**	BRLY0221NIN0014
Date of Submission	26/02/2021	**Specimen Signature**	

Location Particulars

District	Bareilly	**Block**	ALAMPUR JAFARBAD
Plot No./Khasra No.	N/A	**Municipality/Corporation**	N/A
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/01/1986		
Type of Well	Tube Well/Boring	**Depth of the Well (In meter)**	188.00
Purpose of well	Industrial	**Assembly Size(For Tube Well)**	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	**H.P. of the Pump**	48.00
Operational Device	Electric Motor	**Rate of Withdrawal (m^3/hr.)**	150.00
Date of Energization (In Case of Electric Pump)		01/01/1986	

Maximum Allowable Rate of Withdrawal (m^3/hr.):	150.00	**Maximum Allowable Running Hours Per Day:**	24.00
Maximum Allowable Annual Extraction of Ground Water:	324000	**Recharge Required**	324000.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 324000.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

- The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
- The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
- No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

- The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
- For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
- All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.

- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**14/10/2021**

Place:**Bareilly**

This certificate is electronically generated and does not require digital signature

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC012370

VALID FROM 30/03/2021 TO 29/03/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202102000473

Name of the Owner	ISHWAR CHANDRA JHA		
Designation पद	Executive Director	**Company Name** कंपनी का नाम	INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.
Company Address कंपनी का पता	PAUL POTHEN NAGAR, IFFCO CENSUS VILLAGE, ALAMPUR J	**Authorization Letter** प्राधिकार पत्र	Download
Address of the Applicant	IFFCO Aonla Unit, PO- IFFCO Township	**Application No.**	BRLY0221NIN0015
Date of Submission	26/02/2021	**Specimen Signature**	

Location Particulars

District	Bareilly	**Block**	ALAMPUR JAFARBAD
Plot No./Khasra No.	N/A	**Municipality/Corporation**	N/A
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/01/1986		
Type of Well	Tube Well/Boring	**Depth of the Well (In meter)**	192.00
Purpose of well	Industrial	**Assembly Size(For Tube Well)**	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	**H.P. of the Pump**	48.00
Operational Device	Electric Motor	**Rate of Withdrawal (m^3/hr.)**	150.00
Date of Energization (In Case of Electric Pump)		01/01/1986	

Maximum Allowable Rate of Withdrawal (m^3/hr.):	150.00	**Maximum Allowable Running Hours Per Day:**	24.00
Maximum Allowable Annual Extraction of Ground Water:	324000	**Recharge Required**	324000.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 324000.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

  Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

  - The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
  - The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
  - No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

  - The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
  - For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
  - The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
  - All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.

- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**19/10/2021**

Place:**Bareilly**

This certificate is electronically generated and does not require digital signature

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC026916

VALID FROM 30/03/2021 TO 29/03/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202102000475

Name of the Owner	ISHWAR CHANDRA JHA		
Company Name कंपनी का नाम	INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.	**Company Address** कंपनी का पता	PAUL POTHEN NAGAR, IFFCO CENSUS VILLAGE, ALAMPUR J
Address of the Applicant	IFFCO Aonla Unit, PO- IFFCO Township	**Application No.**	BRLY0221NIN0016
Date of Submission	26/02/2021	**Specimen Signature**	

Location Particulars

District	Bareilly	**Block**	ALAMPUR JAFARBAD
Plot No./Khasra No.	N/A	**Municipality/Corporation**	N/A
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/01/1986		
Type of Well	Tube Well/Boring	**Depth of the Well (In meter)**	186.00
Purpose of well	Industrial	**Assembly Size(For Tube Well)**	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	**H.P. of the Pump**	85.00
Operational Device	Electric Motor	**Rate of Withdrawal (m^3/hr.)**	250.00
Date of Energization (In Case of Electric Pump)		01/01/1986	
Maximum Allowable Rate of Withdrawal (m^3/hr.):	250.00	**Maximum Allowable Running Hours Per Day:**	24.00

Maximum Allowable Annual Extraction of Ground Water:	360000	**Recharge Required**	360000.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 360000.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

  Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

  - The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
  - The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
  - No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

  - The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
  - For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
  - The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
  - All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.

- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 It capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**19/10/2021**

Place:**Bareilly**

This certificate is electronically generated and does not require digital signature

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC045762

VALID FROM 30/03/2021 TO 29/03/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202102000476

Name of the Owner	ISHWAR CHANDRA JHA		
Designation पद	Executive Director	**Company Name** कंपनी का नाम	INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.
Company Address कंपनी का पता	PAUL POTHEN NAGAR, IFFCO CENSUS VILLAGE, ALAMPUR J	**Authorization Letter** प्राधिकार पत्र	Download
Address of the Applicant	IFFCO Aonla Unit, PO- IFFCO Township	**Application No.**	BRLY0221NIN0017
Date of Submission	26/02/2021	**Specimen Signature**	

Location Particulars

District	Bareilly	**Block**	ALAMPUR JAFARBAD
Plot No./Khasra No.	N/A	**Municipality/Corporation**	N/A
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/01/1986		
Type of Well	Tube Well/Boring	**Depth of the Well (In meter)**	192.00
Purpose of well	Industrial	**Assembly Size(For Tube Well)**	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	**H.P. of the Pump**	85.00
Operational Device	Electric Motor	**Rate of Withdrawal (m^3/hr.)**	250.00
Date of Energization (In Case of Electric Pump)		01/01/1986	

Maximum Allowable Rate of Withdrawal (m^3/hr.):	250.00	**Maximum Allowable Running Hours Per Day:**	1.00
Maximum Allowable Annual Extraction of Ground Water:	250	**Recharge Required**	250.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 250.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

- The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
- The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
- No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

- The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
- For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
- All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.

- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**23/10/2021**

Place:**Bareilly**

This certificate is electronically generated and does not require digital signature

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC018169

VALID FROM 30/03/2021 TO 29/03/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202103000044

Name of the Owner	ISHWAR CHANDRA JHA		
Designation पद	Executive Director	**Company Name** कंपनी का नाम	INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.
Company Address कंपनी का पता	PAUL POTHEN NAGAR, IFFCO CENSUS VILLAGE, ALAMPUR J	**Authorization Letter** प्राधिकार पत्र	Download
Address of the Applicant	IFFCO Aonla Unit, PO- IFFCO Township	**Application No.**	BRLY0321NIN0020
Date of Submission	03/03/2021	**Specimen Signature**	

Location Particulars

District	Bareilly	**Block**	ALAMPUR JAFARBAD
Plot No./Khasra No.	N/A	**Municipality/Corporation**	N/A
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/01/1986		
Type of Well	Tube Well/Boring	**Depth of the Well (In meter)**	192.00
Purpose of well	Industrial	**Assembly Size(For Tube Well)**	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	**H.P. of the Pump**	80.00
Operational Device	Electric Motor	**Rate of Withdrawal (m^3/hr.)**	250.00
Date of Energization (In Case of Electric Pump)		01/01/1986	

Maximum Allowable Rate of Withdrawal (m^3/hr.):	250.00	**Maximum Allowable Running Hours Per Day:**	24.00
Maximum Allowable Annual Extraction of Ground Water:	1080000	**Recharge Required**	1080000.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 1080000.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

- The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
- The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
- No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

- The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
- For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
- All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.

- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**23/10/2021**

Place:**Bareilly**

This certificate is electronically generated and does not require digital signature

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC015924

VALID FROM 30/03/2021 TO 29/03/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202103000045

Name of the Owner	ISHWAR CHANDRA JHA		
Designation पद	Executive Director	**Company Name** कंपनी का नाम	INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.
Company Address कंपनी का पता	PAUL POTHEN NAGAR, IFFCO CENSUS VILLAGE, ALAMPUR J	**Authorization Letter** प्राधिकार पत्र	Download
Address of the Applicant	IFFCO Aonla Unit, PO- IFFCO Township	**Application No.**	BRLY0321NIN0021
Date of Submission	03/03/2021	**Specimen Signature**	

Location Particulars

District	Bareilly	**Block**	ALAMPUR JAFARBAD
Plot No./Khasra No.	N/A	**Municipality/Corporation**	N/A
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/01/1986		
Type of Well	Tube Well/Boring	**Depth of the Well (In meter)**	125.00
Purpose of well	Industrial	**Assembly Size(For Tube Well)**	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	**H.P. of the Pump**	80.00
Operational Device	Electric Motor	**Rate of Withdrawal (m^3/hr.)**	250.00
Date of Energization (In Case of Electric Pump)		01/01/1986	

Maximum Allowable Rate of Withdrawal (m^3/hr.):	250.00	**Maximum Allowable Running Hours Per Day:**	24.00
Maximum Allowable Annual Extraction of Ground Water:	1080000	**Recharge Required**	1080000.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 1080000.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

- The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
- The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
- No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

- The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
- For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
- All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.

- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**23/10/2021**

Place:**Bareilly**

This certificate is electronically generated and does not require digital signature

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC032519

VALID FROM 30/03/2021 TO 29/03/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202103000046

Name of the Owner	ISHWAR CHANDRA JHA		
Designation पद	Executive Director	**Company Name** कंपनी का नाम	INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.
Company Address कंपनी का पता	PAUL POTHEN NAGAR, IFFCO CENSUS VILLAGE, ALAMPUR J	**Authorization Letter** प्राधिकार पत्र	Download
Address of the Applicant	IFFCO Aonla Unit, PO- IFFCO Township	**Application No.**	BRLY0321NIN0022
Date of Submission	03/03/2021	**Specimen Signature**	

Location Particulars

District	Bareilly	**Block**	ALAMPUR JAFARBAD
Plot No./Khasra No.	N/A	**Municipality/Corporation**	N/A
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/01/1986		
Type of Well	Tube Well/Boring	**Depth of the Well (In meter)**	172.00
Purpose of well	Industrial	**Assembly Size(For Tube Well)**	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	**H.P. of the Pump**	80.00
Operational Device	Electric Motor	**Rate of Withdrawal (m^3/hr.)**	250.00
Date of Energization (In Case of Electric Pump)		01/01/1986	

Maximum Allowable Rate of Withdrawal (m^3/hr.):	250.00	**Maximum Allowable Running Hours Per Day:**	24.00
Maximum Allowable Annual Extraction of Ground Water:	540000	**Recharge Required**	540000.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 540000.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

  Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

  - The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
  - The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
  - No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

  - The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
  - For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
  - The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
  - All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.

- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**23/10/2021**

Place:**Bareilly**

This certificate is electronically generated and does not require digital signature

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC042785

VALID FROM 30/03/2021 TO 29/03/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202103000047

Name of the Owner	ISHWAR CHANDRA JHA		
Designation पद	Executive Director	**Company Name** कंपनी का नाम	INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.
Company Address कंपनी का पता	PAUL POTHEN NAGAR, IFFCO CENSUS VILLAGE, ALAMPUR J	**Authorization Letter** प्राधिकार पत्र	Download
Address of the Applicant	IFFCO Aonla Unit, PO- IFFCO Township	**Application No.**	BRLY0321NIN0023
Date of Submission	03/03/2021	**Specimen Signature**	

Location Particulars

District	Bareilly	**Block**	ALAMPUR JAFARBAD
Plot No./Khasra No.	N/A	**Municipality/Corporation**	N/A
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/01/1986		
Type of Well	Tube Well/Boring	**Depth of the Well (In meter)**	172.00
Purpose of well	Industrial	**Assembly Size(For Tube Well)**	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	**H.P. of the Pump**	80.00
Operational Device	Electric Motor	**Rate of Withdrawal (m^3/hr.)**	250.00
Date of Energization (In Case of Electric Pump)		01/01/1986	

Maximum Allowable Rate of Withdrawal (m^3/hr.):	250.00	**Maximum Allowable Running Hours Per Day:**	24.00
Maximum Allowable Annual Extraction of Ground Water:	540000	**Recharge Required**	540000.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 540000.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

  Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

  - The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
  - The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
  - No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

  - The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
  - For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
  - The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
  - All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.

- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**23/10/2021**

Place:**Bareilly**

This certificate is electronically generated and does not require digital signature

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC042059

VALID FROM 30/03/2021 TO 29/03/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202103000048

Name of the Owner	ISHWAR CHANDRA JHA		
Designation पद	Executive Director	**Company Name** कंपनी का नाम	INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.
Company Address कंपनी का पता	PAUL POTHEN NAGAR, IFFCO CENSUS VILLAGE, ALAMPUR J	**Authorization Letter** प्राधिकार पत्र	Download
Address of the Applicant	IFFCO Aonla Unit, PO- IFFCO Township	**Application No.**	BRLY0321NIN0024
Date of Submission	03/03/2021	**Specimen Signature**	

Location Particulars

District	Bareilly	**Block**	ALAMPUR JAFARBAD
Plot No./Khasra No.	N/A	**Municipality/Corporation**	N/A
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/01/1986		
Type of Well	Tube Well/Boring	**Depth of the Well (In meter)**	178.00
Purpose of well	Industrial	**Assembly Size(For Tube Well)**	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	**H.P. of the Pump**	85.00
Operational Device	Electric Motor	**Rate of Withdrawal (m^3/hr.)**	250.00
Date of Energization (In Case of Electric Pump)		01/01/1986	

Maximum Allowable Rate of Withdrawal (m^3/hr.):	250.00	**Maximum Allowable Running Hours Per Day:**	24.00
Maximum Allowable Annual Extraction of Ground Water:	1260000	**Recharge Required**	1260000.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 1260000.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

- The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
- The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
- No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

- The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
- For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
- All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.

- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**19/10/2021**

Place:**Bareilly**

This certificate is electronically generated and does not require digital signature

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC032733

VALID FROM 30/03/2021 TO 29/03/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202103000049

Name of the Owner	ISHWAR CHANDRA JHA		
Designation पद	Executive Director	**Company Name** कंपनी का नाम	INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.
Company Address कंपनी का पता	PAUL POTHEN NAGAR, IFFCO CENSUS VILLAGE, ALAMPUR J	**Authorization Letter** प्राधिकार पत्र	Download
Address of the Applicant	IFFCO Aonla Unit, PO- IFFCO Township	**Application No.**	BRLY0321NIN0025
Date of Submission	03/03/2021	**Specimen Signature**	

Location Particulars

District	Bareilly	**Block**	ALAMPUR JAFARBAD
Plot No./Khasra No.	N/A	**Municipality/Corporation**	N/A
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/01/1986		
Type of Well	Tube Well/Boring	**Depth of the Well (In meter)**	180.00
Purpose of well	Industrial	**Assembly Size(For Tube Well)**	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	**H.P. of the Pump**	80.00
Operational Device	Electric Motor	**Rate of Withdrawal (m^3/hr.)**	250.00
Date of Energization (In Case of Electric Pump)		01/01/1986	

Maximum Allowable Rate of Withdrawal (m^3/hr.):	250.00	**Maximum Allowable Running Hours Per Day:**	24.00
Maximum Allowable Annual Extraction of Ground Water:	900000	**Recharge Required**	900000.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 900000.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

- The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
- The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
- No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

- The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
- For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
- All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.

- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**23/10/2021**

Place:**Bareilly**

This certificate is electronically generated and does not require digital signature

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC037061

VALID FROM 30/03/2021 TO 29/03/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202103000050

Name of the Owner	ISHWAR CHANDRA JHA		
Designation पद	Executive Director	**Company Name** कंपनी का नाम	INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.
Company Address कंपनी का पता	PAUL POTHEN NAGAR, IFFCO CENSUS VILLAGE, ALAMPUR J	**Authorization Letter** प्राधिकार पत्र	Download
Address of the Applicant	IFFCO Aonla Unit, PO- IFFCO Township	**Application No.**	BRLY0321NIN0026
Date of Submission	03/03/2021	**Specimen Signature**	

Location Particulars

District	Bareilly	**Block**	ALAMPUR JAFARBAD
Plot No./Khasra No.	N/A	**Municipality/Corporation**	N/A
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/01/1986		
Type of Well	Tube Well/Boring	**Depth of the Well (In meter)**	180.00
Purpose of well	Industrial	**Assembly Size(For Tube Well)**	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	**H.P. of the Pump**	80.00
Operational Device	Electric Motor	**Rate of Withdrawal (m^3/hr.)**	250.00
Date of Energization (In Case of Electric Pump)		01/01/1986	

Maximum Allowable Rate of Withdrawal (m^3/hr.):	250.00	**Maximum Allowable Running Hours Per Day:**	24.00
Maximum Allowable Annual Extraction of Ground Water:	900000	**Recharge Required**	900000.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 900000.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

- The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
- The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
- No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

- The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
- For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
- All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.

- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

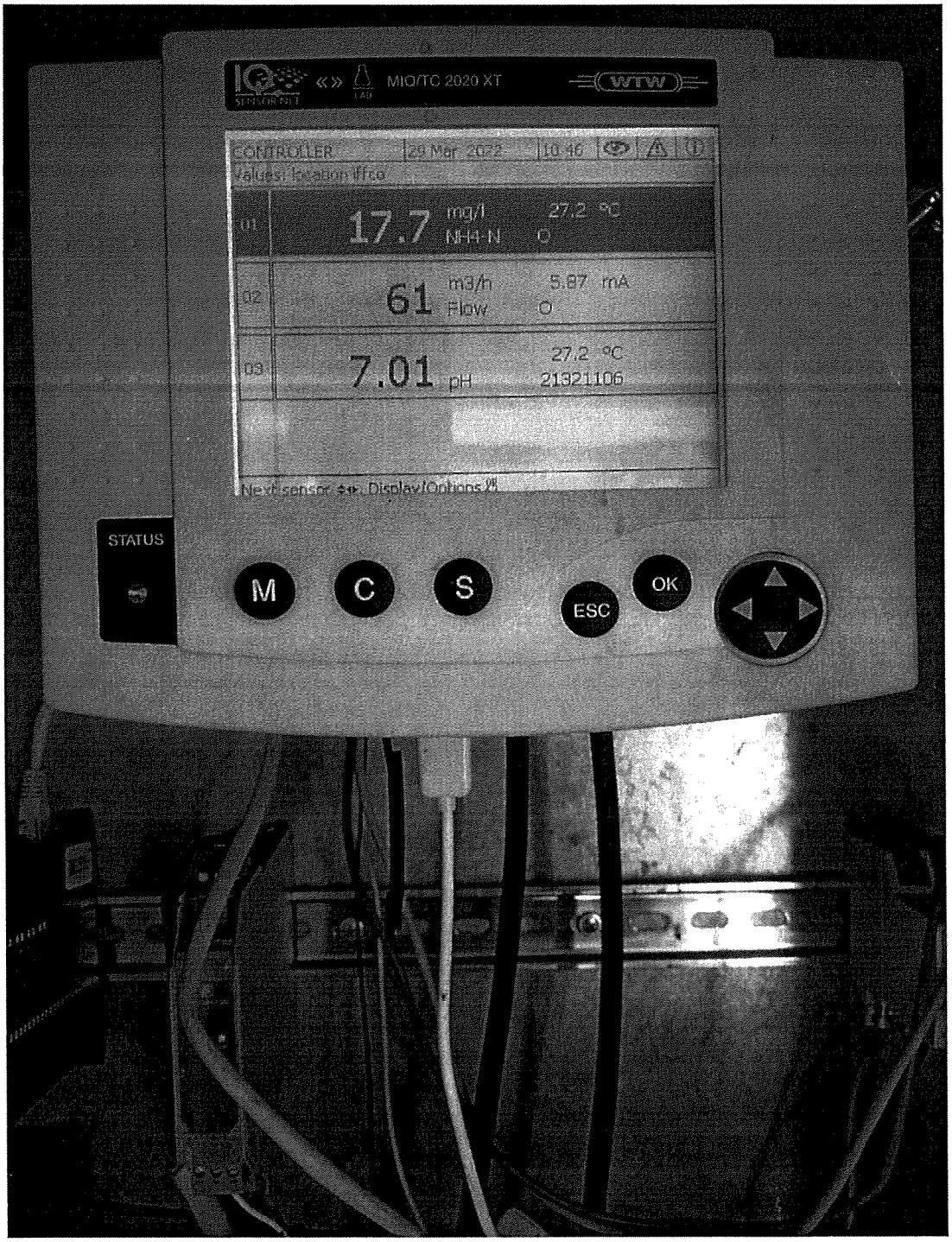
Date :**23/10/2021**

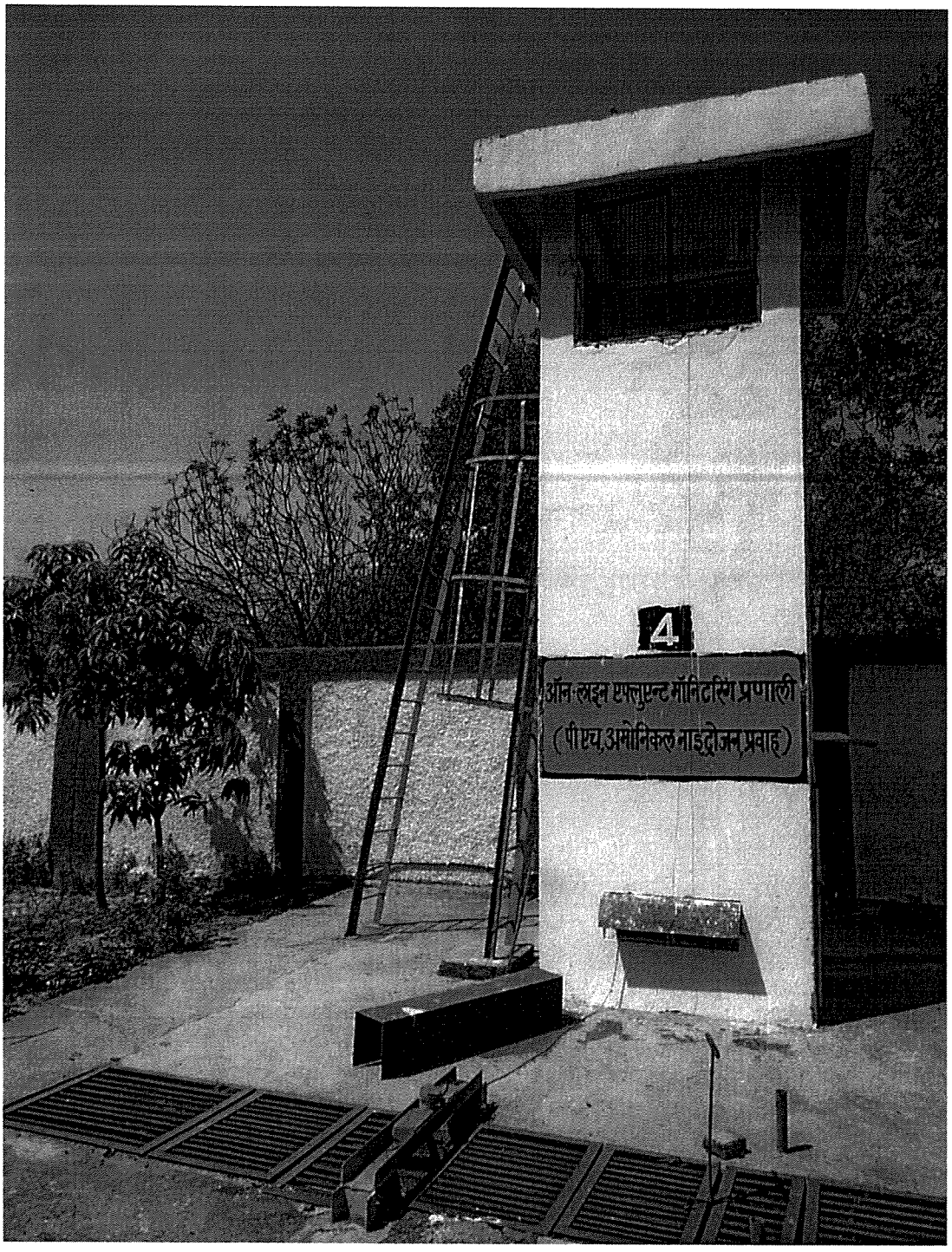
Place:**Bareilly**

This certificate is electronically generated and does not require digital signature

Annexure – 4

Photographs of ETP online monitoring system




4
ऑन लाइन एफ्लुएन्ट मॉनिटरिंग प्रणाली
(पी एच,अमोनिकल नाइट्रोजन,प्रवाह)

Annexure-5

STATUS OF IMPLEMENTATION OF POLLUTION CONTROL STANDARDS IN RESPECT OF LIQUID EFFLUENT / GASEOUS EMISSION IN FERTILIZER INDUSTRY

NAME OF THE UNIT: IFFCO AONLA UNIT, BAREILLY (UP)

PERIOD: October – 2024 to March – 2025

1	2	3	4			5
Plant	Type Liquid Effluent / Gaseous Emissions	Pollution item where actual level achieved are higher than the prescribed limits.	Prescribed Standards			Actual levels being achieved (Range)
			Parameters for liquid effluent of Fertiliser Industries	**MINAS** for liquid effluent of Fertiliser Industries	State Pollution Control Board (UPPCB)	
a	b	c	d	e	f	g
FACTORY DISCHARGE	Treated liquid effluent	"No" (As the effluent is treated in ETP and the pollutants remain well below the standard limits. Approx. 80% of this treated effluent is being used in the irrigation of green belt and lawns developed in plant & township. Remaining is let out to river Aril.)	♦ Total Suspended Solids, mg/l (max)	100	100	74 – 87
			♦ pH	6.5 - 8.5	5.5 - 9.0	7.50 – 8.10
			♦ Temp	-	<40.0°C	25°C – 26°C
			♦ BOD for 5 days at 20°C ,mg/l (max)	-	30	13.10 – 15.10
			♦ Oil & Grease, mg/l (max)	10	10	NT
			♦ Colour	-	absent	absent
			♦ Total Chromium (as Cr), mg/l (max)	-	0.5	Use of Cr+6 is discontinued
			♦ Hexavalent Chromium (as Cr), mg/l (max)	-	0.1	Use of Cr+6 is discontinued
			♦ Zinc (as Zn), mg/l (max)	-	5.0	0.02 – 0.03
			♦ Ammonical Nitrogen (as N), mg/l (max)	50	50	2.20 – 7.75
			♦ Free Ammonia (as N), mg/l	2.0	4	0.04 – 0.35
			♦ Total Kjeldahl Nitrogen (as N), mg/l	75	100	3.66 – 11.20
			♦ COD, mg/l	-	250	87 – 137
			♦ Dissolve Phosphate as P, mg/l	-	5.0	0.98 – 2.28
			♦ Chloride as Cl, mg/l	-	1000	210 – 276
			♦ Nitrate Nitrogen, mg/l	10	-	0.40 - 0.44
			♦ Cynide as CN, mg/l	0.1	0.2	N.A.

STATUS OF IMPLEMENTATION OF POLLUTION CONTROL STANDARDS IN RESPECT OF LIQUID EFFLUENT / GASEOUS EMISSION IN FERTILIZER INDUSTRY

NAME OF THE UNIT: IFFCO AONLA UNIT, BAREILLY (UP)

PERIOD: October – 2024 to March – 2025

1	2	3	4			5
Plant	Type Liquid Effluent / Gaseous Emissions	Pollution item where actual level achieved are higher than the prescribed limits.	Prescribed Standards			Actual levels being achieved (Range)
			Parameters for gaseous emission of Fertiliser Industries	MINAS	State Pollution Control Board (UPPCB)	
a	b	c	d	e	f	g
PRILLING TOWER	Gaseous Emission	"No"				
Urea Plant-I		(Pollution items in Gaseous Emission are well within the prescribed applicable standards.)	♦ Urea Dust, mg/Nm3	50	50	31.16 – 42.10
Urea Plant-II			♦ Urea Dust, mg/Nm3	50	50	29.56 – 40.11
STACKS						
a) Ammonia- I (Reformer Flue Gas)			♦ NOx, mg/Nm3	400	-	86 – 113
			♦ SOx, ppm	Not Prescribed	-	Traces
b) Ammonia- II (Reformer Flue Gas)			♦ NOx, mg/Nm3	400	-	80 – 107
			♦ SOx, ppm	Not Prescribed	-	Traces
c) Ammonia- II (Heat Recovery Unit)			♦ NOx, ppm	Not Prescribed	-	14 - 30
			♦ SOx, ppm	Not Prescribed	-	Traces
d) Power Plant (Steam Generation Boiler)			♦ NOx, ppm	Not Prescribed	-	S/D
			♦ SOx, ppm	Not Prescribed	-	S/D
e) Power Plant (HRSG-I)			♦ NOx, ppm	Not Prescribed	-	47 – 62
			♦ SOx, ppm	Not Prescribed	-	Traces
f) Power Plant (HRSG-II)			♦ NOx, ppm	Not Prescribed	-	44 – 52
			♦ SOx, ppm	Not Prescribed	-	Traces

(S/D – Shut Down)

STATUS OF IMPLEMENTATION OF POLLUTION CONTROL STANDARDS IN RESPECT OF LIQUID EFFLUENT / GASEOUS EMISSION IN FERTILIZER INDUSTRY

NAME OF THE UNIT: IFFCO AONLA UNIT, BAREILLY (UP)

PERIOD: October – 2024 to March – 2025

1	2	3	4			5			
Plant	Type Liquid Effluent / Gaseous Emissions	Pollution item where actual level achieved are higher than the prescribed limits.	Prescribed Standards			Actual levels being achieved (Range)			
			Parameters for Ambient Air Quality	Central Pollution Control Board / NAAQS	State Pollution Control Board (UPPCB)				
a	b	c	d	e	f	g			
AMBIENT AIR MONITORING STATION * (4 nos.)	Gaseous Emission (Ambient Air)	"No" (Pollution items in Gaseous Emission are well within the prescribed applicable standards.)				Ammonia Storage Area	Transportation Office	GET Hostel	Guest House
			PM_{10}, µg/m3	100	100	44 – 56	48 – 58	44 – 56	36 – 48
			$PH_{2.5}$, µg/m3	60	60	30 – 38	30 – 38	30 – 36	26 – 34
			NO_2, µg/m3	80	80	5.20 – 6.90	5.30 – 7.40	5.40 – 6.90	4.50 – 6.20
			SO_2, µg/m3	80	80	4.20 – 5.50	4.10 – 5.90	4.30 – 5.60	3.70 – 5.00
			NH_3, µg/m3	400	400	8.21 – 14.30	9.70 – 15.70	7.93 – 14.10	5.29 – 11.40

* 24 hourly and twice a week measurements.

Annexure – 6

Contact : +91 - 9810243870

Eko Pro Engineers Pvt. Ltd.

(EKO TESTING LABS)®

Competence | Quality | Service

Building Relations

TC-4201

TEST REPORT

Ambient Air Quality Monitoring

Test Report No. : EKO/E-534/240225 **Issue Date : 01/03/2025**

Issued To : INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
Aonla Unit
P.O IFFCO Township
Bareilly

Sample Description	:	Ambient Air
Sample Drawn on	:	21/02/2025 To 22/02/2025
Sample Drawn by	:	EPEPL (Mr. Chandan Sharma)
Sample Received on	:	24/02/2025
Sampling Location	:	Near AEP Store Area
Sampling Time	:	24.0 Hrs.
Sampling Plan & Procedure	:	SOP-AAQ/15
Analysis Duration	:	24/02/2025 To 01/03/2025
Ambient Temperature (°C)	:	23.0
Average Flow Rate of SPM (m^3/min.)	:	1.1
Average Flow Rate of Gases (lpm)	:	1.0
Weather Conditions	:	Clear
Remark (if any)	:	NA

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Notification, 18th Nov 2009
1	Particulate Matter (PM10)	IS: 5182 (P-23)	53.4	µg/m^3	100.0
2	Particulate Matter (PM2.5)	IS: 5182 (P-24)	25.3	µg/m^3	60.0
3	Sulphur Dioxide (as SO_2)	IS: 5182 (P-2)	8.94	µg/m^3	80.0
4	Nitrogen Dioxide (as NO_2)	IS: 5182 (P-6)	16.3	µg/m^3	80.0
5	Carbon Monoxide (as CO)	IS: 5182 (P-10)	0.67	mg/m^3	4.0
6	Ammonia (as NH_3)	IS: 5182 (P-25)	26.8	µg/m^3	400.0

Notes :

1. The results given above are related to the tested sample, for various parameters, as observed at the time of at the time of Sampling. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

**** End of Report ****

For EKO PRO ENGINEERS PVT. LTD.
PURNIMA CHAUHAN
TECHNICAL MANAGER
(Authorised Signatory)
SAVE THE ENVIRONMENT

TEST REPORT

Ambient Air Quality Monitoring

Test Report No. : EKO/E-535/240225 **Issue Date : 01/03/2025**

Issued To : INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
Aonla Unit
P.O IFFCO Township
Bareilly

Sample Description	:	Ambient Air
Sample Drawn on	:	21/02/2025 To 22/02/2025
Sample Drawn by	:	EPEPL (Mr. Chandan Sharma)
Sample Received on	:	24/02/2025
Sampling Location	:	Transportation Office Area
Sampling Time	:	24.0 Hrs.
Sampling Plan & Procedure	:	SOP-AAQ/15
Analysis Duration	:	24/02/2025 To 01/03/2025
Ambient Temperature (°C)	:	23.0
Average Flow Rate of SPM (m^3/min.)	:	1.1
Average Flow Rate of Gases (lpm)	:	1.0
Weather Conditions	:	Clear
Remark (if any)	:	NA

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Notification, 18th Nov 2009
1	Particulate Matter (PM10)	IS: 5182 (P-23)	51.8	µg/m^3	100.0
2	Particulate Matter (PM2.5)	IS: 5182 (P-24)	25.0	µg/m^3	60.0
3	Sulphur Dioxide (as SO_2)	IS: 5182 (P-2)	8.62	µg/m^3	80.0
4	Nitrogen Dioxide (as NO_2)	IS: 5182 (P-6)	17.8	µg/m^3	80.0
5	Carbon Monoxide (as CO)	IS: 5182 (P-10)	0.69	mg/m^3	4.0
6	Ammonia (as NH_3)	IS: 5182 (P-25)	25.9	µg/m^3	400.0

Notes :

1. The results given above are related to the tested sample, for various parameters, as observed at the time of at the time of Sampling. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

**** End of Report ****

For EKO PRO ENGINEERS PVT. LTD.
PURNIMA CHAUHAN
TECHNICAL MANAGER
(Authorised Signatory)
EKO PRO ENGINEERS PVT. LTD. GHAZIABAD SAVE THE ENVIRONMENT

TEST REPORT

Ambient Air Quality Monitoring

Test Report No. : EKO/E-536/240225 **Issue Date : 01/03/2025**

Issued To : INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
Aonla Unit
P.O IFFCO Township
Bareilly

Sample Description	: Ambient Air
Sample Drawn on	: 20/02/2025 To 21/02/2025
Sample Drawn by	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 24/02/2025
Sampling Location	: GET Hostel
Sampling Time	: 24.0 Hrs.
Sampling Plan & Procedure	: SOP-AAQ/15
Analysis Duration	: 24/02/2025 To 01/03/2025
Ambient Temperature (°C)	: 23.0
Average Flow Rate of SPM (m^3/min.)	: 1.1
Average Flow Rate of Gases (lpm)	: 1.0
Weather Conditions	: Clear
Remark (if any)	: NA

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Notification, 18th Nov 2009
1	Particulate Matter (PM10)	IS: 5182 (P-23)	54.2	$\mu g/m^3$	100.0
2	Particulate Matter (PM2.5)	IS: 5182 (P-24)	25.9	$\mu g/m^3$	60.0
3	Sulphur Dioxide (as SO_2)	IS: 5182 (P-2)	9.26	$\mu g/m^3$	80.0
4	Nitrogen Dioxide (as NO_2)	IS: 5182 (P-6)	18.2	$\mu g/m^3$	80.0
5	Carbon Monoxide (as CO)	IS: 5182 (P-10)	0.64	mg/m^3	4.0
6	Ammonia (as NH_3)	IS: 5182 (P-25)	21.8	$\mu g/m^3$	400.0

Notes :

1. The results given above are related to the tested sample, for various parameters, as observed at the time of at the time of Sampling. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

**** End of Report ****

For EKO PRO ENGINEERS PVT. LTD.
PURNIMA CHAUHAN
TECHNICAL MANAGER
(Authorised Signatory)

EKO PRO ENGINEERS PVT. LTD. SAVE THE ENVIRONMENT

TEST REPORT

Ambient Air Quality Monitoring

Test Report No. : EKO/E-537/240225 **Issue Date : 01/03/2025**

Issued To : INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
Aonla Unit
P.O IFFCO Township
Bareilly

Sample Description	:	Ambient Air
Sample Drawn on	:	20/02/2025 To 21/02/2025
Sample Drawn by	:	EPEPL (Mr. Chandan Sharma)
Sample Received on	:	24/02/2025
Sampling Location	:	Guest House Canteen
Sampling Time	:	24.0 Hrs.
Sampling Plan & Procedure	:	SOP-AAQ/15
Analysis Duration	:	24/02/2025 To 01/03/2025
Ambient Temperature (°C)	:	23.0
Average Flow Rate of SPM (m^3/min.)	:	1.1
Average Flow Rate of Gases (lpm)	:	1.0
Weather Conditions	:	Clear
Remark (if any)	:	NA

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Notification, 18th Nov 2009
1	Particulate Matter (PM10)	IS: 5182 (P-23)	54.9	$\mu g/m^3$	100.0
2	Particulate Matter (PM2.5)	IS: 5182 (P-24)	26.1	$\mu g/m^3$	60.0
3	Sulphur Dioxide (as SO_2)	IS: 5182 (P-2)	9.14	$\mu g/m^3$	80.0
4	Nitrogen Dioxide (as NO_2)	IS: 5182 (P-6)	17.5	$\mu g/m^3$	80.0
5	Carbon Monoxide (as CO)	IS: 5182 (P-10)	0.65	mg/m^3	4.0
6	Ammonia (as NH_3)	IS: 5182 (P-25)	24.3	$\mu g/m^3$	400.0

Notes :

1. The results given above are related to the tested sample, for various parameters, as observed at the time of at the time of Sampling. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

**** End of Report ****

For EKO PRO ENGINEERS PVT. LTD.
PURNIMA CHAUHAN
TECHNICAL MANAGER
(Authorised Signatory)

Contact : +91 - 9810243870

Eko Pro Engineers Pvt. Ltd.

(EKO TESTING LABS)®

Building Relations

Competence | Quality | Service

TC-4201

TEST REPORT

Stack Emission Analysis

Test Report No. : EKO/E-541/240225 **Issue Date : 01/03/2025**

Issued To : INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
Aonla Unit
P.O IFFCO Township
Bareilly

Sample Description	: Stack Emission
Sample Drawn on	: 22/02/2025
Sample Drawn By	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 24/02/2025
Time of Sampling (Minutes)	: 30.0
Sampling Location	: PRO - I
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 24/02/2025 To 01/03/2025
Source of Emission	: Attached with Primary Reformer Ammonia-I
Capacity	: NA
Operating Load	: Normal
Normal Operation Schedule	: As per requirement
Type of Stack	: MS
Height of Stack from Ground Level (meter)	: 30.0
Type of Fuel Used	: Natural gas
Ambient Temperature (deg.C)	: 23.0
Stack Temperature (deg.C)	: 134.0
Average Velocity of Flue Emission (m/sec)	: 11.5
Average Flow Rate (lpm)	: 17.8
Remark (if any)	: NA

RESULTS

S.No.	PARAMETER	TEST METHOD	RESULT	UNIT
1	Sulphur dioxide (as SO_2)	IS :11255 (P-2)	Not Detected	mg/Nm^3
2	Oxides of Nitrogen (as NO_x)	IS :11255 (P-7)	56.2	mg/Nm^3

Notes :

1. The results given above are related to the tested sample, for various parameters, as observed at the time of sampling. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after two weeks from the date of issued of test report, unless until specified by the customer.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

*** * End of Report * ***

For EKO PRO ENGINEERS PVT. LTD.
PURNIMA CHAUHAN
TECHNICAL MANAGER
(Authorised Signatory)

EKO PRO ENGINEERS PVT. LTD. GHAZIABAD SAVE THE ENVIRONMENT

Contact :-+91 - 9810243870

Eko Pro Engineers Pvt. Ltd.
(EKO TESTING LABS)®
Competence | Quality | Service
Building Relations

TC-4201

TEST REPORT

Stack Emission Analysis

Test Report No. : EKO/E-542/240225 **Issue Date : 01/03/2025**

Issued To : INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
Aonla Unit
P.O IFFCO Township
Bareilly

Sample Description	: Stack Emission
Sample Drawn on	: 22/02/2025
Sample Drawn By	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 24/02/2025
Time of Sampling (Minutes)	: 30.0
Sampling Location	: PRO - II
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 24/02/2025 To 01/03/2025
Source of Emission	: Attached with Primary Reformer Ammonia-II
Capacity	: NA
Operating Load	: Normal
Normal Operation Schedule	: As per requirement
Type of Stack	: MS
Height of Stack from Ground Level (meter)	: 30.0
Type of Fuel Used	: Natural gas
Ambient Temperature (deg.C)	: 23.0
Stack Temperature (deg.C)	: 132.0
Average Velocity of Flue Emission (m/sec)	: 11.5
Average Flow Rate (lpm)	: 18.4
Remark (if any)	: NA

RESULTS

S.No.	PARAMETER	TEST METHOD	RESULT	UNIT
1	Sulphur dioxide (as SO_2)	IS :11255 (P-2)	Not Detected	mg/Nm^3
2	Oxides of Nitrogen (as NO_x)	IS :11255 (P-7)	55.9	mg/Nm^3

Notes :

1. The results given above are related to the tested sample, for various parameters, as observed at the time of sampling. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after two weeks from the date of issued of test report, unless until specified by the customer.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

*** * End of Report * ***

For EKO PRO ENGINEERS PVT. LTD.
PURNIMA CHAUHAN
TECHNICAL MANAGER
(Authorised Signatory)

Contact : +91 - 9810243870

Eko Pro Engineers Pvt. Ltd.
(EKO TESTING LABS)®
Competence | Quality | Service
Building Relations

TC-4201

TEST REPORT

Stack Emission Analysis

Test Report No. : EKO/E-543/240225 **Issue Date : 01/03/2025**

Issued To : INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
Aonla Unit
P.O IFFCO Township
Bareilly

Sample Description	: Stack Emission
Sample Drawn on	: 21/02/2025
Sample Drawn By	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 24/02/2025
Time of Sampling (Minutes)	: 30.0
Sampling Location	: HRSG - II
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 24/02/2025 To 01/03/2025
Source of Emission	: Attached with HRSG Power Plant - II
Capacity	: NA
Operating Load	: Normal
Normal Operation Schedule	: As per requirement
Type of Stack	: CS
Height of Stack from Ground Level (meter)	: 30.0
Type of Fuel Used	: Natural gas
Ambient Temperature (deg.C)	: 23.0
Stack Temperature (deg.C)	: 164.0
Average Velocity of Flue Emission (m/sec)	: 12.4
Average Flow Rate (lpm)	: 16.8
Remark (if any)	: NA

RESULTS

S.No.	PARAMETER	TEST METHOD	RESULT	UNIT
1	Sulphur dioxide (as SO_2)	IS :11255 (P-2)	Not Detected	ppm
2	Oxides of Nitrogen (as NO_x)	IS :11255 (P-7)	40.9	ppm

Notes :

1. The results given above are related to the tested sample, for various parameters, as observed at the time of sampling. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after two weeks from the date of issued of test report, unless until specified by the customer.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

*** * End of Report * ***

For EKO PRO ENGINEERS PVT. LTD.
PURNIMA CHAUHAN
TECHNICAL MANAGER
(Authorised Signatory)

Contact : +91 - 9810243870

TEST REPORT

Stack Emission Analysis

Test Report No. : EKO/E-545/240225 **Issue Date : 01/03/2025**

Issued To : INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
Aonla Unit
P.O IFFCO Township
Bareilly

Sample Description	: Stack Emission
Sample Drawn on	: 21/02/2025
Sample Drawn By	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 24/02/2025
Time of Sampling (Minutes)	: 30.0
Sampling Location	: HRSG - I
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 24/02/2025 To 01/03/2025
Source of Emission	: Attached with HRSG Power Plant - I
Capacity	: NA
Operating Load	: Normal
Normal Operation Schedule	: As per requirement
Type of Stack	: CS
Height of Stack from Ground Level (meter)	: 30.0
Type of Fuel Used	: Natural gas
Ambient Temperature (deg.C)	: 23.0
Stack Temperature (deg.C)	: 142.0
Average Velocity of Flue Emission (m/sec)	: 11.5
Average Flow Rate (lpm)	: 16.9
Remark (if any)	: NA

RESULTS

S.No.	PARAMETER	TEST METHOD	RESULT	UNIT
1	Sulphur dioxide (as SO_2)	IS :11255 (P-2)	Not Detected	ppm
2	Oxides of Nitrogen (as NO_x)	IS :11255 (P-7)	36.4	ppm

Notes :

1. The results given above are related to the tested sample, for various parameters, as observed at the time of sampling. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after two weeks from the date of issued of test report, unless until specified by the customer.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

*** * End of Report * ***

For EKO PRO ENGINEERS PVT. LTD.
PURNIMA CHAUHAN
TECHNICAL MANAGER
(Authorised Signatory)

EKO PRO ENGINEERS PVT. LTD. GHAZIABAD SAVE THE ENVIRONMENT

TEST REPORT

Stack Emission Analysis

Test Report No. : EKO/E-544/240225 **Issue Date : 01/03/2025**

Issued To : INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
Aonla Unit
P.O IFFCO Township
Bareilly

Sample Description	: Stack Emission
Sample Drawn on	: 22/02/2025
Sample Drawn By	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 24/02/2025
Time of Sampling (Minutes)	: 30.0
Sampling Location	: HRU
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 24/02/2025 To 01/03/2025
Source of Emission	: Attached with HRU Ammonia-II
Capacity	: NA
Operating Load	: Normal
Normal Operation Schedule	: As per requirement
Type of Stack	: MS
Height of Stack from Ground Level (meter)	: 30.0
Type of Fuel Used	: Natural gas
Ambient Temperature (deg.C)	: 23.0
Stack Temperature (deg.C)	: 132.0
Average Velocity of Flue Emission (m/sec)	: 11.8
Average Flow Rate (lpm)	: 17.4
Remark (if any)	: NA

RESULTS

S.No.	PARAMETER	TEST METHOD	RESULT	UNIT
1	Sulphur dioxide (as SO_2)	IS :11255 (P-2)	Not Detected	ppm
2	Oxides of Nitrogen (as NO_x)	IS :11255 (P-7)	38.4	ppm

Notes :

1. The results given above are related to the tested sample, for various parameters, as observed at the time of sampling. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after two weeks from the date of issued of test report, unless until specified by the customer.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

*** * End of Report * ***

For EKO PRO ENGINEERS PVT. LTD.
PURNIMA CHAUHAN
TECHNICAL MANAGER
(Authorised Signatory)

TEST REPORT

Stack Emission Analysis

Test Report No. : EKO/E-546/240225 **Issue Date : 01/03/2025**

Issued To : INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
Aonla Unit
P.O IFFCO Township
Bareilly

Sample Description	: Stack Process Emission
Sample Drawn on	: 21/02/2025
Sample Drawn By	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 24/02/2025
Time of Sampling (Minutes)	: 30.0
Sampling Location	: Urea - I
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 24/02/2025 To 01/03/2025
Source of Emission	: Prill Tower - I
Type of Stack	: RCC
Height of Stack from Ground Level (meter)	: 112.0
Ambient Temperature (deg.C)	: 23.0
Remark (if any)	: NA

RESULTS

S.No.	PARAMETER	TEST METHOD	RESULT	UNIT
1	Particulate Matter (as PM)	IS :11255 (P-1)	36.2	mg/Nm^3
2	Ammonia (as NH_3)	IS :11255 (P-6)	40.9	ppm

Notes :

1. The results given above are related to the tested sample, for various parameters, as observed at the time of sampling. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after two weeks from the date of issued of test report, unless until specified by the customer.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

*** * End of Report * ***

For EKO PRO ENGINEERS PVT. LTD.
PURNIMA CHAUHAN
TECHNICAL MANAGER
(Authorised Signatory)

TEST REPORT

Stack Emission Analysis

Test Report No. : EKO/E-547/240225 **Issue Date : 01/03/2025**

Issued To : INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
Aonla Unit
P.O IFFCO Township
Bareilly

Sample Description	: Stack Process Emission
Sample Drawn on	: 21/02/2025
Sample Drawn By	: EPEPL (Mr. Chandan Sharma)
Sample Received on	: 24/02/2025
Time of Sampling (Minutes)	: 30.0
Sampling Location	: Urea - II
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 24/02/2025 To 01/03/2025
Source of Emission	: Prill Tower - II
Type of Stack	: RCC
Height of Stack from Ground Level (meter)	: 110.0
Ambient Temperature (deg.C)	: 23.0
Remark (if any)	: NA

RESULTS

S.No.	PARAMETER	TEST METHOD	RESULT	UNIT
1	Particulate Matter (as PM)	IS :11255 (P-1)	32.4	mg/Nm^3
2	Ammonia (as NH_3)	IS :11255 (P-6)	41.6	ppm

Notes :

1. The results given above are related to the tested sample, for various parameters, as observed at the time of sampling. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after two weeks from the date of issued of test report, unless until specified by the customer.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

*** * End of Report * ***

For EKO PRO ENGINEERS PVT. LTD.
PURNIMA CHAUHAN
TECHNICAL MANAGER
(Authorised Signatory)

TEST REPORT

Effluent Sample Analysis

Test Report No. : EKO/E-538/240225-A **Issue Date : 01/03/2025**

Issued To : INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
Aonla Unit
P.O IFFCO Township
Bareilly

Sample Description	:	Effluent Sample (Factory Discharge)
Sample Drawn on	:	21/02/2025
Sample Drawn by	:	EPEPL (Mr. Chandan Sharma)
Sample Received on	:	24/02/2025
Sampling Location	:	Final Outlet
Sampling Plan & Procedure	:	SOP-W/66
Sample Quantity	:	2.0 Litre
Environmental Condition	:	Normal
Analysis Duration	:	24/02/2025 To 01/03/2025
Remark (if any)	:	NA

RESULTS

S. No.	Parameters	Test Method	Results	Units	Limits as per EPA
1	pH	IS: 3025 (P-11) 2.0: 2022	7.38	-	5.5 - 9.0
2	Odour	IS: 3025 (P-5) : 2018	Odourless	-	Odourless
3	Total Dissolved Solids	IS: 3025 (P-16):2023	1460.0	mg/L	-
4	Total Suspended Solids	IS:3025(Part-17): 2022	74	mg/L	100.0
5	Oil & Grease	IS:3025 (Part-39)-F : 2021	4.3	mg/L	10.0
6	COD (as O_2)	IS 3025 (Part 58): 2006	112.4	mg/L	250.0
7	BOD (@27°C for 3 days)	IS 3025 (Part 44): 1993	19.0	mg/L	30.0
8	Temperature	IS : 3025 (P-9)	24.8	°C	-
9	Ammonical Nitrogen (as N)	APHA 4500 NH_3C	6.92	mg/L	50.0
10	Free Ammonia (as NH3)	IS : 3025 (P-34)	<1.0	mg/L	5.0
11	Nitrate Nitrogen (as N)	IS : 3025 (P-34)	2.86	mg/L	10.0
12	Total Kjeldahl Nitrogen (as TKN)	APHA 4500 N	13.7	mg/L	100.0
13	Phosphate Diss. (as P)	IS : 3025 (P-31)	1.42	mg/L	5.0
14	Zinc (as Zn)	APHA 3125 B	0.24	mg/L	5.0
15	Sulphate (as SO4)	IS : 3025 (P-24)	180.2	mg/L	-

Notes :

1. The results given above are related to the tested sample, as received & mentioned parameters.
   The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

****End of Report****

For EKO PRO ENGINEERS PVT. LTD.
PURNIMA GUPTA
TECHNICAL MANAGER
Authorised Signatory

Contact : +91 - 9810243870

Eko Pro Engineers Pvt. Ltd.

(EKO TESTING LABS)®

Competence | Quality | Service

Building Relations

TEST REPORT

Effluent Sample Analysis

Test Report No. : EKO/E-538/240225-B **Issue Date : 01/03/2025**

Issued To : INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
Aonla Unit
P.O IFFCO Township
Bareilly

Sample Description	:	Effluent Sample (Factory Discharge)
Sample Drawn on	:	21/02/2025
Sample Drawn by	:	EPEPL (Mr. Chandan Sharma)
Sample Received on	:	24/02/2025
Sampling Location	:	Final Outlet
Sampling Plan & Procedure	:	SOP-W/66
Sample Quantity	:	2.0 Litre
Environmental Condition	:	Normal
Analysis Duration	:	24/02/2025 To 01/03/2025
Remark (if any)	:	NA

RESULTS

S. No.	Parameters	Test Method	Results	Units	Limits as per EPA
1	Colour	Visual	Colourless	-	Colourless

Notes :

1. The results given above are related to the tested sample, as received & mentioned parameters.
   The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

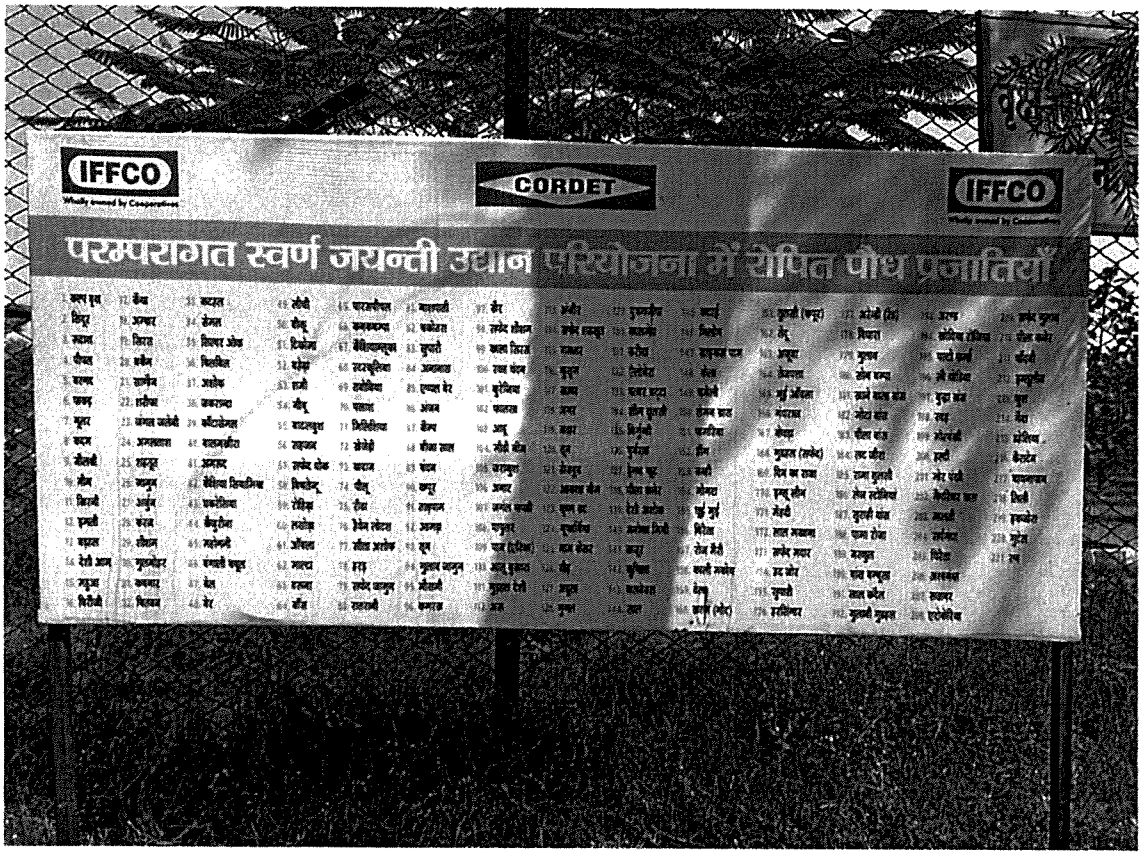
****End of Report****

For EKO PRO ENGINEERS PVT. LTD.
PURNIMA CHAUHAN
TECHNICAL MANAGER
(Authorised Signatory)

EKO PRO ENGINEERS PVT. LTD. GHAZIABAD SAVE THE ENVIRONMENT

Annexure-7

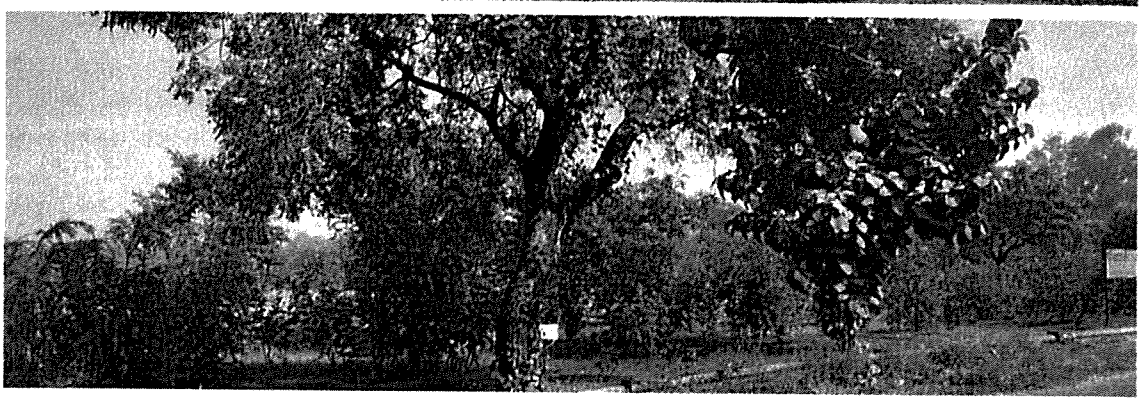

IFFCO
Wholly owned by Cooperatives
CORDET
इस वृक्षारोपण में परम्परागत रुप से पाई जानेवाली अनेक महत्वपूर्ण प्रजातियों जैसे - देशी आम, महुआ, कैथा, बडहल, सिरनी, लसोड़ा, इमली, जामुन एवं इस प्रकार की 221 प्रजातियों, जिनके वृक्ष अब बहुत कम लगाये जा रहे है, को रोपित कर जैव विविधता संरक्षण का अत्यन्त महत्वपूर्ण कार्य किया जा रहा है।
रोपण वर्ष 2018 के बीस पच्चीस वर्ष बाद इन दुर्लभ प्रजातियों के विशाल वृक्ष इस परिसर में मिलेगें, जो आगामी पीढ़ी को एक अनमोल धरोहर होगी।


IFFCO
CORDET
IFFCO
परम्परागत स्वर्ण जयन्ती उद्यान परिसर में रोपित पौध प्रजातियाँ


मियावाकी उद्यान


मियावाकी उद्यान


मियावाकी उद्यान



Annexure-8

Annual EMP Statement for year 2024-25

PARTICULARS	RECURRING EXPENDITURE ON EMP (Rs. Lakhs)
Solid Waste Management	76.61
Environmental Lab Expense	5.03
Maintenance of Environmental Instruments	7.14
Third Party Environmental Monitoring	1.18
Employee salary on Environmental Management including EMC	1027.50
Chemicals Used in ETP & Wastewater recycle	52.97
Electricity consumption in ETP	73.18
Rain water harvesting	183.2
Green belt development	141.83
Cost of STP operation	272.75
Total (In Rs. Lakhs)	**1841.39**

S.C. Pandey
Dy. General Manager (EPC)
IFFCO Aonla Unit
Bareilly-243403 (U.P.)

Name of species planted in year 2024-25

Sr. No.	Name of plants	Number
1	Mango	42
2	Aloo Bukhara	53
3	Aloeverra	48
4	Amaltas	83
5	Ambar	28
6	Amrood	143
7	Anar	111
8	Anjan	50
9	Anjir	50
10	Aonla	235
11	Aonla Bhui	62
12	Apple Ber	81
13	Arjun	1761
14	Aru	55
15	Ashok	102
16	Badhal	47
17	Badam	45
18	Baken	24
19	Balam Kheera	50
20	Banana	60
21	Bargad	14
22	Bel	60
23	Bhrigraaj	65
24	Bottle Brush	1

S.C. Pandey
Dy. General Manager (EPC)
IFFCO Aonla Unit
Bareilly-243403 (U.P.)

25	Brahmi	41
26	Champa	43
27	Chandani	10
28	Chiraunji	50
29	Dhak	60
30	Dragan Fruit	51
31	Faikash	12
32	Falsa	50
33	Gambhar	50
34	Gudhal	13
35	Gurmar	59
36	Gold Mohar	41
37	Haldu	45
38	Haran	56
39	Heeng	25
40	Imli	110
41	Insulin	17
42	Jaifal	50
43	Jamun	308
44	Jamun Jamwant	49
45	Kadam	2
46	Kaitha	59
47	Kaju	44
48	Kaner	36

S.C. Pandey
Dy. General Manager (EPC)
IFFCO Aonla Unit
Bareilly-243403 (U.P.)

49	Kanji	1522
50	Karanj	75
51	Karaunda	68
52	Kathal	92
53	Khair	45
54	Laila Majhanu	50
55	Lasoda	18
56	Laung	50
57	Lichi	50
58	Madar	36
59	Mahogni	50
60	Molshree	4
61	Nashpati	44
62	Neem	710
63	Nimbu	304
64	Orange	50
65	Papaya	50
66	Pedunda	20
67	Peltaphoram	48
68	Pendi Setam Waringi	70
69	Pendi Setam Par Urium	70
70	Popular	49
71	Pakad	5
72	Rakt Chandan	50
73	Ramfal	50
74	Rat ki Rani	1

S.C. Pandey
Dy. General Manager (EPC)
IFFCO Aonla Unit
Bareilly-243403 (U.P.)

75	Ritha	52
76	Rohini	50
77	Rojwood	50
78	Safed Chandni	63
79	Safed Musali	69
80	Sahtoot	31
81	Sagaun	176
82	Sahjan	29
83	Samudraphal	50
84	Sarpgandha	25
85	Sharifa	48
86	Sheesham	620
87	Silai googal	50
88	Silver Oak	29
89	Sterculia	45
90	Tejpatta	50
91	Tendu	50
92	Tulsi	30
93	Tulsi Rama	56
94	Varun	10
95	Veejashaal	58
	Total	**9773**

Survival Rate: 70%

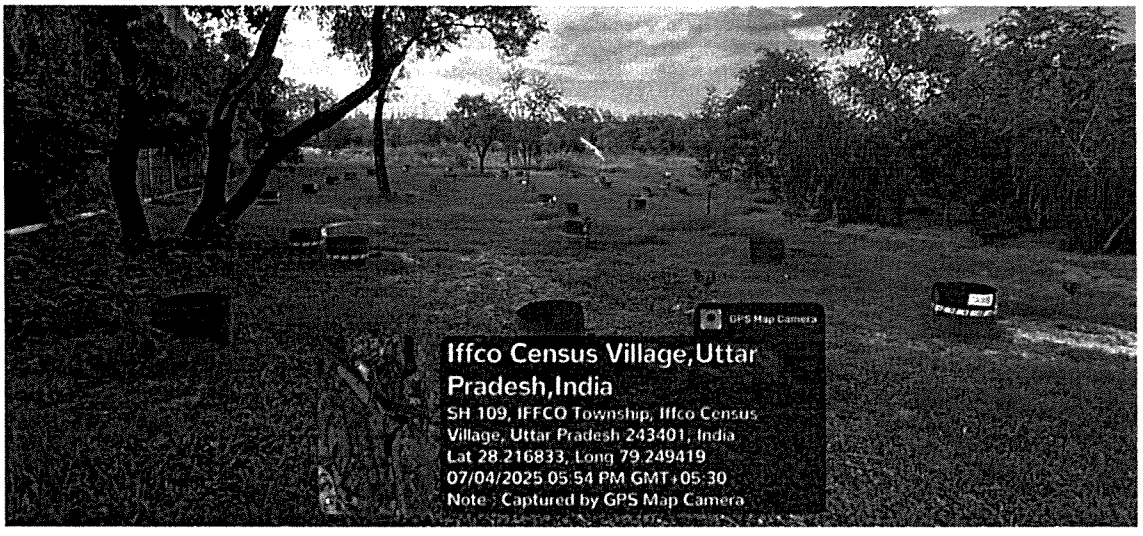
Details of expert agency engaged: Horticulture section IFFCO & CORDET

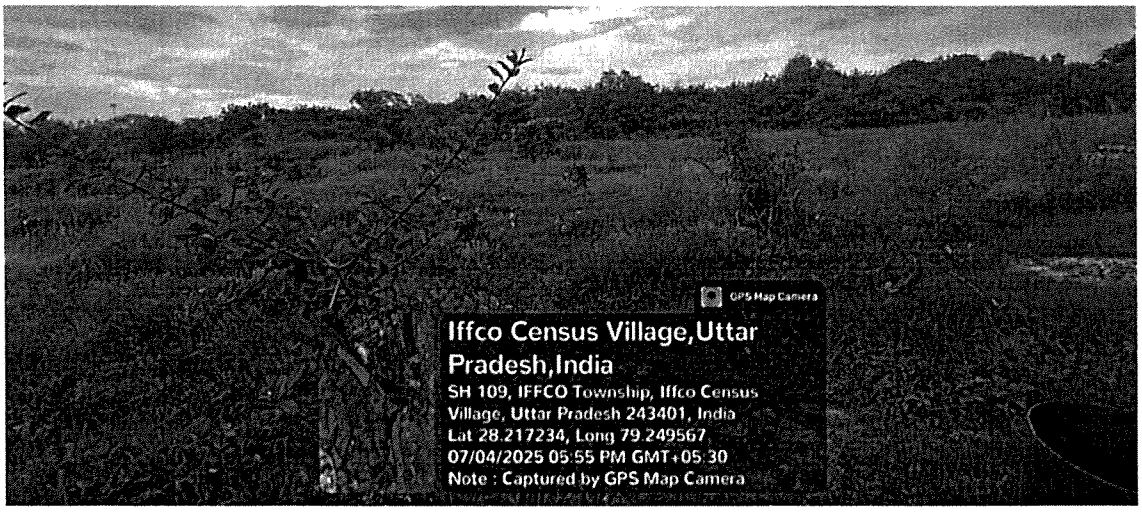
S.C. Pandey
General Manager (EPC)
IFFCO Aonla Unit
243403 (U.P.)

Photographs before Plantation

S.C. Pandey
Dy. General Manager (EPC)
IFFCO Aonla Unit
Bareilly-243403 (U.P.)

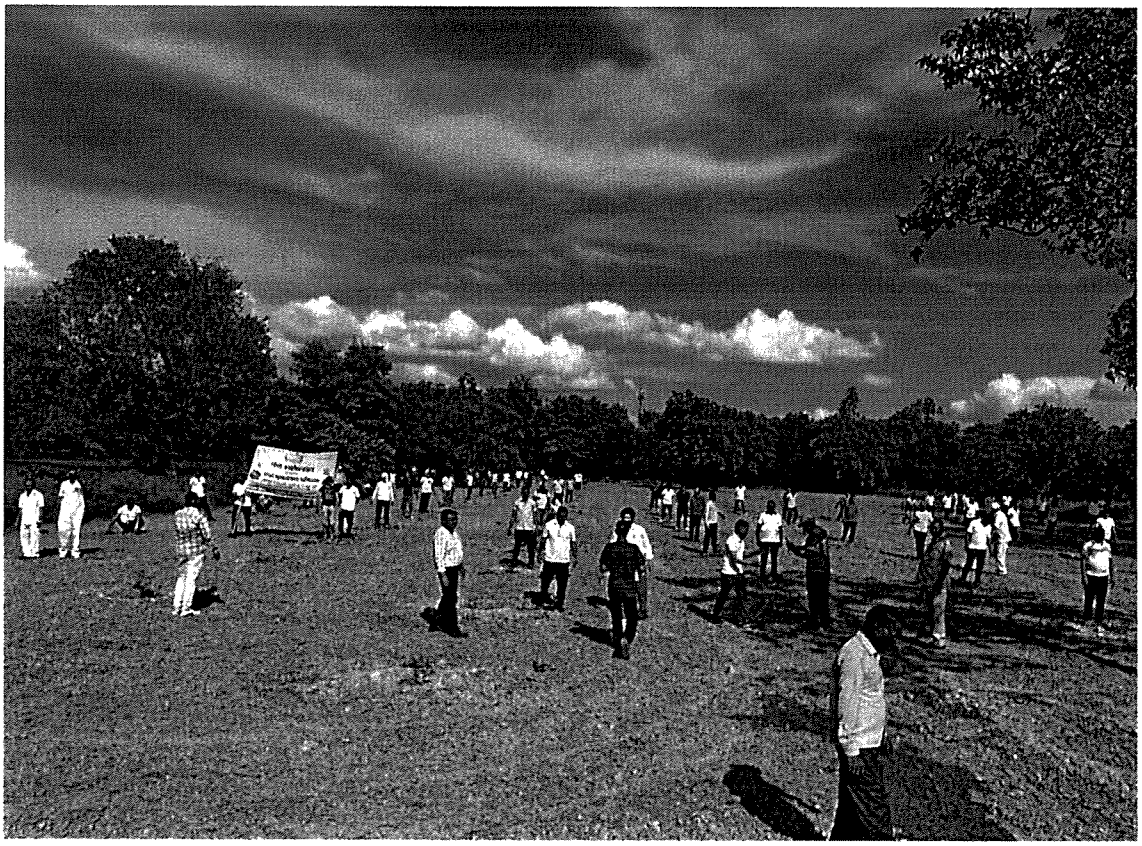
Photographs after Plantation





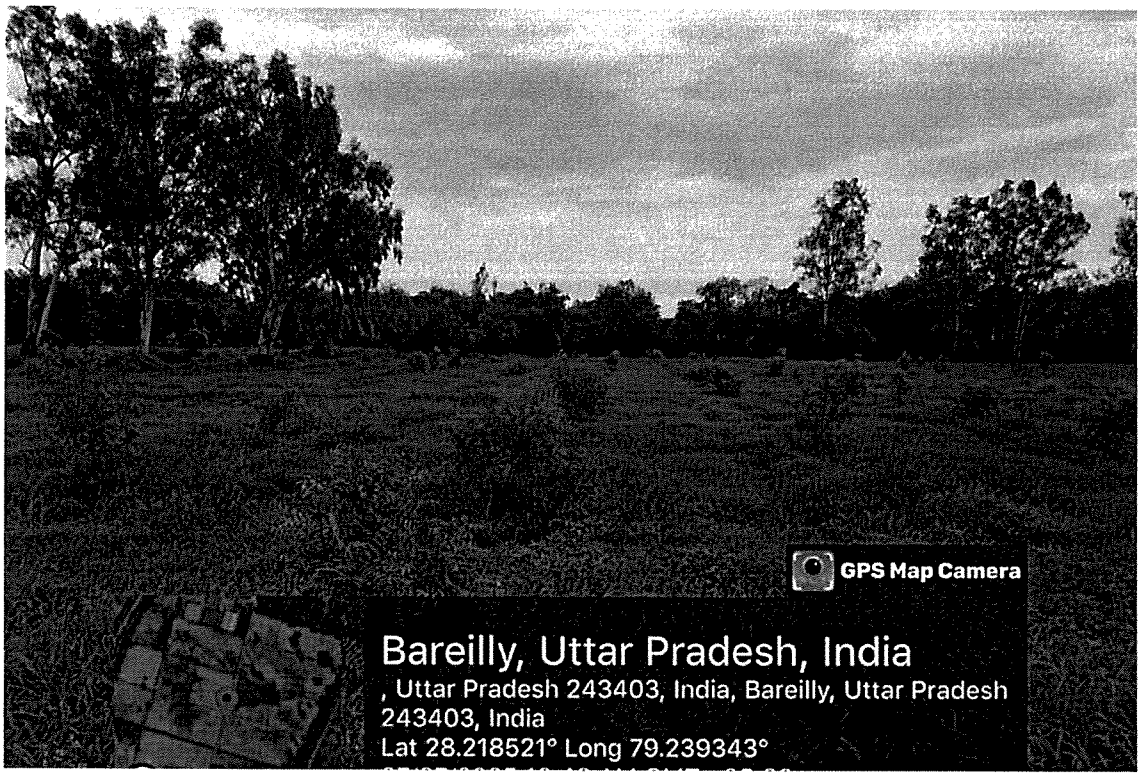
S.C. Pandey
Dy. General Manager (EPC)
IFFCO Aonla Unit
Bareilly-243403 (U.P.)

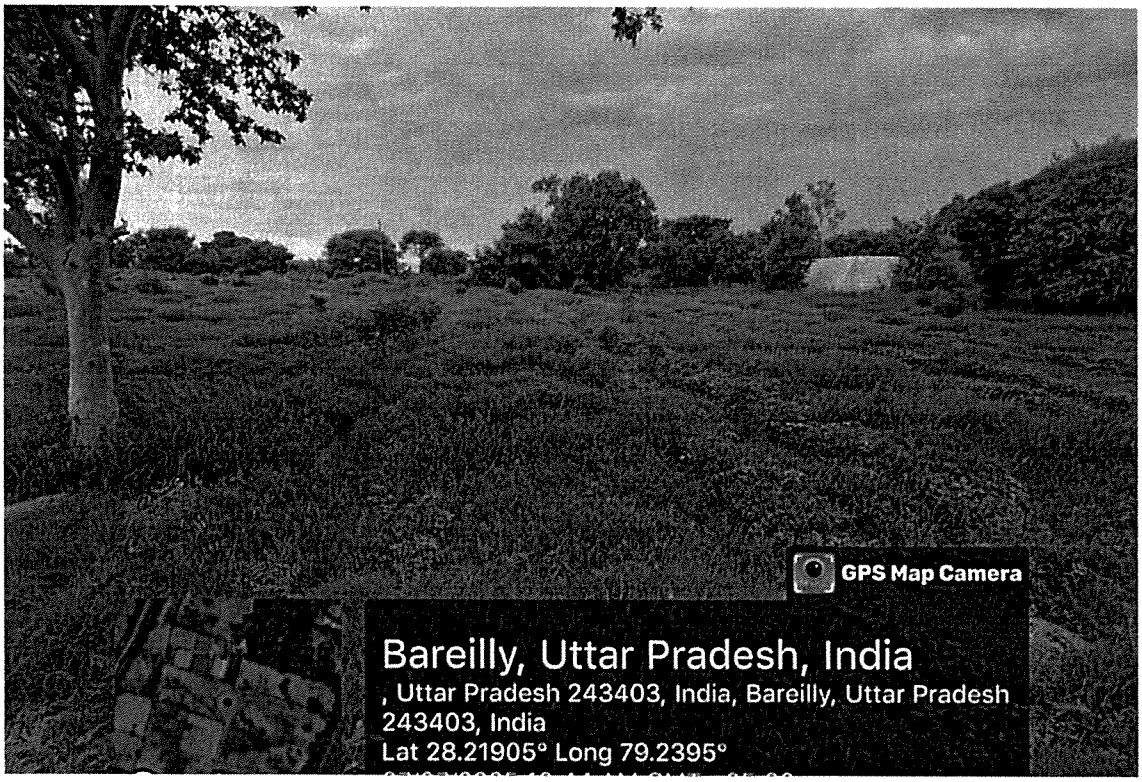
Photographs before Plantation



S.C. Pandey
Dy. General Manager (EPC)
IFFCO Aonla Unit
Bareilly-243403 (U.P.)

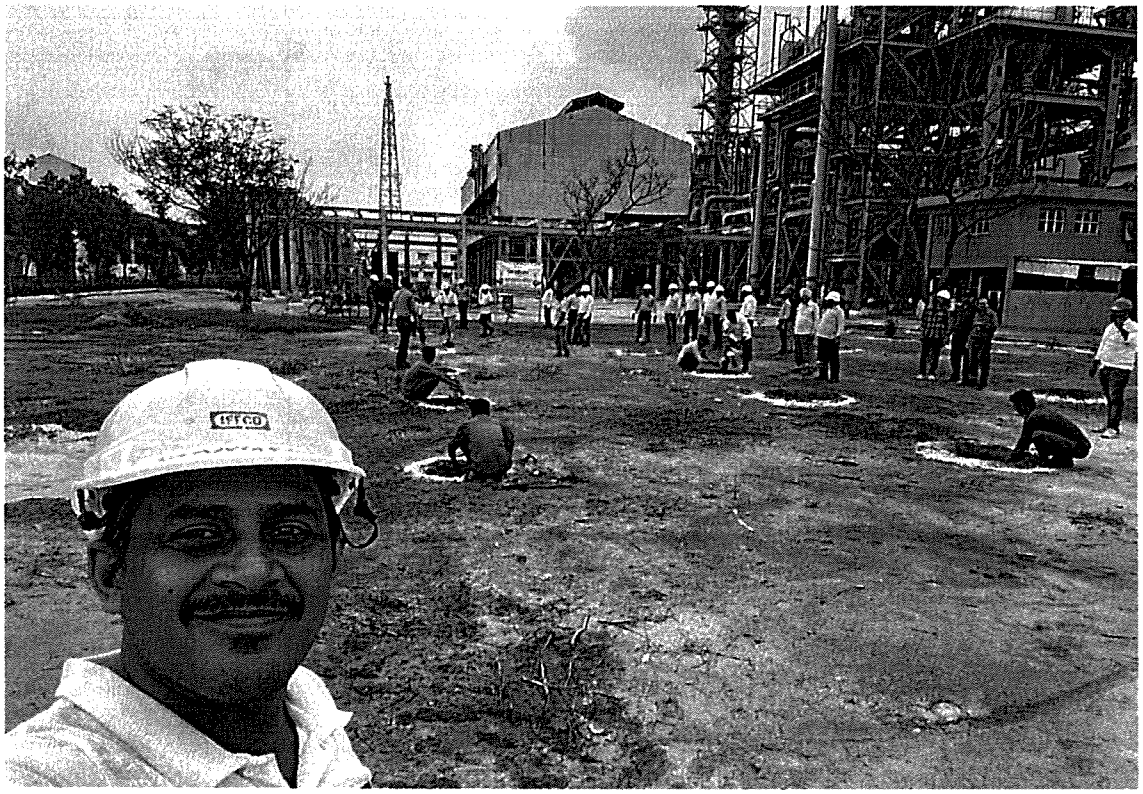
Photographs after Plantation

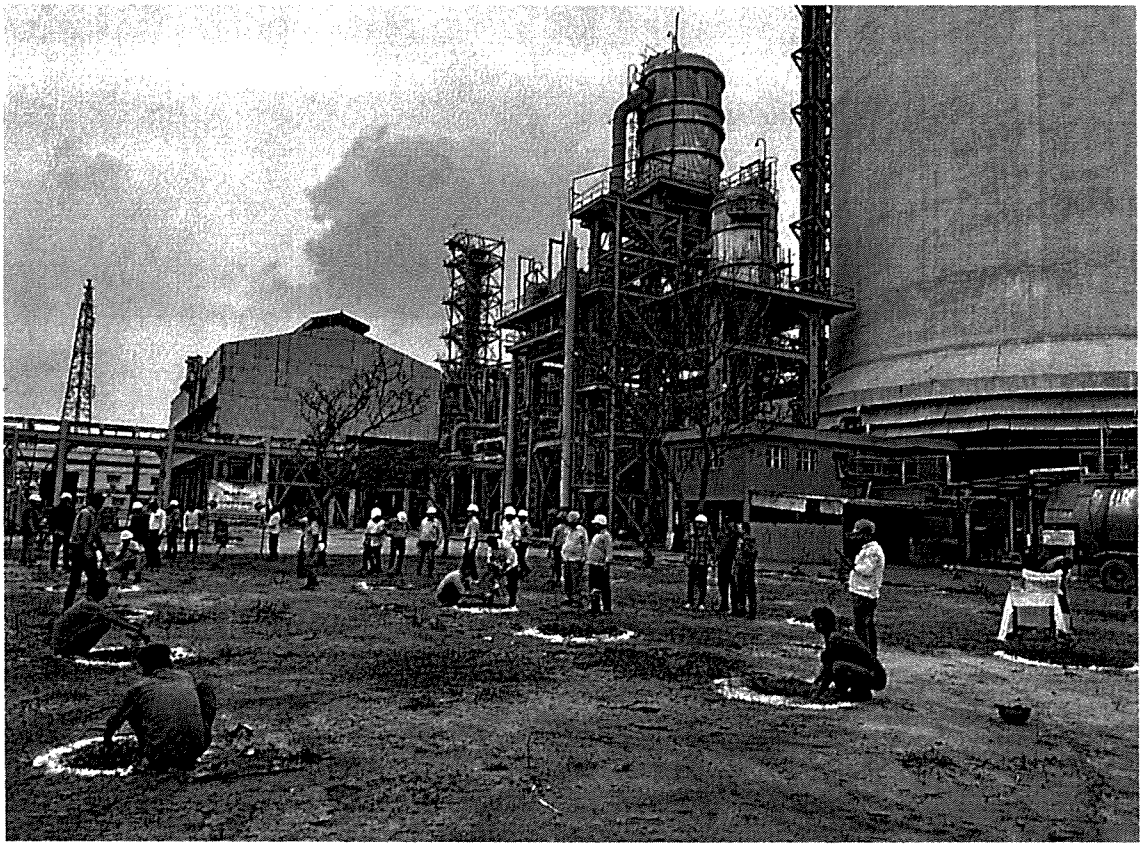




S.C. Pandey
Dy. General Manager (EPC)
IFFCO Aonla Unit
Bareilly-243403 (U.P.)

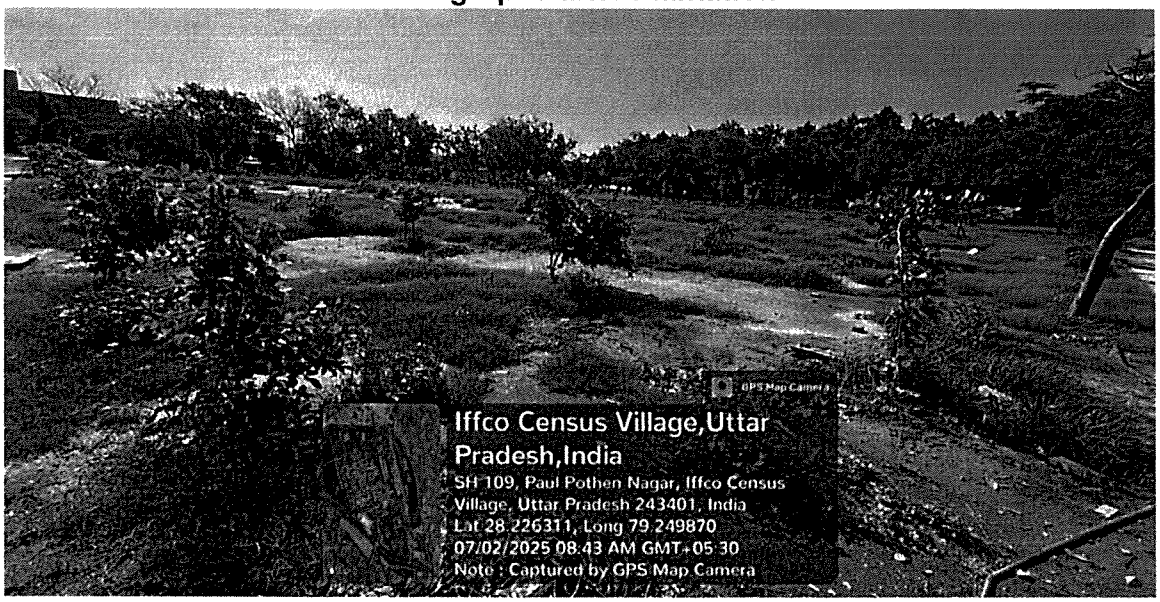
Photographs before Plantation

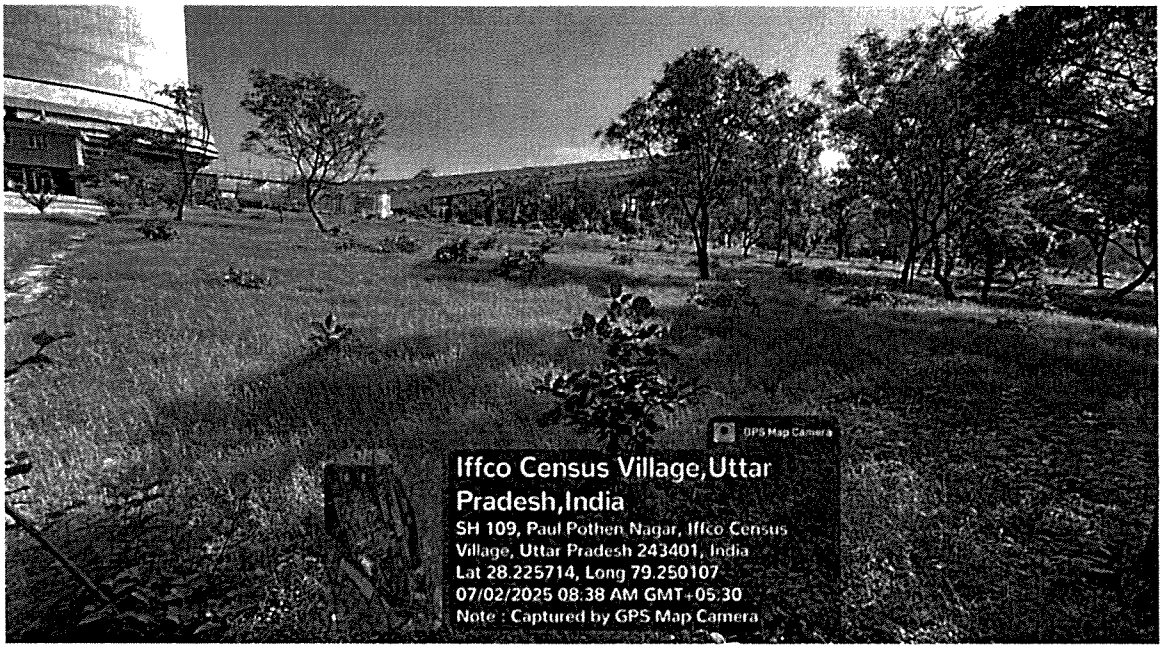




S.C. Pandey
Dy. General Manager (EPC)
IFFCO Aonla Unit
Bareilly-243403 (U.P.)

Photographs after Plantation

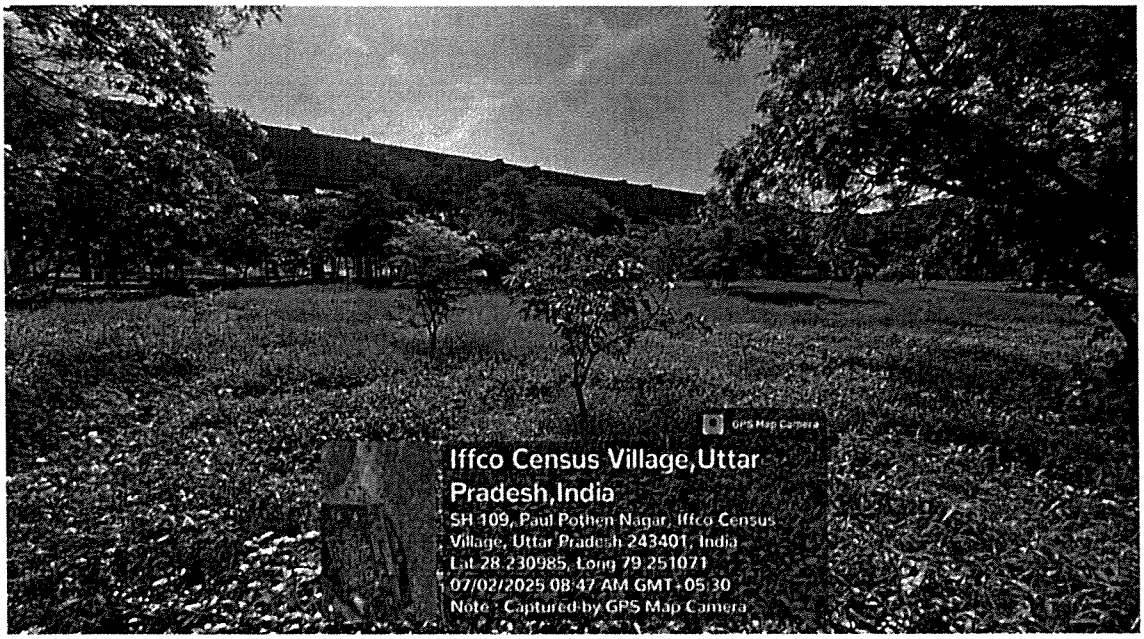




S.C. Pandey
Dy. General Manager (EPC)
IFFCO Aonla Unit
Bareilly-243403 (U.P.)

Photograph before Plantation

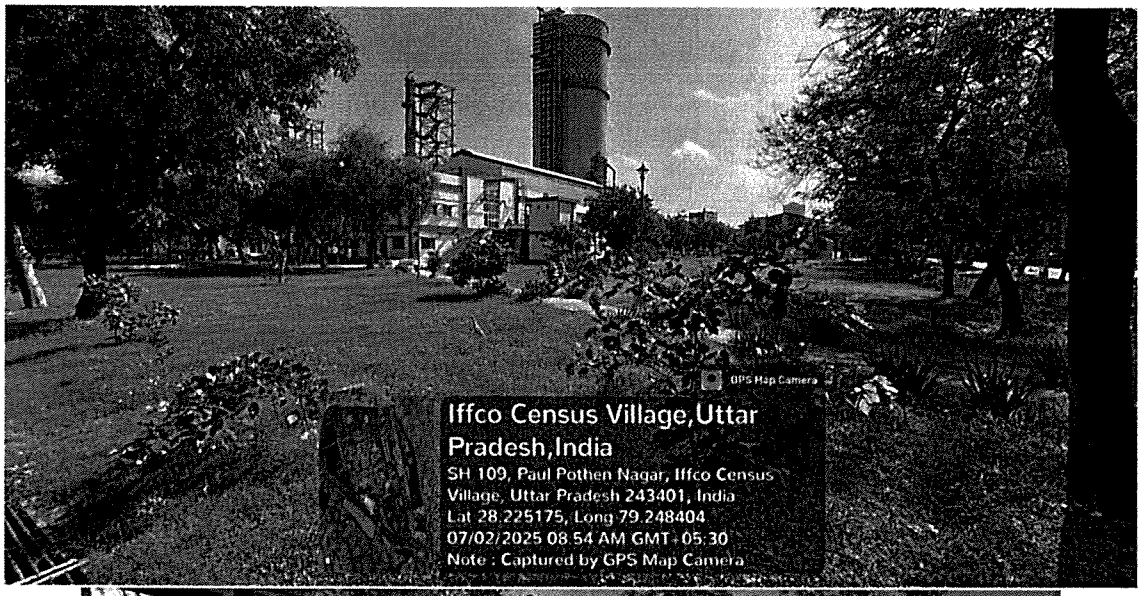
Photograph after Plantation

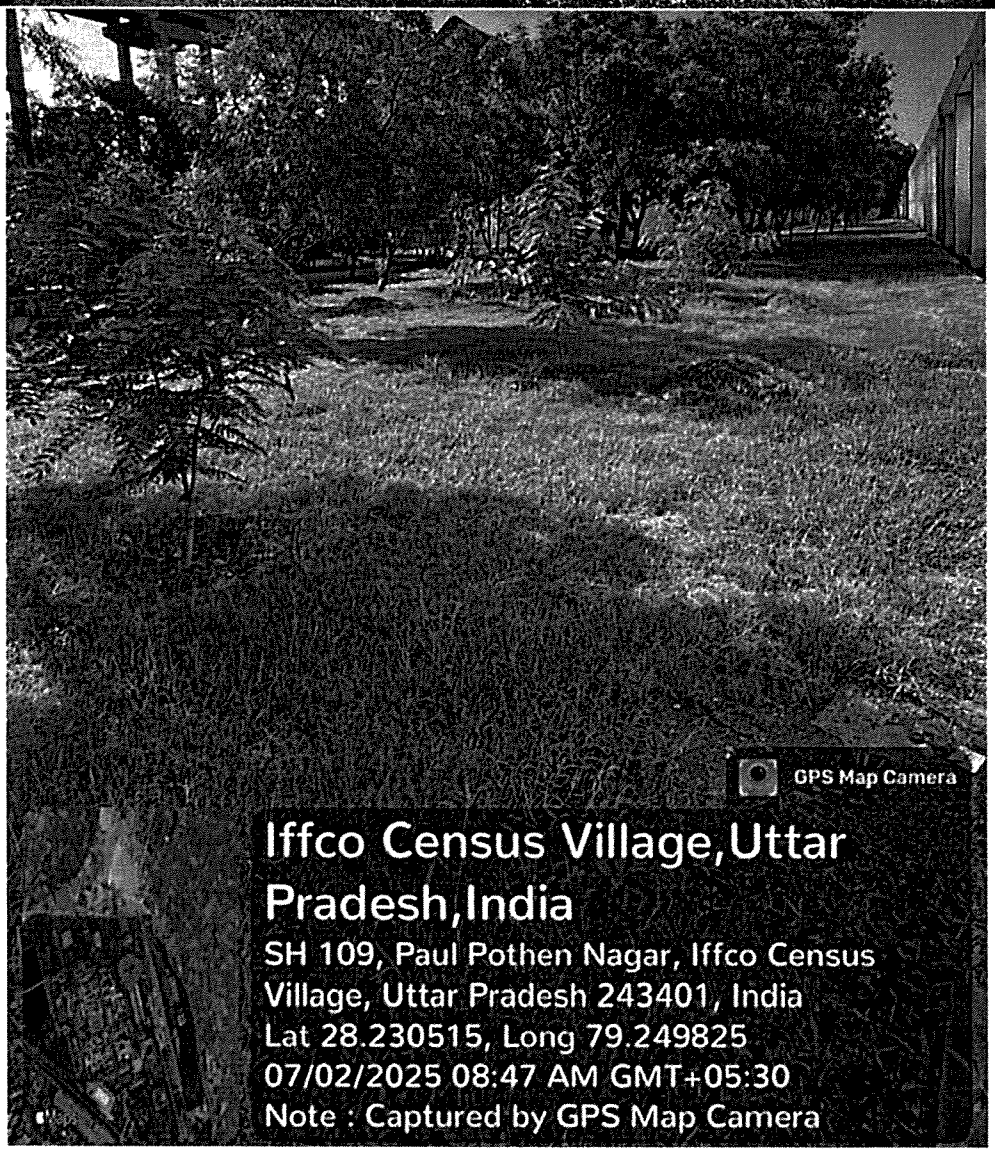


S.C. Pandey
Dy. General Manager (EPC)
IFFCO Aonla Unit
Bareilly-243403 (U.P.)

Other plantation Photographs 2024-25

S.C. Pandey
Dy. General Manager (EPC)
IFFCO Aonla Unit
Bareilly-243403 (U.P.)

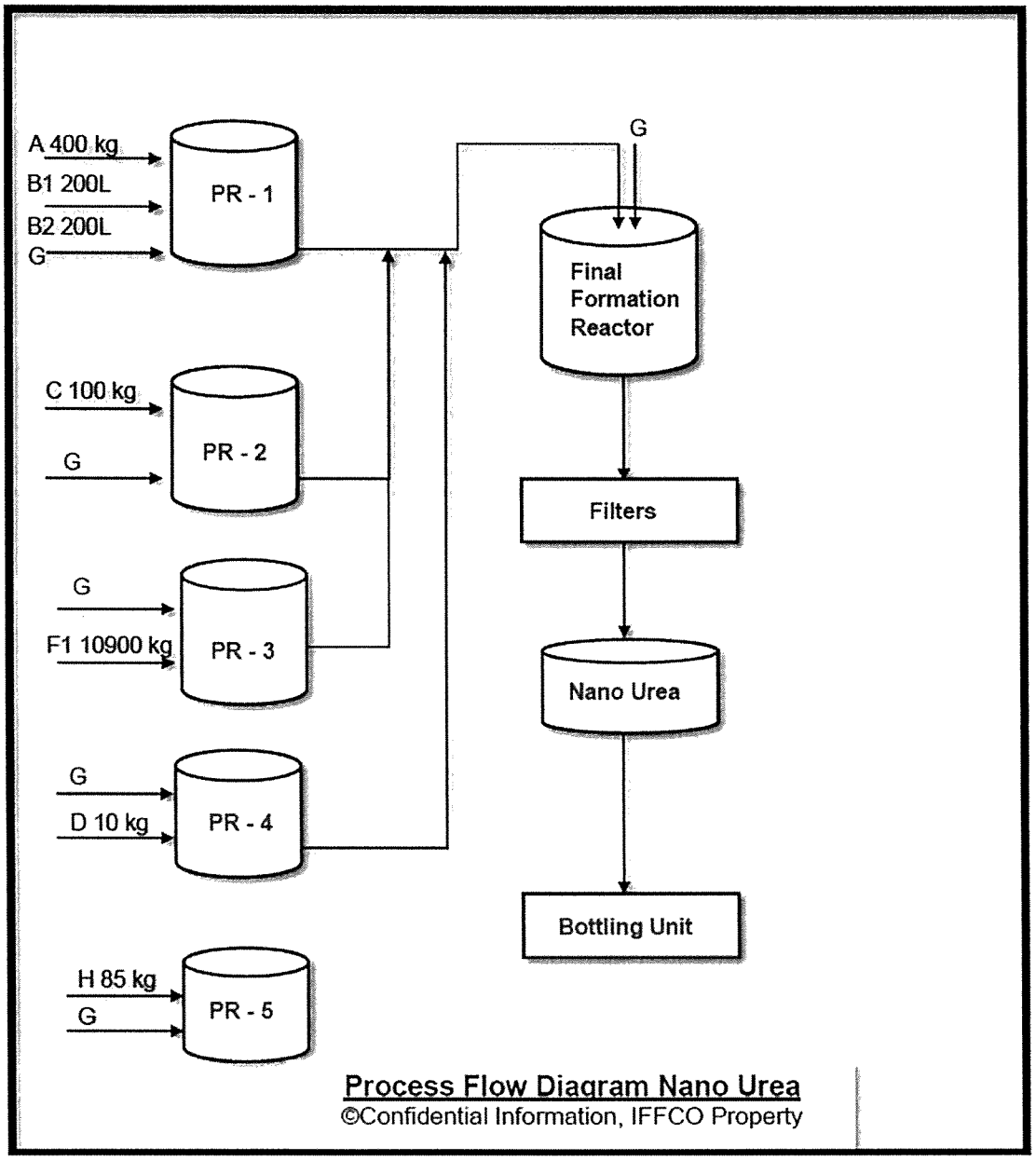


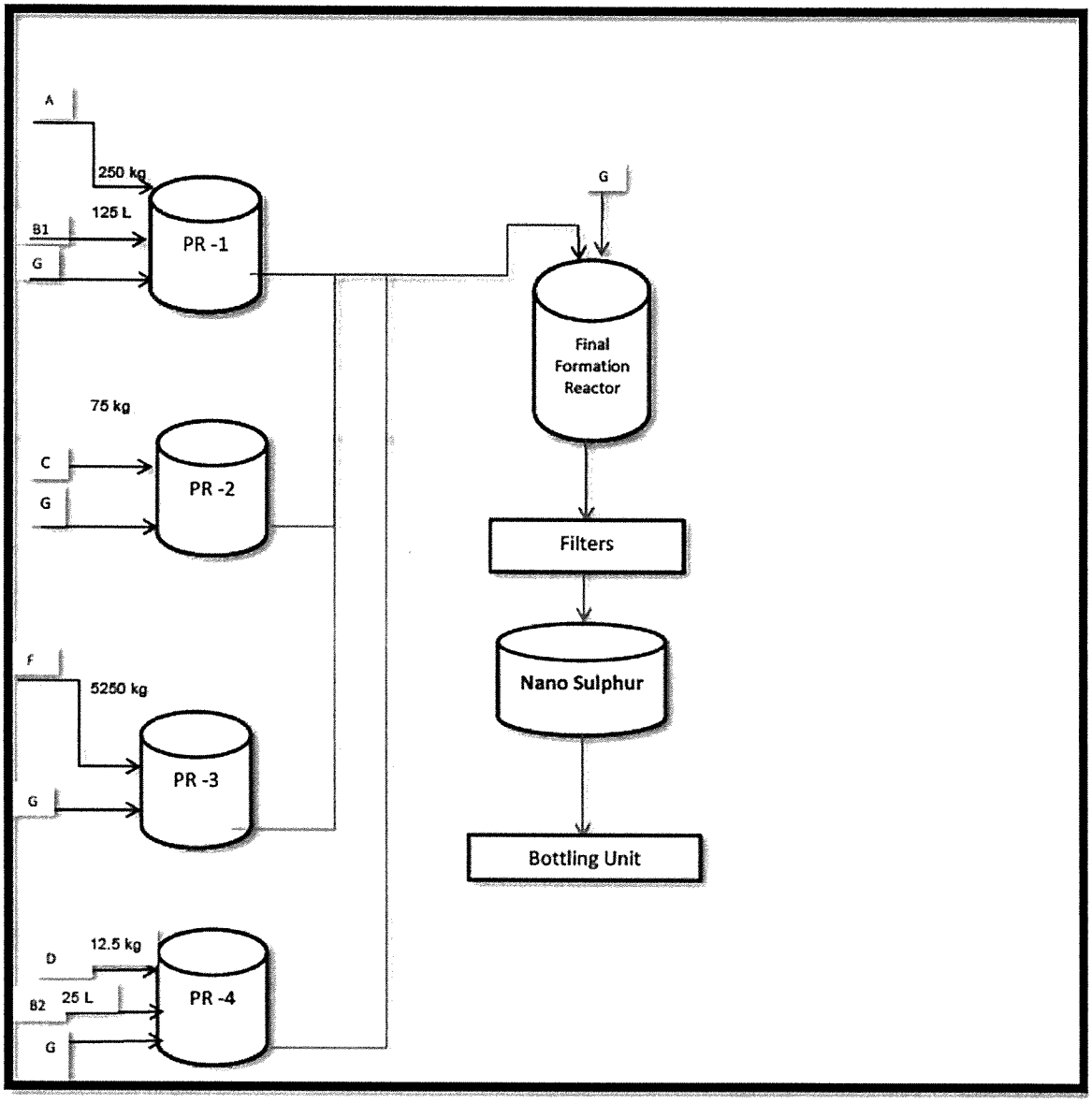


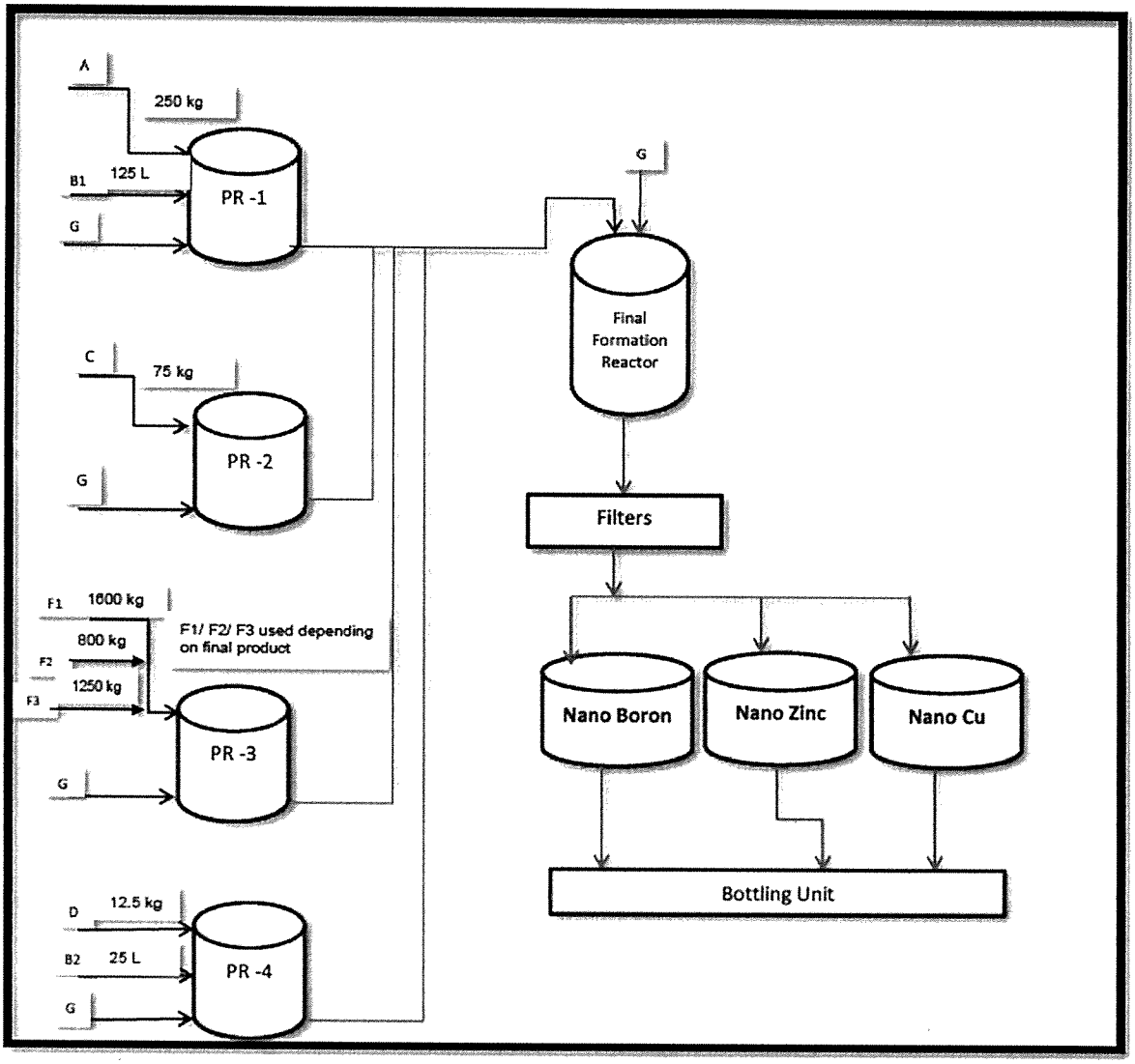
S C. Pandey
Dy. General Manager (EPC)
IFFCO Aonla Unit
Bareilly-243403 (U.P.)

S.C. Pandey
Dy. General Manager (EPC)
IFFCO Aonla Unit
Bareilly-243403 (U.P.)

Annexure-9


A 400 kg
B1 200L
B2 200L
G
PR - 1
G
Final Formation Reactor
C 100 kg
G
PR - 2
Filters
G
F1 10900 kg
PR - 3
Nano Urea
G
D 10 kg
PR - 4
Bottling Unit
H 85 kg
G
PR - 5
Process Flow Diagram Nano Urea
©Confidential Information, IFFCO Property

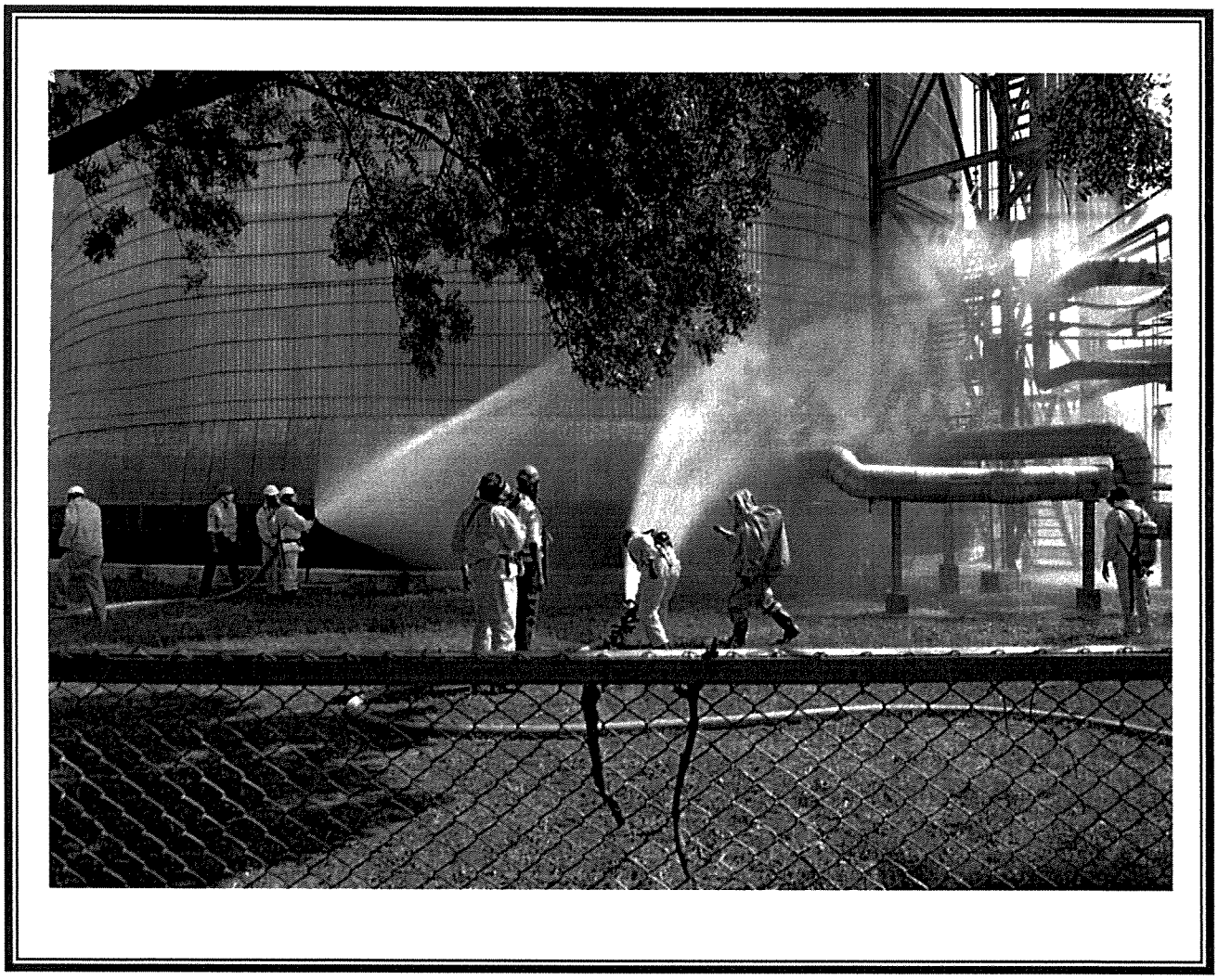




Annexure – 10

IFFCO
Wholly owned by Cooperatives

ONSITE EMERGENCY RESPONSE PLAN



INDIAN FARMERS FERTILISER COOPERATIVE LTD.
AONLA UNIT
P.O. IFFCO TOWNSHIP
BAREILLY - 243403

TABLE OF CONTENTS

IFFCO Aonla Unit has been categorised as a Major Accident Hazard Unit therefore an ONSITE EMERGENCY RESPONSE PLAN to be prepared as per the Rule 13 of The Manufacture Storage & Import of Hazardous Chemical Rule 1989 are framed under Section 6, 8 & 25 of Environment Protection Act 1986 or the Control of Industrial Major Hazard Rules 1990 are framed under section 41B of the Factories Act 1948. In order to comply with statutory requirements and to control the emergency situation an ONSITE EMERGENCY RESPONSE PLAN has been developed as a documented procedure to define the responsibilities and response during emergency.

2. SCOPE

The Plan is applicable to all emergency situations specified in the emergency plan.

3. DEFINITION

ONSITE EMERGENCY:
It is one which has the potential to causes serious injury or loss of lives, damage to property and serious disruption inside the industry or to the environment. The emergency is normally manifesting itself in three basic forms: Fire, Explosion or Toxic release. The on-site emergency situations can be controlled with the internal resources and mutual aid resources (UP Fire Service).

WORKS MAIN ONTROLLER:
Unit Head is the Works Main Controller- **WMC.**

INCIDENT CONTROLLER:
Sectional Head/Shift In charge is the Works Incident Controller-IC.

4. OBJECTIVES OF ON SITE EMERGENCY RESPONSE PLAN

The overall objectives of an emergency plan are:

a) To localise the emergency and, if possible eliminate it; and
b) To minimise the harmful effects of an emergency on people, property and the environment.

Elimination will require prompt action by operators and site emergency staff for example, using firefighting equipment, Operating emergency shut off valve and water sprays etc.

Minimising the effects may include rescue, first aid, and evacuation and giving prompt information to people.

BRIEF DETAILS OF FIXED FIRE & SAFETY SYSTEMS

SYSTEM	LOCATION
Fire Hydrant System consisting of 5 Electric & 3 Diesel Driven Pumps of Cap 410 M^3/hr. at 9.8 Kg/Cm^2, 2 Jockey Pumps 200 M^3 /hr. at 7.8 Kg/Cm^2 and Water Reservoir Cap. 14700 M^3 exclusively for fire pumps.	Water ring main covers entire plant and provided with stand post type double hydrants and Water Monitors and internal hose reels. Hose Reels in buildings
CO2 Flooding System	Gas Turbines at Power Plant and Ammonia-II.
- Clean agent systems	Telephone, PA Panels & Sever Room
-High Velocity Water Spray Systems	High Pressure Ammonia Pumps in Urea- 1 & 2 plant. Nano Plant
-Fire & Gas Detection and alarm Systems	Covering Entire Plant and all buildings including HVAC systems.
-Combustible Gas Detection System,	Ammonia plant, Natural Gas receiving & metering station, GT'S and Boiler areas.
-Toxic Gas Detection System for Ammonia	Ammonia Plant, Urea Plant, Ammonia Storage area,
- Smoke & Heat Detection System	All Buildings including Nano Plant

DETAILS OF MOBILE FIRE APPLIANCES

MOBILE EQUIPMENT	CAPACITY
Multipurpose Foam Tender Pump Output CO2 Extinguisher Capacity DCP Extinguisher Capacity	Water Tank- 4500 Liters Capacity Foam Tank- 1000 Liters 3% AFFF Capacity - 4000 LPM Discharge pressure - 9 Kg/Cm^2 22.5 Kg x 6 75 Kg x 2
Multipurpose Foam Tender Pump Output CO2 Extinguisher Capacity DCP Extinguisher Capacity	Water Tank- 5000 Liters Capacity Foam Tank- 500 Liters 3% AFFF Capacity - 4000 LPM Discharge pressure - 9 Kg/Cm^2 22.5 Kg x 6 75 Kg x 2
Multipurpose Foam Tender	Two numbers are also available with same specifications
Pickup & station wagon	2 Nos.
Portable Pump	2 Nos. Output. - 1800 LPM
Ambulance	5 No. fitted with resuscitation system

PERSONAL PROTECTIVE EQUIPMENT & OTHER SAFETY APPLIANCES

EQUIPMENT/ APPLIANCES	QUANTITY
B.A. Sets 45 Minutes duration	50 Nos.
Escape B.A. Set 15 Minutes duration	55 Nos.
Fixed on line Air Mask with mask	07 Nos.
Gas Mask (Canister)	70 Nos.
Exhaust/Blower	04 Nos.
Fire Entry Suit	10 Nos.
Fire Proximity Suit	10 Nos.
Total Encapsulating Suit for Chemical Emergency (Gastight suit)	08 Nos.

PPE INSTALLED IN PLANT

LOCATION / CCR / PPE	Amm 1	Amm 2	Urea 1	Urea 2	Offsite	PP	PH	NANO
B.A SET 45 MIN	2 in CCR 2 in Comp.	2 in CCR 2 in Comp	2 in CCR	2	2	2	2	2
ELBA SETS 15 MIN	2 + 2	2 + 2	2	2	2	2	2	2
ONLINE MASK	4 + 2 lines	4 + 2 lines	4 lines	4 lines	2 lines	--	--	--

LOCATION / PPE	AMM I	UREA I	AMM II	UREA II	UTILITIES			FIRE STN.
					AMM. STORAGE		Gas Metering	
B.A SET 30/45 MIN								
ESCAPE B.A SETS								
AMMONIA MASK								

IDENTIFICATION OF POTENTIAL EMERGENCY SITUATIONS

IFFCO Aonla has established procedures to conduct safety meetings, safety audits, Hazop study, and Risk assessment to identify potential accidents and emergency situations in the plant. The emergency situations, which have the potential to cause serious injuries or loss of lives, damage to property and serious disruption inside and outside the organisation or to environment have been identified as **FIRE, EXPLOSION** and **TOXIC RELEASE** due to bursting of any of the high pressure lines, or explosion in vessels or pipe lines or catastrophic failure of tanks at following locations:

LOCATION	TYPES OF EMERGENCY
AMMONIA PLANT	FIRE, EXPLOSION, TOXIC RELEASE
UREA PLANT	TOXIC RELEASE, FIRE, EXPLOSION
STEAM & POWER GENERATION	FIRE & EXPLOSION
OFF SITES UTILITIES	TOXIC RELEASE (Ammonia, Chlorine, Acid, Alkali)
PRODUCT HANDLING	TOXIC RELEASE, FIRE & OIL SPILL
NANO UREA PLANT	FIRE, EXPLOSION, TOXIC RELEASE

RESPONSE TO EMERGENCY

To locate the emergency in the plant, an automatic Fire & Gas Detection System has been installed. The fire and gas detection system (FGS) is intended to make an early detection of a fire situation and gas release (toxic and flammable) to provide a warning or alarm of the situationin order to allow check actions, either manual or automatic, to minimise theprobability of degeneration of a dangerous situation.
The FGS is an integrated set of FGS subsystems. Each plant building constitutes a subsystem with its own local fire and gas panel and display, located inside the building, to handle local detectors and alarms, detectors and alarms relevant to a defined process area, to report individual to a Mimic panel in the Fire Station of Aonla- 1 plant.

Manual Call Points, Public address system, Intercom and wireless Systems are provided in the plant for fast communication with Emergency Control Center and Fire Station Control Room

On receipt of an alarm or fire/ gas leak message in Control Room, fire tender along with crew takes turnout and proceeds towards the sense of incident. The plant shift in-charge takes charge of the incident and acts as the Incident Controller and Fire crew in charge takes the command to control fire / emergency till the arrival of senior officers. Plant personnelare trained to work alongside fire services and together provide a useful combination of skill and knowledge. If a situation demands outside assistance,then state fire service are called under mutual aid scheme and emergency siren is blown as per the established siren tones.

EMERGENCY SIREN CODE

TYPE OF EMERGENCY	SIREN CODE
FIRE /GAS LEAK	Wailing sound for three minutes
ALL CLEAR	Continuous sound for two minutes
TESTING	Continuous sound for one minutes

ON HEARING EMERGENCY SIREN

- Key / Essential Personnel shall report to Emergency Control Centre - ECC
- Non-essential personnel should report at the nearest assemble point and follow the instruction for safe route of evacuation.
- Note wind direction by checking windsock. Leave affected area immediately, moving crosswinds and upwind, never move downwind unless specific indication is given by the site supervision.
- Do not run, except in life threatening conditions.

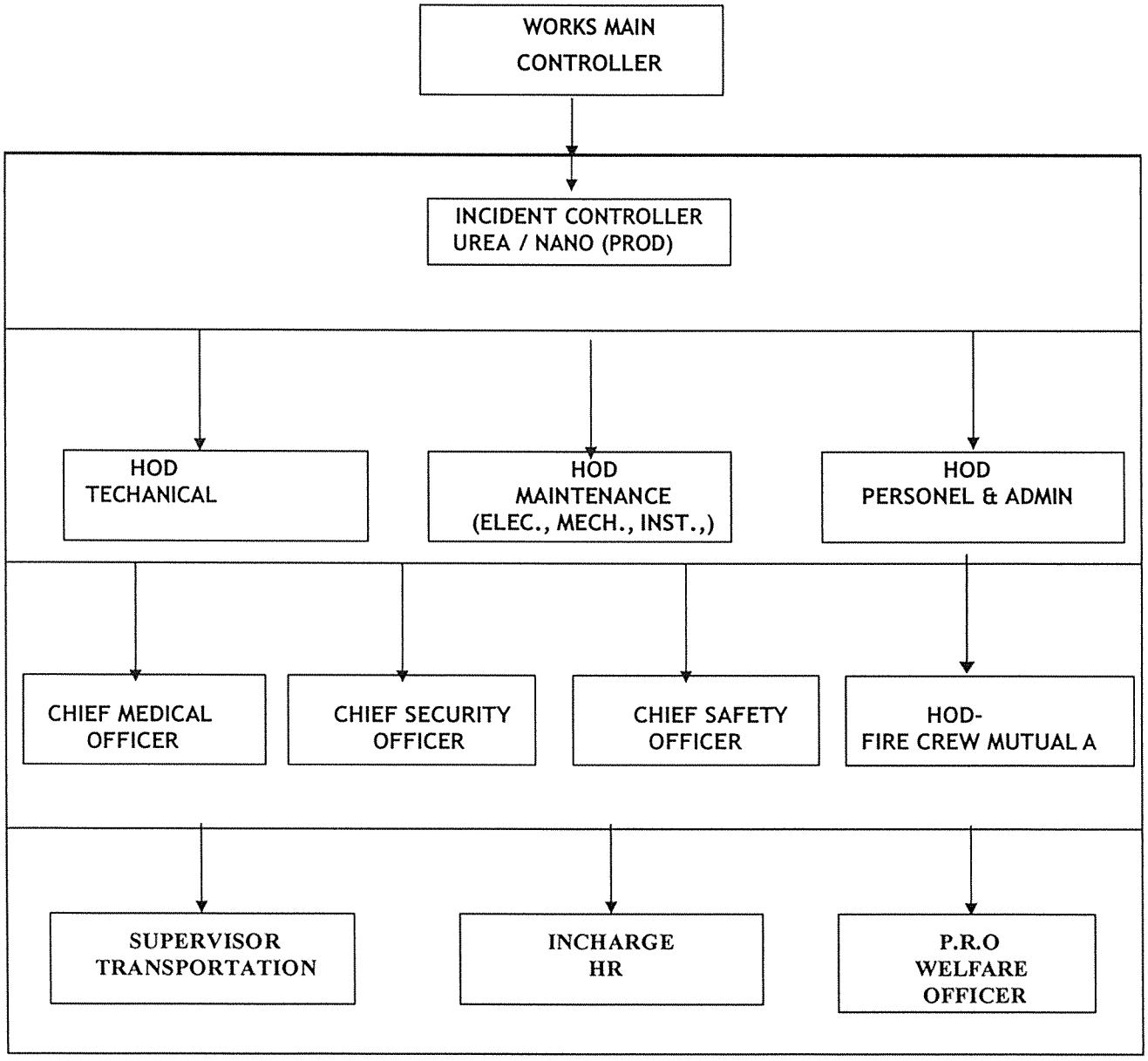
DEFINING THE LEVEL OF EMERGENCY

RESPONSE LEVEL	DESCRIPTION	RESOURCES	EXAMPLES
LEVEL -I POTENTIAL EMERGENCY CONDITIONS	An incident which can be controlled by own resources It does not require evacuation beyond the involved area and poses No immediate threat to life & property	Plant Fire Safety and Medical Services	Small fire in plant/ low toxic gas release for short duration collapse of small equipment
LEVEL -II LIMITED EMERGENCY CONDITIONS	An incident involving a greater hazard than level-I, which poses a potential threat to life & property. It may require a limited evacuation of the surrounding area.	Requires resources beyond the own resources Mutual Aid response.	Major Fire in plant medium scale explosion heavy toxic gas release for short duration
LEVEL -III FULL EMERGENCY CONDITIONS	An incident involving a severe hazard which poses an extreme threat to life & property which may require a large-scale evacuation	Require resources beyond those available in level- I & II, Off-site emergency plan of district shall be operated	Major fire or explosion in high-pressure vessel containing toxic/ flammable material. Heavy leakage of toxic material for long duration from pipe line or storage tank.

IFFCO
Wholly owned by Cooperatives

ON SITE EMERGENCY RESPONSE PLAN

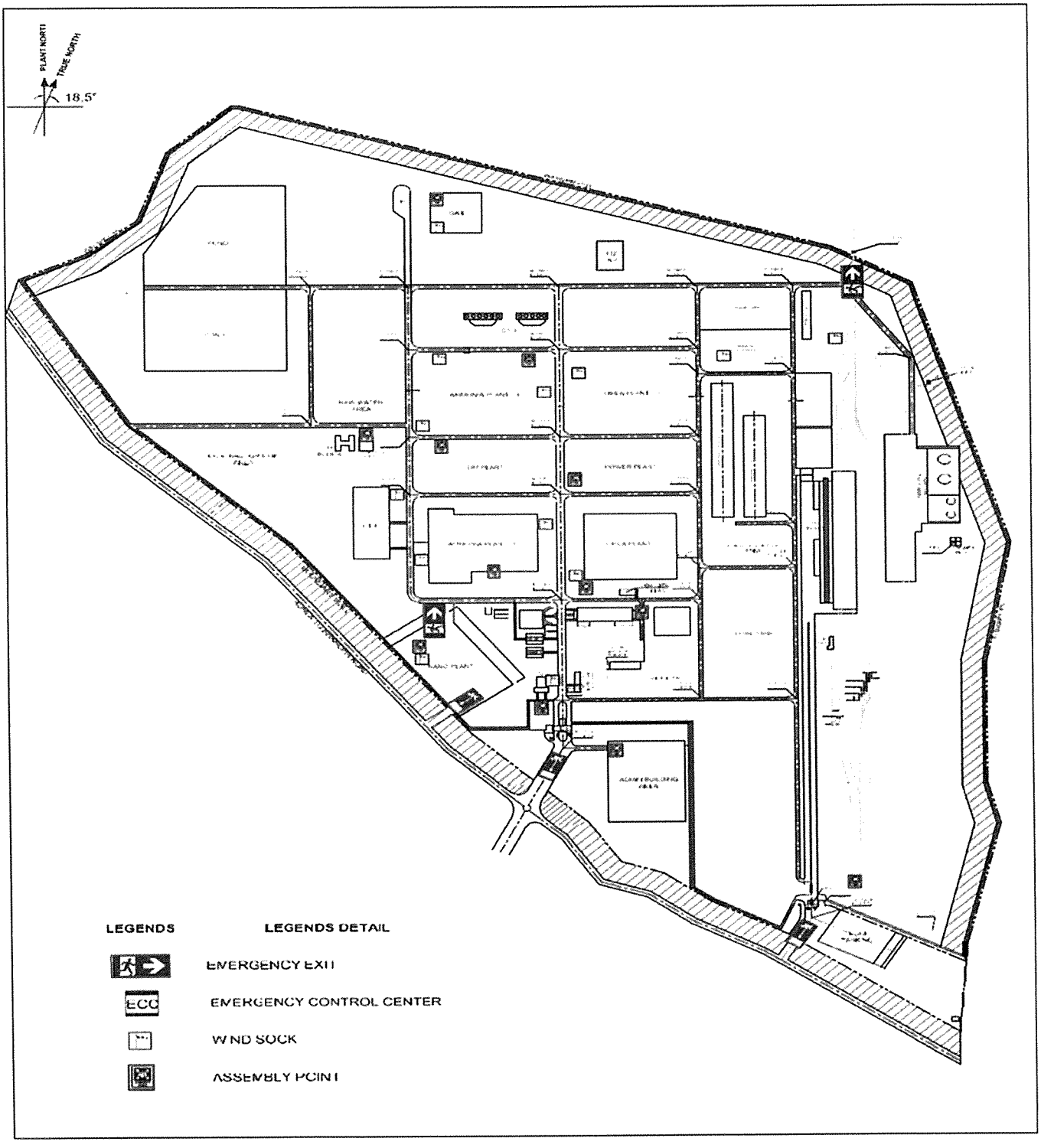
TITLE: ORGANISAION CHART FOR ONSITE EMERGENCY



IFFCO
Wholly owned by Cooperatives

ON SITE EMERGENCY RESPONSE PLAN

TITLE: PLANT LAYOUT, ESCAPE ROUTES, ASSEMBLY POINTS AND WIND SOCKS LOCATION



1.0 **ROLE OF WORKS MAIN CONTROLLER - UNIT HEAD/ HOD PRODUCTION** (IN ORDERTO SUCCESSION)

1.1 On notification about the incident, he shall immediately proceed to Emergency Control Center (ECC) and take charge of the incident.

1.2 He is overall responsible for directing operations and calling outside help from the Emergency Control Center (i.e., emergency control room, if it is affected due to adverse wind direction then GUEST HOUSE shall be alternate Emergency Control Centre).

1.3 Depending upon the nature of the emergency, he will decide the next courseof action and make the emergency known within the factory. If emergency situation has off-site implications, then he will inform to District Administration for actuation of Off-Site Emergency Plan.

1.4 Ensure that key personnel are called in and all HOD'S are coordinating their activities.

a) Direct all emergency operations within the affected area with following priorities

b) Personnel safety

c) Plant, Property & Environment safety

d) Minimum loss of production

1.5 Continuously review & assess possible developments to determine most probable course of action.

1.6 Direct the safe shut down of the plant in consultation with incident controller and key personnel if necessary.

1.7 Check that all non-essential workers, visitors, contractors are evacuated to assembly points.

1.8 Give instructions to the firefighting and rescue team if required.

1.9 If necessary, arrange for evacuation of neighboring population.

1.10 Ensure that searches for causalities within the affected area have been carried out & victims are hospitalized and being attended by medical services.

1.11 Ensure that HOD (P & A) notifies external agencies like District administration, Police, provide advice on possible effects to areas outside the factory.

1.12 Arrange for up -to-date recording of emergencies.

1.13 Do not restart the plant unless it is declared safe to start by a competent authority and inform Occupier at Head office.

1.0 **ROLE OF INCIDENT CONTROLLER - HOD(PRODUCTION)/HOD Nano /SECTIONAL HEAD/PLANT INCHARGE/ SHIFT INCHARGE** (IN EACH PLANT) (IN ORDER OF SUCCESSION)

1.1 His primary duty is to take charge at the scene of incident.

1.2 He may be required to take decisions whether to stop or continue any process and ask technical decisions to control the incident and simultaneously inform /consult senior officers as per requirement.

1.3 Immediately assess the scale of emergency i.e. L1, L2, or L3 & take action as per the level of emergency and inform UNIT HEAD, HOD (Production) for declaration of major emergency and activate onsite/off-site emergency plan accordingly. Ensure that information has been given to Works Main Controller.

1.4 The incident controller will work under the direction of the Works Main Controller till his arrival and may have to execute following responsibilities.

a) Direct evacuation of plants and areas likely to be affected by the emergency.
b) Ensure key persons are called in.
c) Direct all operations within the affected area with the followingpriorities.
Secure the safety of personnel, Minimise damage to plant property and Environment.

1.5 Coordinate with In charge Fire & Safety for rescue & firefighting operations.

1.6 Suspend all safety work permit jobs.

1.7 Direct for search of causalities.

1.8 Evacuate non-essential workers.

1.9 Brief Works Main Controller and keep him informed about the developments.

1.10 Inform the Utility Shift In charge & ensure that contaminated water is not going into the Aril River and other sensitive environments.

1.11 After the emergency is controlled, inform the Works Main Controller for AllClear.

1.12 Preserve evidence that will be necessary for subsequent inquiry into investigate the cause of the incident and concluding preventive measure.

1.0 ROLE OF SECTIONAL HEAD (F & S) / SAFETY OFFICER & SHIFT SUPERVISOR (Fire & Safety) (IN ORDER OF SUCCESSION)

1.1 He will be the only person to direct the firefighting / gas leak control and other emergency operation & other officers of F & S Section shall assist him

1.2 Keep the constant touch with Incident controller & Key personnel, for further assistance. If required, get help from UP Fire Bridge and Mutual Aiders. Also inform CFO - Bareilly and FO - Aonla.

1.3 Mobilise personnel protective equipment and other safety appliances.

1.4 Direct crewmembers at the scene of Emergency & arrange replenishment of equipment/ extinguishing media etc.

2.0 SUPERVISOR FIRE & SAFETY/SHIFT I/C

2.1 He will declare the emergency by blowing the siren after receiving the instruction from WMC.

2.2 On being notified about the location of fire/gas leak, immediately proceed to the scene of incident with Fire Tender, Ambulance and Crew by safe route.

2.3 Position the fire tender at proper place considering upwind direction.

2.4 Decide his line of action in consultation with shift engineer (incident controller) and take quick and appropriate action for rescue/ firefighting /gas leak control.

2.5 Inform HOD (Technical) and Sectional In-charge (F & S) & Safety Officer.

2.6 Till the arrival of Sectional In-charge (F & S) & Safety Officer direct and guide the fire crew for firefighting/gas leak control and rescue operation by giving clear-cut instructions.

2.7 Ensure that crewmembers are provided with proper safety equipment for tackling the emergency.

2.8 Continuously assess the severity of the incident and report to emergency control room.

2.9 Call for additional requirements such as vehicle, equipment's & extinguishing media.

3.0 FIRE MAN

3.1 On hearing Fire alarm/Emergency siren they shall immediately report to Fire Station control room and proceed to the scene of emergency and work under the direction of I/C Shift.

4.0 FIRE CONTROL ROOM DUTY MAN

4.1 Inform immediately to Sectional Head (F & S)/ Safety Officer about incident and work as directed by them, inform security main gate and key personnel.

4.2 See that pressure in fire hydrant system is maintained the same.

5.0 AUXILIARY FIRE CREW MEMBERS

5.1 On being notified about the location of fire/gas leak emergency, immediately report to the scene of incident and work under the guidance of Supervisor Fire & Safety.

1.0 ROLE OF HOD (TECHNICAL)

1.1 On notification of emergency report to ECC, if required depute persons for environment monitoring in the downwind area of incident with proper PPE and arrange checking of effluent samples.

1.2 Notifying the UPPCB as per legal requirements.

1.3 Ensure that contaminated water is not going into Aril River and other sensitiveenvironment.

2.0 ROLE OF E & PC Section

2.1 On being notified about the location of fire/gas leak, immediately report to Fire Station room and arrange replenishment of PPE.

2.2 Coordinate with lab for checking of environment if required.

2.3 Coordinate with material department for issue of fire safety items from stores.

2.4 Coordinate with Manager Technical and inform SPCB and other Government authorities required.

1.0 ROLE OF SECTIONAL HEAD INCLUDING NANO UREA /PLANT INCHARGE/ SHIFT SUPERVISORS (N ORDER OF SUCCESSION)

1.1 SECTIONAL HEAD /PLANT INCHARGE

1.2 Report to their respective plant and act as per the instruction of HOD (Production)/Sectional Head/ ECC.

1.4 Direct incident controller (In absence of HOD (Production)/Sectional Head) to control the emergency. Safe shut down the plant if situation demands in coordination with chief emergency controller.

2.0 SHIFT SUPERVISOR (PRODUCTION) INCLUDING NANO UREA PLANT

2.1 In absence of incident controller he will act as Incident controller

2.1 Declare the On Site Emergency and inform CCR for notification

2.2 Non affected plant personnel follow the instructions of their supervisors/ ECC.

4.0 OPERATOR (P) OF RESPECTIVE PLANT

4.1 Work under the direction of the Shift supervisor to control the emergency

1.0 ROLE OF CHIEF MEDICAL OFFICER, MEDICAL OFFICER & NURSE

1.1 CHIEF MEDICAL OFFICER

1.2 On notification of emergency contact immediately ECC, and report at OH Centre and Hospital for making necessary arrangements.

1.3 He will coordinate and arrange for prompt treatment of victims at OH Centre and hospital T/S.

1.4 He will arrange for hospitalisation and treatment at Bareilly/Bauduan hospital if required.

1.5 He will mobilise extra medical assistance from outside if necessary.

1.6 He will keep in touch with WMC.

2.0 MEDICAL OFFICER, PARAMEDICAL STAFF & NURSE

2.1 As directed by Chief Medical Officer.

1.0 ROLE OF HOD (MAINTENANCE), SECTION HEAD (MECH) & (E&I) INCLUDING NANO UREA PLANT,(IN ORDER OF SUCCESSION)

1.1 HOD (MAINT)

1.2 On notifying of emergency immediately contact ECC/ CCR and arrange for engineering services related to mechanical, electrical, instrumentation & NDT services as situation demands.

2.0 SECTION HEAD (MECH)

2.1 He will direct mobile equipment like crane, Truck, forklifts etc. as perthe need.

2.2 Mobilise more maintenance staff for help if required for emergency work.

3.0 SECTION HEAD (Electrical)

3.1 Mobilise more manpower if required for emergency electrical work.

3.2 Direct concerned personnel for providing extra lighting/ isolating electric supply as per requirements & shall depute on technicians at fire pump house for trouble free running of fire pumps.

3.3 ROLE OF COMMUNICATION INCHARGE

3.4 Ensure that the board is free to the extent possible for incoming call.

3.5 Ensure that all communication infrastructure will work without trouble.

4.0 SECTION HEAD (Instrumentation)

4.1 Mobilise more manpower if required for emergency instrumentation work.

5.0 SECTION HEAD INSPECTION

5.1 Arrange inspection as per the need

COMMUNICATION INFRASTRUCTURE

Intercom	Entire Plant
P.A System	Respective CCR & Entire Plant,
Handheld Radio Sets & Base Stn. Hand	All Plant /Emergency CCR
Electric Siren	At F&S Buildings, Near SGPG Plant and MCC-PH Plant
Land Lines Tel	All strategic location
GSM	All key personnel

1.0 ROLE OF HOD (P & A), SECTIONAL HEAD (HR),SECTIONAL HEAD (ADMINSTRATION) (IN ORDER OF SUCCESSION)

1.1 On notifying of emergency immediately contact ECC/ CCR.

1.2 Arrange vehicles to evacuate persons/causalities from assembly points/plants to the hospital/outside shelter.

1.3 In addition to own vehicle, if necessary, use hired vehicles and arrange additional drivers.

1.4 Ensure that the telephone operator is deputed on console & he has conveyedthe message to all essential and key personnel.

2.0 ROLE OF PRO (Admin & Personnel)

2.1 He will contact chief emergency controller immediately and keep in touch with local authorities and nearby fire services for their help.

2.3 He will inform UP FIRE SERVICE and UPPCB as per the legal requirements.

2.4 Ensure that the press does not publish unauthentic news.

2.5 Coordinate to inform relatives of affected persons.

2.6 Depute one person each at assembly points to record all personnel arriving there & pass information to Works Main controller.

2.7 Arrange for round the clock persons at hospitals to look after the need of the affected Persons.

2.8 Prepare records of affected personnel with local and permanent address.

2.9 Arrange for drinks/snacks/food as required.

1.0 ROLE OF CHIEF SECURITY OFFICER /SUPERVISOR (IN ORDER OF SUCCESSION)

1.1 On hearing hooter, he shall find out the location of fire/gas leak on mimic panel and inform the location to the key /essential personnel coming to plant.

1.2 Depute the security guards at Security Gates and near the place of incident to control the traffic and guide the emergency vehicles.

1.3 Inform plant Shift Engineer to direct the ERG members, to join the site of incident.

1.4 Prevent unauthorised entry at the scene of incident if required barricade/ cordon off the area.

1.5 Inform WMC/HOD (P&A) and render assistance as demanded by In-charge (F & S).

1.6 Mobilise additional security force for help.

1.7 Direct ambulance & emergency vehicle to the scene of incident

1.8 Help to evacuate the persons within the scene of incident.

1.9 As directed by WMC, it may be required to operate P.A. system for warning and evacuation.

1.10 Help to evacuate the persons within the scene of incident.

2.0 SECURITY GUARDS (Contract)

2.1 On hearing emergency alarm contact shift supervisor security & work under his direction.

1.0 ROLE OF MANAGER MATERIALS

1.1 On notification of emergency immediately contact ECC.

1.2 Arrange additional manpower for handling store items etc.

1.3 Arrange to issue items/equipment's required during emergency.

1.4 Take immediate action of emergency procurements & arrange additional manpower for local purchase etc. if required.

1.5 Co-ordinate with HOD (F & A) for financialrequirements.

1.0 ROLE OF SECTIONAL IN-CHARGE - PERSONNEL / ADMINTRATION (IN ORDER OF SUCCESSION)

1.1 Report at assembly point No.1 & contact immediately Chief Emergency Controller for further action.

1.2 Responsible for all activities at assembly points No. 1 Technical building No.2 Catering building and & No.3 Administration building and get the help of PRO arrange to record the names and departments of persons/causalities assembled there and transfer them to other places as instructed by ECC.

1.3 Arrange food and drinks as per the need.

1.4 Responsible for all activities of unaffected assembly point Incase assembly place is affected by adverse wind direction. His duties will be same as mentioned above.

Note: Guest House is declared as alternate Emergency control Centre and will come in operation only when the main ECC are affected due to adverse wind direction.

If Assembly place are affected due to adverse wind direction, please. assembled nearest Assembly place up the wind.

1.0 ROLE PLAYED BY MEMBERS OF MUTUAL AID SCHEME(UP FIRE BRIGADE - Bareilly & Aonla, GAIL, IOCL, BPCL & HPCL)

1.1 On receiving the call, they shall proceed immediately with fire crew &fire tender.

1.2 The place of the incident will be guided by the main gate security guard.

1.3 I/C Fire crew (UP FIRE BRIGADE) will contact to In-charge (F & S) and help the emergency operation as guided by him.

1.4 I/C UP fire brigades shall ensure the safety of their crew members involvedin emergency operation.

1.0 RECOVERY, RE-ENTRY AND RESTORATION OF SERVICES

1.1 The recovery and re-entry phase begins after the declaration of termination of emergency (all clear) situation by Works Main Controller. All the conditions that may be encountered in an emergency situation cannot be anticipated in advance therefore detailed plans and procedures for recovery operation to be prepared at the time they are needed.

1.2 Re-entry operation to be performed by the Re-entry Team constituted by Unit Head.

1.3 Specific procedures for recovering from an emergency and re-entering the facility can hardly be provided, since they will have to be determined on a case-by-case basis, depending on the type of incident and severity of the damage suffered. However following steps will be taken:

- Organizing a re-entry team
- Inspecting the damage.
- Deciding which employees should report to work and notifying them.
- Beginning an investigation into the causes of emergency.
- Assessing the damage to the facility.
- Decontaminating the damaged area.
- Restoring services to the damaged area.
- Clearing up the debris.
- Salvaging material and equipment affected by the emergency.
- Restoring the parts of the facility affected by the emergency.
- Determining responsibilities and instituting possible insurance and damage claim.

Fire Fighting and Rescue Team

The fire fighting and rescue team leader shall give directions to personnel under his control.

The actions to be taken in case of emergency are described here for each potential accidental scenario. The following general instructions are here given:

Jet fires

Jet fires can be generally extinguished mainly by closing the sectioning valve upstream and downstream the leakage, unless the release pressure is so low that a high-pressure water jet can extinguish the flame.

The gas leakage may continue after fire extinguishing till the leaking line or equipment is at atmospheric pressure. Do not allow access of ignition sources in the vicinity of the gas leakage.

Gas will anyway remain inside equipment and lines and any further operation on the sectioned line shall take into account this effect: no flames or hot tools shall come in contact with such equipment and lines until blown with inert gas.

Equipment and structures impinged by the jet flame or in close proximity of the fire can be compromised by the overheating and collapse. Such structures shall be cooled down with constant watering.

In ammonia and urea units, lines or equipment containing liquid ammonia might be subject to heating and ammonia might start flashing massively. Such lines and equipment shall be cooled down by constant watering, fluid circulation inside such lines and equipment shall be kept as far as possible.

Pool fires

Pool fires can be generated by oil or diesel fuel spillages. The areas of major concern are the transformers and the lube oil consoles of main compressors and pumps, as the quantity of oil contained is relevant and the fire might require a long time before extinguishing.

For pool fire extinguishing purposes, foam shall be preferred to water. Heating of the oil or diesel containing equipment located in the proximity of the fire shall be avoided at any time. The cooling down effect can be achieved by operating fixed automatic High Velocity Water Spray System and high-pressure water fog from fire tender high pressure hose reels. Water can be used from hydrants available on the ring mains.

Fire inside buildings

In case of fire inside buildings and accommodations the HVAC or AC shall be switched off. It shall not be restarted until the fire is extinguished. Firefighting and rescue personnel shall wear full face breathing apparatus before entering any building where fire is developing. None but the fire fighting, and rescue personnel are allowed to enter a building when fire is developing inside. All personnel inside the building on fire shall leave it without panic and move to assembly points.

HDPE Dust Fire and Explosion

Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases. In molten state reacts violently with water (moisture).

Dust could be formed as a result of granule degradation by impact or by abrasion during handling, grinding, or conveying operations. Potential dust explosion hazard from airborne release.

Radioactive material release

In the event of a fire or incident involving a radioactive source:

- Seek immediately technical assistance from the RPS (Radiation Protection Supervisor) for prompt intervention of adequately equipped personnel.
- Direct all site personnel to leave the danger area.
- Immediately implement the procedure for covering the radiation source and limit its spreading (the oldest person in the staff should carry out the operation)
- Erect barriers and notices at the perimeter of the danger area
- Contact the nearest qualified Radiation Centre and obtain technical assistance in recovering the source, and for disposal.
- Keep the radiation level monitored in order to assess the extension of the affected area; the limit of 7.5 uSv/h shall never be exceeded.
- Minimise the exposure time of rescue personnel to radiation.

Liquid ammonia release

Ammonia is toxic but not flammable, unless in presence of very high energy ignition sources; in this case it however does not sustain the combustion, unless mixed with other flammable materials.

In case of liquid ammonia release, the following actions shall be taken:

- Install the water barriers downwind the release point and, as far as practicable, in the closest position to the release point.
- Identify the escape ways in coordination with the Incident Controller.
- Isolate the line or equipment leaking by closing the relevant valves upstream and downstream of the leak.
- DO NOT SPRAY WATER DIRECTLY ON THE LIQUID AMMONIA POOL
- As far as possible, try to limit the enlargement of the ammonia pool by means of containment in order to minimise the evaporating surface.

Firefighting and rescue personnel as well as all technical personnel in charge of operating in the accident area shall wear full face breathing apparatus for all the duration of the operation/task in the affected area.

The full-face breathing apparatus are provided with compressed air cylinders for 15, 45 and 60 minutes operations.

The choice of the most suitable one shall be carefully planned in agreement with the Incident Controller, based on the estimated duration of the operation to be carried out.

As a general rule full face breathing apparatus shall be worn by personnel directly operating in the accident area or in emergency/rescue operations.

Supervisory personnel should not be provided with this type of protection and should supervise from a safe location.

Access to the accident area shall be permitted only to personnel directly operating technical personnel shall leave the accident area and reach a safe area as soon as the emergency operation he has to carry out is completed.

No emergency operations shall be carried out without full face breathing apparatus notwithstanding how short and rapid can be the operation to be carried out.
Normal full face gas masks whose cartridge duration cannot be predetermined shall be used only for escape/evacuation purposes.

Gaseous ammonia release

Ammonia is toxic but almost not flammable, unless in presence of very high energy ignition sources; in this case it however does not sustain the combustion, unless mixed with other flammable materials.

In case of gaseous ammonia release, the following actions shall be taken:

- Check the position of the release. If the release is at an elevation lower than 10 m, install the water barriers downwind the release point and as far as practicable, in the closest position to the release point. Water barriers have widths of about 25-30 m and height of about 8-10 m. When installed in sequence, horizontal overlapping shall be ensured.
- Identify the escape ways in coordination with the Incident Controller.
- Isolate the line or equipment leaking by closing the relevant valves upstream and downstream of the leak.
- Use water monitors and hydrants to wash down the gas cloud. Maximize the water spray in order to have a better abatement effect.
- Ensure watering as close as possible to the gas release point.

Firefighting and rescue personnel as well as all technical personnel in charge of operating in the accident area shall wear full face breathing apparatus for all the duration of the operation/task in the affected area.

The full-face breathing apparatus is provided with compressed air cylinders for 15, 45 and 60 minutes operations. The choice of the most suitable one shallbe carefully planned in agreement with the Incident Controller, based on the estimated duration of the operation to be carried out.

As a general rule full face breathing apparatus shall be worn by personnel directly operating in the accident area or in emergency/rescue operations. Supervisory personnel should not be provided with this type of protection and should supervise from a safe location.

Access to the accident area shall be permitted only to personnel directly operating technical personnel shall leave the accident area and reach a safe area as soon as the emergency operation he has to carry out is completed.

No emergency operations shall be carried out without full face breathing apparatus notwithstanding how short and rapid can be the operation to be carried out. Normal full face gas masks whose cartridge duration cannot be predetermined shall be used only for escape/evacuation purposes.

The full-face breathing apparatus are provided with cartridges for 15, 45 and 60 minutes operations. The choice of the most suitable one shall be carefully planned in agreement with the Incident Controller, based on the estimated duration of the operation to be carried out.

As a general rule full face breathing apparatus shall be provided to personnel directly operating in the accident area or in emergency/rescue operations. Supervisory personnel should not be provided with this type of protection and shall supervise from safe location.

Access to the accident area shall be permitted only to personnel directly operating Technical personnel shall leave the accident area and reach a safe area as soon as the emergency operation he has to carry out is completed.

No emergency operations shall be carried out without full face breathing apparatus notwithstanding how short and rapid can be the operation to be carried out.

Normal full face gas masks whose cartridge duration cannot be predetermined shall be used only for escape/evacuation purposes.

Flammable gas explosion

In the present phase, the only foreseeable explosion scenario is due to the delayed ignition of a natural gas release.

The Quantitative Risk Assessment shown this accident is very unlikely and with limited consequences. In proximity of the Gas Turbines.

In this case, no toxic gas release would occur, but a jet fire would most likely develop, following the rupture of gas lines. The SGPG Control room would mostlikely be affected by the blast, because they have been realised without blastresistant design criteria.

The explosion scenario can be managed following the same instructions to be followed for jet fire scenarios.

EMERGENCY DRILLS AND TRAINING

It is necessary to ensure that all Plant personnel know what they have to done in the event of an emergency.

Testing of the system shall be carried out by means of practical training and a programme of regular drills and exercises.

Exercises shall be conducted by plants also and the observation shall be recorded.

The reports shall be forwarded to the competent authority and any remedial action required shall be identified.

- The emergency procedure shall be updated from time to time depending on the observation made.
- Training shall be conducted on regular basis for the teams involved in the emergency procedures.
- Area plot plans shall be sited in conspicuous locations for the attention of each employee. This layout plan shall clearly mark the Alarm, Assembly Points and Escape Ways.
- The location of the firefighting equipment shall be also very clearly marked on this plan.

The plant site physicians, medical personnel, first aid personnel and Emergency response group members shall be specifically trained for managing the predictable emergencies relevant to the activities.

ROLE OF KEY PERSONNEL

All key personnel have to implement all decisions of WMC andwork under the guidance of Works Main Controller (WMC).

EMERGENCY CONTACT NUMBERS

NAME	DESIGNATION	GSM NO.	OFFICE NO.
Mr Rakesh Puri	Unit Head	9412761387	0581-2404001/02
Mr. S C Gupta	HOD - Production	9412288295	0581-2404004
Mr. VENKAT SATYANARAYANA	HOD - IT	9412288104	0581-2404010
Mr. P V K Sashtri	HOD - Maintenance	7060010431	0581-2404012
Mr. Pradeep Sharma	HOD - Technical	9412345462	0581-2404018
Mr. Satyjeet Pradhan	HOD - Ammonia	9557001519	0581-2404016
Mr. R K Sharma	HOD - Maintenance	9760896600	0581-2404020
Mr Mukesh Ketan	HOD Nano Urea	9412121468	0581-2404022
Mr Neeraj Rajesh	HOD - Urea	9457755660	0581-2404024
Mr. A S Chauhan	HOD - P & A	7060026670	0581-2404038
Dr. Sunita Gupta	CMO	9068139789	0581-2404981
Mr. R S Marwaha	CSO	7060409769	0581-2404160
Mr. A K Pandey	CM (F&S) & Safety Officer	9412603559	0581-2404221
Mr. Sudhir Kumar	VO	9068904111	0581-2404001
Mr. Vineet Kumar	PRO	9412290323	0581-2404001

BUILDING	INTERCOM	BUILDINGS	
Fire Station	100/4231	Security - Plant Main Gate	4200
OHC (Dispensary)	102/4295	Security - Transport Gate	4171
Security	101/4200	Security - Railway Gate	4174
ECC	3333/4444	Admin. Transportation	4132/4124
AMMONIA-1	4601/4602/4603	PH PLANT	4801/4811
AMMONIA-2	4651/4652/4653	POWER PLANT	4841/4842
UREA-1	4701/4702/4703	OFFSITE	4871/4872
UREA-2	4751/4752/4753	GAIL	4971/4968

OUTSIDE EMERGENCY SERVICES CONTACT NUMBERS

Asstt. Director Factory	9411858555
Chief Fire Officer	9568386113
Fire Station - Bareilly/Aonla	9454418340
GAIL - CCR	4971/4968
Hospital Accident and Emergency	4190/4191

EMERGENCY RESPONSE GROUP MEMBERS:

S. No	PLANT	NAME
1	AMMONIA-1	B S Adhikari, Gopal Pandey, Niraj Misra, K M Singh, Santosh Kr, V Murali, Amit Tripathi, Submit Gupta, Vidya Prasad, Suneel Kr, Pushpendra, Ankur Maheshwari, Mayank Rathore, Deepak Pandey
2	AMMONIA-2	Manoj Agarwal, G K Trivedi, N A Nagrare, Avinash Gupta, Ambuj Patel, Sukesh Kumar, Amit Gupta, Uttam Pal, Mukesh Shukla & Hoshiyar Singh
3	UREA-1	R K Nigam., Ajeet Singh., Raj Kumar, D K Shrivastava, Anil Kumar Gupta, Tarkeshwar Rai & Bhoopendra Prakash
4	UREA-2	A R Rathor, M K Gupta, K D Joshi, Manoj Saxena, A K Mishra, R B Gupta, V K Sharma, Samar Singh, Zahid Khan & Rajeev Chaudhary
5	SGPG PLANT	G.C. Tripathi, Vikram, Surendra Singh, N.D. Mishra, H.S. Bohra, O P Kushwaha, Pawan Kumar & Satyendra Kumar
6	OFFSITES	A K Singh, A K Mittal, Amrendra Kishore, B K Srivastava, M K Johari, M M Gupta,
7	PH - PLANT	Yogesh Kumar, S K Nigam, R K Sharma, R K Johari, Ratan Das, S K Mishra, N K Shukla & Ram Kripal Sharma
8	NANO UREA PLANT	Ashish Gupta, Dinesh Kumar, Amit Kumar Singh, Sachin Arora, Gyanendra Kumar Singh, Kamlesh Kumar, Rajiv Chaudhary, Himanshu Kumar

1. SCHEDULE 1 – PRODUCT SAFETY INFORMATION
ANHYDROUS LIQUID AMMONIA

1.1 Identification of the Product / Company

Commonly used synonyms		Ammonia, Liquid Ammonia, Liquefied Ammonia, Anhydrous Ammonia.
CAS Number		7664-41-7
Molecular formula		NH_3
Manufacturer/Supplier identification	:	IFFCO
Company	:	Indian Farmers Fertiliser Company Aonla Unit, Bareilly
Contact for information	:	A K Pandey
Emergency telephone No.	:	0581-2404221
Fax No	:	05823-234866
E-mail	:	pandey_ak@iffco.in

2. COMPOSITION/INFORMATION ON INGREDIENTS

Molar mass	:	17.03 g/mole
Molecular formula	:	NH3

Essentially pure ammonia containing minute levels of water (normally <1000 PPM).

2.1 Classification

Toxic according to EEC classification.

3. HAZARDS IDENTIFICATION

3.1 Ammonia is toxic by inhalation, corrosive to all parts of the body and liquid splashes can cause severe cold burns.

Skin contact

- Liquid ammonia splashes may produce severe cold burns to skin. Vapor in presence of moisture is an irritant to the skin.

Eye contact

- Liquid ammonia splashes may cause permanent damage to eyes with the full effects not being apparent for several days. Vapors can cause irritation and watering of eyes and at high concentrations can cause severe damage.

Ingestion

- Will immediately cause severe corrosion of a damage to the gastro-intestinal tract.

Inhalation

- Ammonia odor threshold 5-25ppm. Concentrations in the range 50-100ppm may cause slight irritation following prolonged exposure. Immediate eye, nose and throat irritation may occur with ammonia levels between 400-700ppm with symptoms of slight upper respiratory tract irritation persisting beyond the period of exposure. At higher concentrations, above 1000ppm, severe eye and upper respiratory tract irritation can develop following a short period of exposure. Exposure to ammonia in excess of 2000ppm for even short periods may result in severe lung damage and could be fatal. Fluid buildup on the lung (pulmonary oedema) may occur up to 48 hours after exposure and could prove fatal.
- Exposure to concentrations grossly in excess of the occupational exposure limit may lead to permanent respiratory impairment.

Long term effects

- No evidence of adverse effects at exposure below occupational exposure limits.

3.2 Environment

Ammonia is toxic to aquatic life.

3.3 Other

Fire, heating and explosion

- Flammable but difficult to ignite in open air. In an enclosed space ammonia air mixtures may be flammable/explosive.
- Danger of tank or cylinder bursting when heated.
  Large leaks of liquid ammonia may produce a dense cloud, restricting visibility.

4. FIRST-AID MEASURES

4.1 Product

Speed is essential. Remove affected person from further exposure. Give immediate first aid and obtain medical attention.

Skin contact

- Drench with large quantities of water in case of frost bite (freeze burns) clothing may adhere to the skin. Defrost with care using comfortable warm water.

- Remove clothing and wash affected parts.
- Obtain immediate medical attention.

Eye contact

- Immediately irrigate the eyes with eyewash solution or clean water for at least 10 minutes.
- Continue irrigation until medical attention can be obtained.
- Hold eyelids open during flushing.

Ingestion

- Do not induce vomiting
- If the person is conscious, wash out mouth with water and give 2 or 3 glasses of water to drink.
- Obtain immediate medical attention.

Inhalation

- Move the injured person to fresh air at once.
- Keep the patient warm and at rest.
- Administer oxygen if competent person is available
- Apply artificial respiration, if breathing has stopped or shows sign of failing.
- Obtain immediate medical attention

5. FIRE FIGHTING MEASURES

Ammonia vapor and liquid spills are difficult to ignite, particularly in the open air. In an enclosed space, mixtures of ammonia and air within the limits (16-27%) might cause explosion if ignited. Cold, dense cloud of ammonia may impair visibility.

- Attempt to isolate source of leak
- Use foam, dry powder or CO_2
- Use water sprays to cool fire-exposed containers and structures, to disperse vapors and to protect personnel. ***Do not spray water into liquid ammonia.***
- Wear self-contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

- Those dealing with major releases should wear full protective clothing including respiratory protection. (*See section 8*)
- Evacuate the area down-wind of the release, if it is safe to do so.
- If not, then stay indoors, close all windows and switch off any extraction fans or electrical fires.
- Isolate source of leak as quickly as possible by trained personnel.
- Ventilate area of spill or leak to disperse vapors.
- Remove ignition sources.
- Consider covering with foam to reduce evaporation

- Contain spillage if possible
- Use water sprays to combat gas clouds. Do not apply water directly into large ammonia spills.
- Take care to avoid the contamination of watercourses
- Inform appropriate authority in case of accidental contamination of watercourses or drains.

7. HANDLING AND STORAGE

7.1 Handling

- Avoid skin and eye contact and inhalation of vapors
- Provide adequate ventilation
- Control atmospheric levels in compliance with occupational exposure limits
- Wear full protective equipment where there is a risk of leaks or splashes.

7.2 Storage

- Store containers tightly closed in a cool, well ventilated area.
- Keep away from heat, ignition sources and incompatible substances. (*See Section 10.3*)
- Do not permit smoking in the storage area.
- Follow appropriate Industry or National codes for bulk and container (cylinder) storage.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Recommended occupational exposure limits

- TLV/TWA : 25ppm = 17mg/m^3 ACGIH (Tab. 1995-96)
- TLV-STEL : 35ppm = 24mg/m^3 ACGIH (Tab. 1995-96)

8.2 Precautionary and engineering measures

- Provide local exhaust ventilation where appropriate
- Provide safety showers and eye washing facility at any location where skin or eye contact can occur.

8.3 Personal Protection

- Wear suitable breathing apparatus if exposure levels exceed the recommended limits.
- Wear cold insulating PVC gloves, rubber boots and PVC suit.
- Use chemical safety goggles or full-face shield.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless gas at ambient temperatures
Odor	Pungent, suffocating
pH water solution (conc. 1%)	11.7

Freezing point	-77.7°C
Boiling point	-33.4°C at 101.3kPa
Flammability	In the region of 16-27% NH3 by vol. In air at 0°C.
Auto-ignition temperature	651°C
Vapor pressure	1013kPa at 25°C
Relative vapor density	0.6 (air = 1)
Solubility in water	extremely soluble, e.g., 529g/l at 20°C
Solubility in organic solvent	soluble in alcohol, acetone, chloroform
Liquid density	0.6386g/cm3 (at 0°C, 101.3kPa).
Gas density	0.7714g/l (at 0°C, 101.3 kPa).

10. STABILITY AND REACTIVITY

10.1 Stability

Thermally stable in reaction terms at design storage conditions. Heat input can cause liquid to vaporize.

10.2 Conditions to avoid

Physical damage and heating of containers.

10.3 Materials to avoid

- Ammonia reacts violently with hypochlorites, mercury and halogens producing unstable compounds that are liable to explode.
- Attacks copper, zinc, aluminum, cadmium and their alloys.
- Reacts with mercury and silver oxide to form compounds that are sensitive to mechanical shock.
- Ammonia gas can violently with nitrogen oxides and strong acids.

10.4 Hazardous reactions/decomposition products

NOx. from combustion.

11. Toxicological information

11.1 General

Ammonia is toxic by inhalation and corrosive to all parts of the body.

11.2 Toxicity Data

Skin contact

- Vapor, in the presence of moisture, is an irritant to skin.
- Liquid splashes or vapor spray can cause chemical or freeze burns.

Eye contact

- Low vapor concentrations can cause irritation and watering of eyes, higher concentrations (above 1000ppm) can cause severe damage.
- Liquid splashes may cause permanent damage with the full effects not being apparent for several days.

Inhalation

Odor threshold 5ppm for some and 25ppm for most people. At 50-100ppm irritation experienced by most people.

- Depending on ammonia vapor concentrations, exposure may cause immediate eye, nose and throat irritation, coughing, and difficulty in breathing. At high concentrations exposure, even for short periods, may result in severe lung damage.
- Pulmonary Oedema may occur up to 48 hours after severe exposure and could prove fatal.
- EEC classification: Toxic
  (EEC Toxic criterion for gases and vapors:
  Median Lethal Concentration- 4-hour exposure: 500 to 2000mg/m^3).
- Exposure to concentrations greatly in excess of the occupational exposure limit may lead to permanent respiratory impairment.

Ingestion

- Will immediately cause corrosion of and damage to gastro-intestinal tract.

11.3 Other Data

- No adverse effect has been evaluated by IARC as regards carcinogenicity.
- Ammonia is not mutagenic in Ames Salmonella test.

12. ECOLOGICAL INFORMATION

12.1 Mobility

Very soluble in water. NH_4 + ion is adsorbed by soil.

12.2 Persistence/Degradability

- In the soil, microorganisms to nitrate ion quickly oxidize ammonia.
- In fresh water, it may be nitrified by microorganisms or adsorbed on sediment particles and colloids. Substantially biodegradable in water.
- In the atmosphere, it may be degraded by photolysis or neutralized by acid pollutants of the air.

12.3 Bio accumulation

Low potential

12.4 Ecotoxicity

- Free (non-ionized) ammonia in surface water is toxic to aquatic life, however the ammonium ion, which predominates in most waters, is not toxic. In the event of water contamination with ammonia, ammonium salts, which may be formed, will not present a toxic hazard. Increases in pH above 7.5 leads to an increased level of non-ionized ammonia.
- LC_{50} (96 hour) (various species) <1mg/1. Studies in fish have shown that repeated exposures produce adverse effects on growth rate at concentrations greater than 0.0024mg/1. EC_{50} (Daphnia magna) (48 hour) 24.4-189mg/1.

13. DISPOSAL CONSIDERATIONS

13.1 General

Disposal should be in accordance with local or national legislation. For further advice contact manufacturer.

14. TRANSPORT INFORMATION

14.1 UN Classification

Class 2 Gases, Division 2.3 Toxic Gas, UN No.1005 (See Note 1)

15. REGULATORY INFORMATION

15.1 Classification and labeling according to Directive 67/548/EEC

Classification	Toxic
Hazard symbol	T, A skull and cross-bones
Risk Phrases	R10: Flammable R23: Toxic by inhalation
Safety Phrases	S7/9: Keep way containers tightly closed and in a well ventilated place.

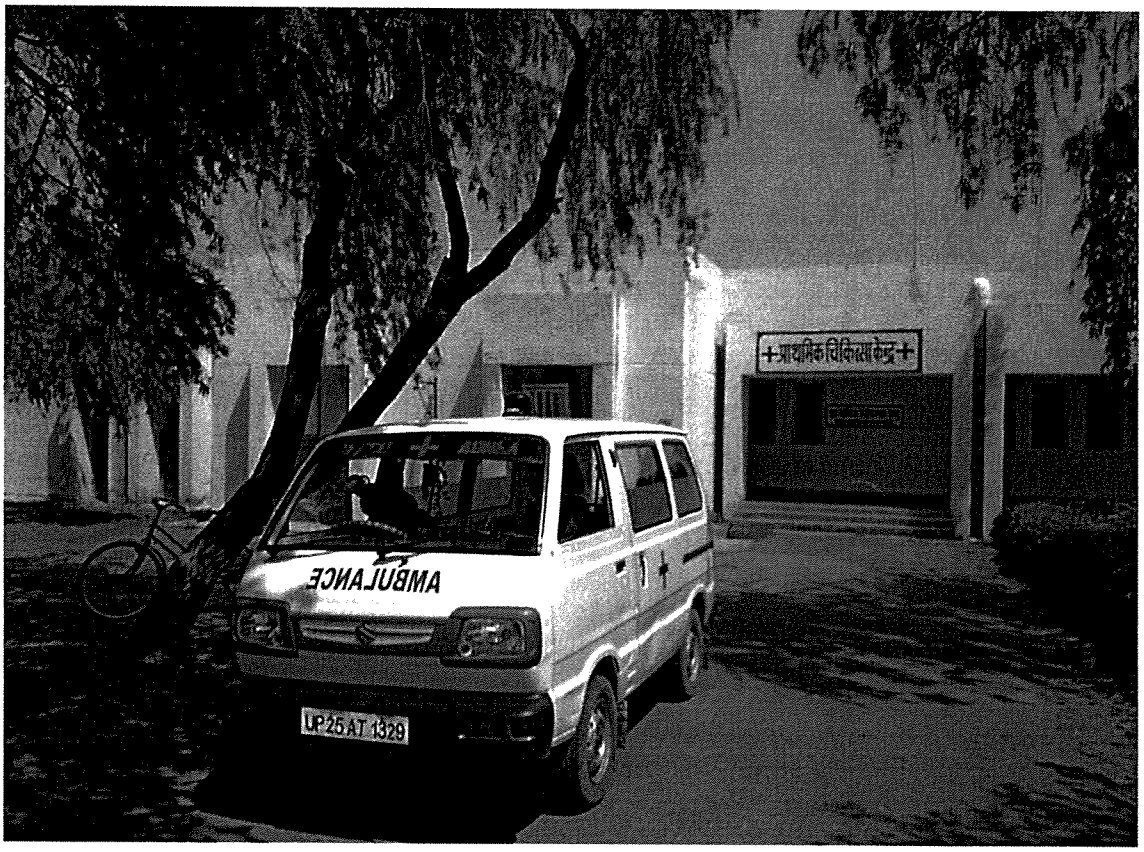
S16: Keep away from sources of ignition. No smoking.
S38: In case of insufficient ventilation wear suitable respiratory equipment.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the labels where possible).

15.2 National Laws

16. OTHER INFORMATION

The information in this Safety Data Sheet is given in good faith and belief in its accuracy based on our knowledge of the substance/preparation concerned at the date of publication. It does not imply the acceptance of any legal liability or responsibility whatsoever by the Company for the consequences of its use or misuse in any in any particular circumstances.

Annexure-11



106992

Rohilkhand Medical College & Hospital, Bareilly

IFFCO
Health Check Programme

Name: Mr Neetesh Kashyap Age: 49 Sex: M Date: 8/1/25
Address: IFFCO Township C.R. No.: 202511039

PRESENT HISTORY

HPN	✓	Any Other
Diabetes	ϕ	
Smoking	ϕ	
Nutrition	ϕ	
Exercise	ϕ	
Occupation	ϕ	

Family History

HPN	✓
DM	✓
CAD	ϕ
CANCER	ϕ
GENETIC	ϕ

PAST HISTORY

- H/O HTN (+) (on medication)
- H/O Surgery of Hernia in 2009.

EXAMINATIONS

GENERAL

Weight	82 kg
Height	171 CM
BP	140/80 mmHg
Pulse	78/min
Anaemia	(-).
Thyroid	(+) TSH - 6.49.
R/R	16/min
Oedema	(-).
Peripheral Pulsations	(+)

SYSTEMIC

ABD	
Liver	Non-palpable.
Spleen	Not enlarged.
Ascites	(-).
Hernial Sites	(-)

BMI	28.04

CHEST

Trachea	WNL.
Resonance	
Breathing	
Accomniment	

CVS

Apex Beat	WNL
Palpable Sound	
Thrill	
S1	
S2	
Murmur	

CNS

Higher Functions	WNL.
Cranial Nerves	
Motor	
Sensory	
Superficial Reflexes	
Deep Tendon Jerks	

Gynae Checkup	
ENT Checkup	✓
EYE Checkup	✓
Dental Checkup	

CLINICAL ASSESSMENT

INVESTIGATION ADVISED

HB	14.3
TLC	4,720
DLC	B0 P51 L35 E8 M6
ESR	20
PLATELET	—
FBS	90
PPBS	105
S CREATININE	0.81
BLOOD UREA	20.0
ALK PO	—
TSH	6.49
S. URIC ACID	8.5
BLOOD GROUP	—
S. Billirubin	—
S. Proteins	—
SGOT	—
SGPT	27.0
Urine R+M	WNL
S.PSA	0.75
Any Other	—

PFT	(N)
ECG	(N)
Audiometry	B/L High freq SNHL loss
X-RAY CHEST PA	(N)
MAMMOGRAM	—
PAP SMEAR	—
USG	WNL
ECHO	Trivial TR
TMT	—

LIPID PROFILE

TC	171
TG	96
HDL-C	57
LDL-C	95
VLDL-C	—

FINAL ASSESSMENT

RISK FACTORS: H/O HTN (+), F/H/O HTN & DM T2 (+).

IMPROVEMENT AREAS

ADVISE: REGARDING EXERCISE Exercise or Walk regularly for 30 min.

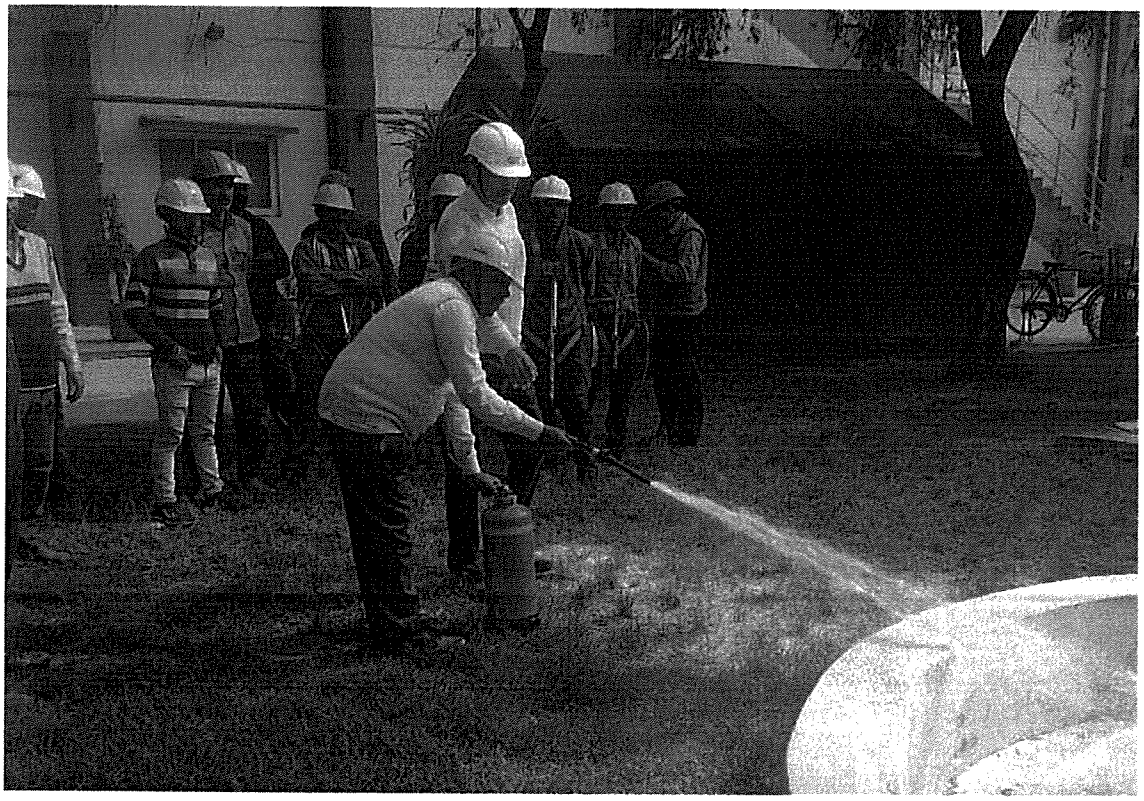
NUTRITION Green leafy vegetables, high protein diet, Salads, Plenty of fluids, No added sugar & processed.

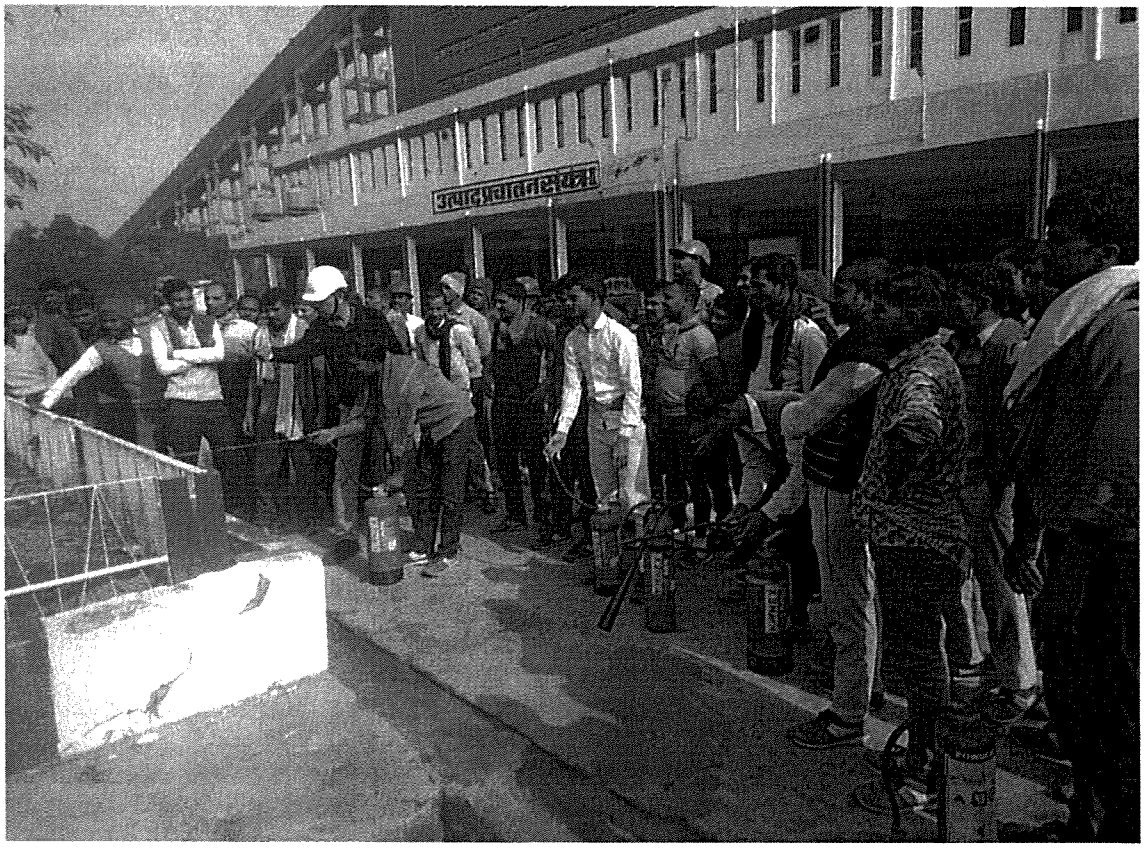
MEDICATION Continue as advised for HTN.

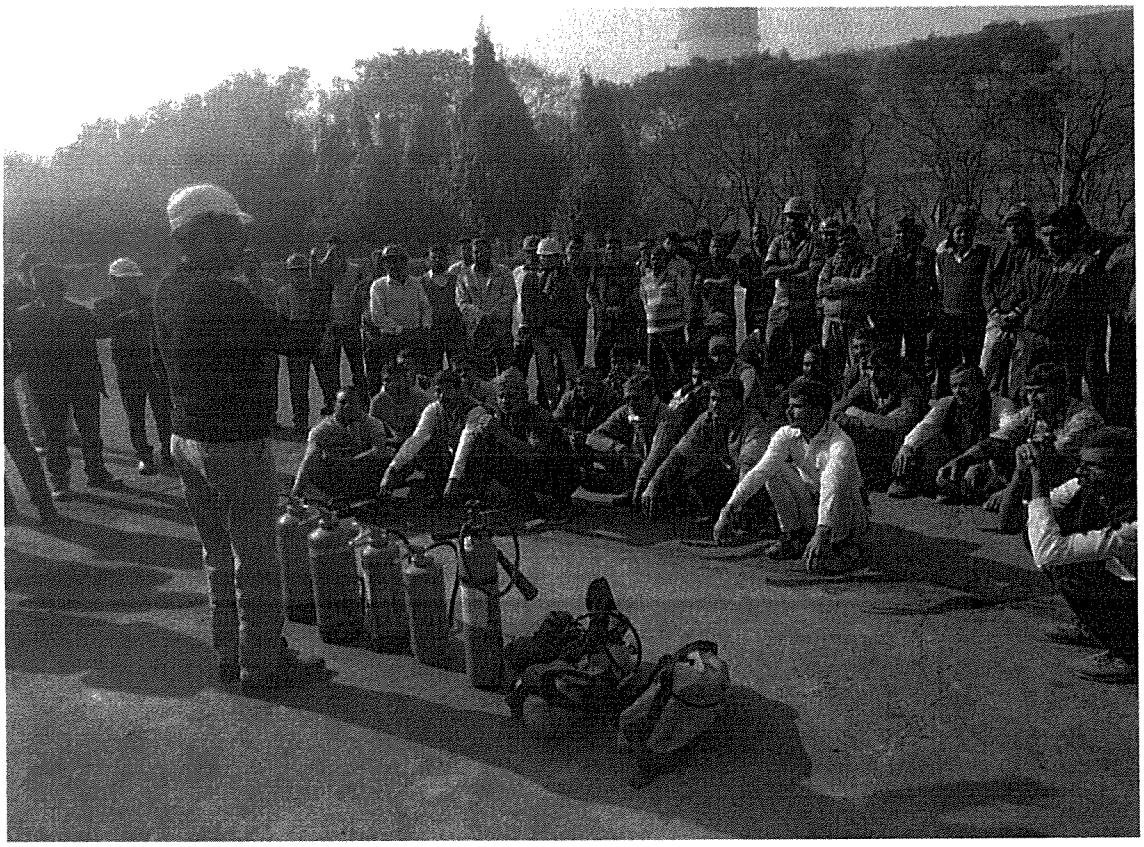
STRESS MANAGEMENT Yoga & Meditation. Sleep atleast 6-7 hrs/day.

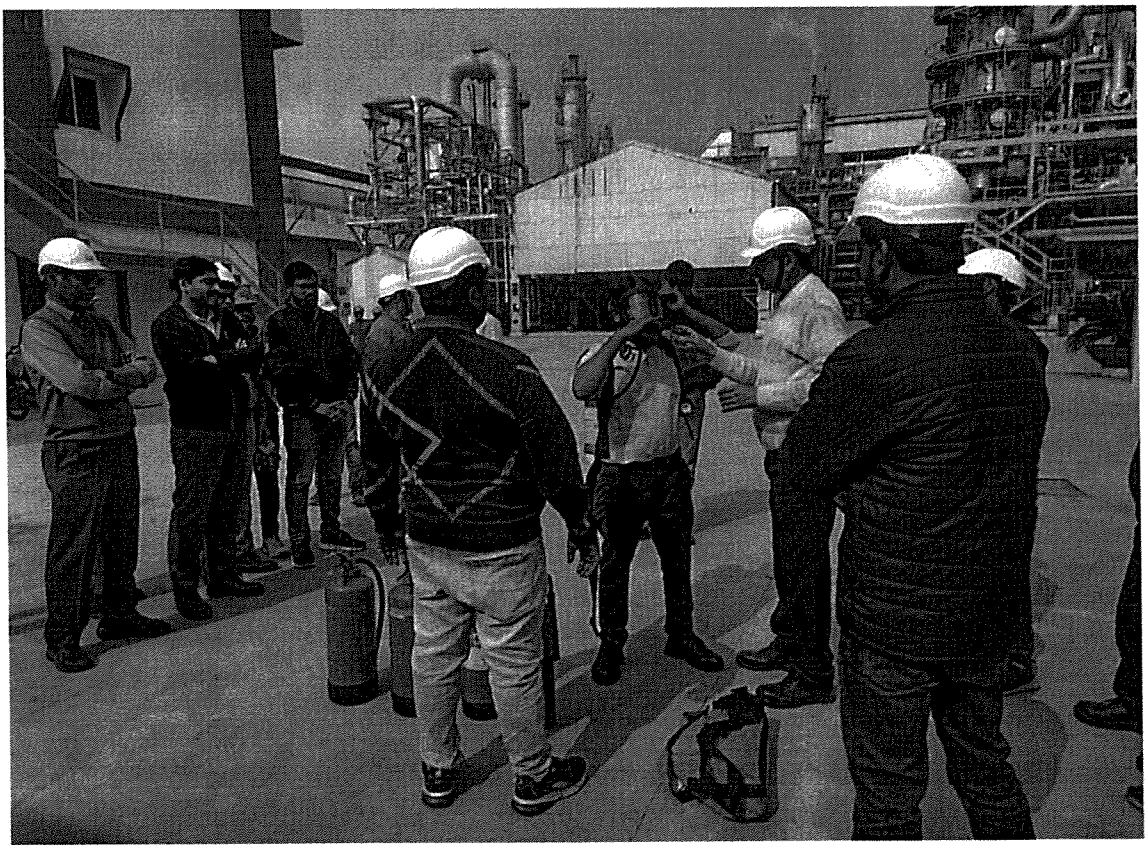
Signature of Consultant Incharge
8/1/21

Annexure-12




अग्निशमन सेवा





SCHEDULE OF SAFETY TRAINING AND DEMONSTRATION OF FIRE EQUIPMENTS

Sr. No.	Plant	Date	Time	Responsibility (Fire & Safety)
1.	PH-Plant (Including maintenance staff & contractor employees)	16/12/2024 Monday	10.30 hrs	Mr. A K Singh / A-Shift In charge
2.	Transportation (Including maintenance staff, contractor & transporters employees)	17/12/2024 Tuesday	15.30 hrs	Mr. A K Singh / B-Shift In charge
3.	Main Store Staff (Including contractor employees)	18/12/2024 Wednesday	15.00 hrs	Mr. A K Singh / B-Shift In charge
4.	Ammonia-I (Including maintenance staff & contractor employees)	27/01/2025 Monday	11.00 hrs	Mr. A K Singh / A-Shift In charge
5.	Urea – I (Including maintenance staff & contractor employees)	28/01/2025 Tuesday	11.00 hrs	Mr. A K Singh / A-Shift In charge
6.	Ammonia-II & Urea-II (Including maintenance staff & contractor employees)	29/01/2025 Wednesday	11.00 hrs	Mr. A K Singh / A-Shift In charge

RAIN WATER HARVESTING SYSTEMS INSTALLED AT IFFCO AONLA

IFFCO's philosophy does not end with manufacture of fertilizer only – It has unstinted commitment toward environmental protection. IFFCO Aonla is conscious of its responsibilities towards resource conservation and committed to ensure sustainable development & ecological balance.

To sustain the ground water availability, 7 nos. rooftop rain water harvesting systems installed at GET Hostel, Kendriya Vidyalaya/Tiny Tots School, Hospital, Guest House/New Club, Anand Bhawan Club building, Open Air Theatre, and Administration Building are in operation in IFFCO Aonla Complex.

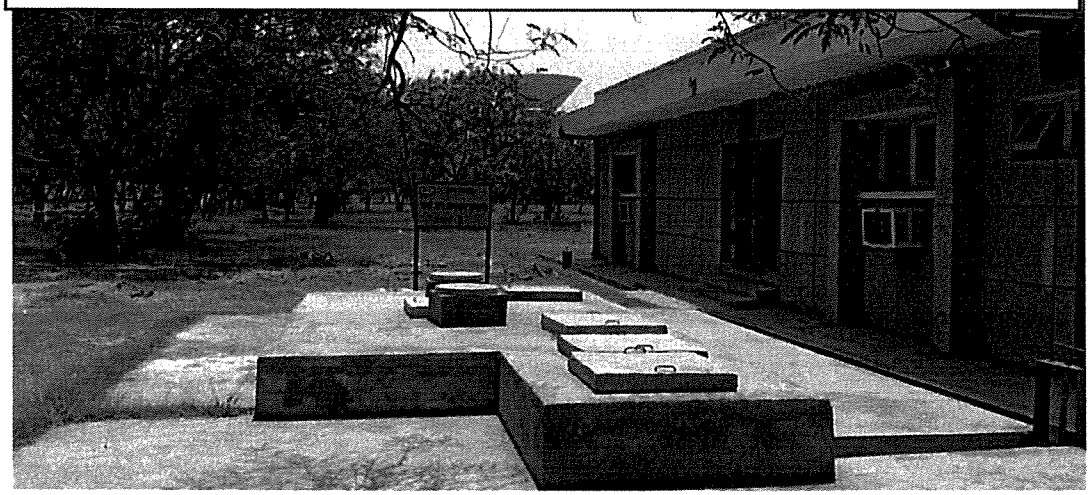
2 nos. Rain Water Harvesting systems also have been installed at Ring Road; one near STP and the other near Quarter No. B-432 for the recharge of storm drain rain water in Township.

The photographs of the RWH Systems installed at IFFCO Aonla are given hereunder.

Roof-Top Rain Water Harvesting System at GET Hostel in Township

Roof-Top Rain Water Harvesting System at Kendriya Vidyalaya in Township

Roof-Top Rain Water Harvesting System at Hospital in Township



Roof-Top Rain Water Harvesting System at Guest House in Township

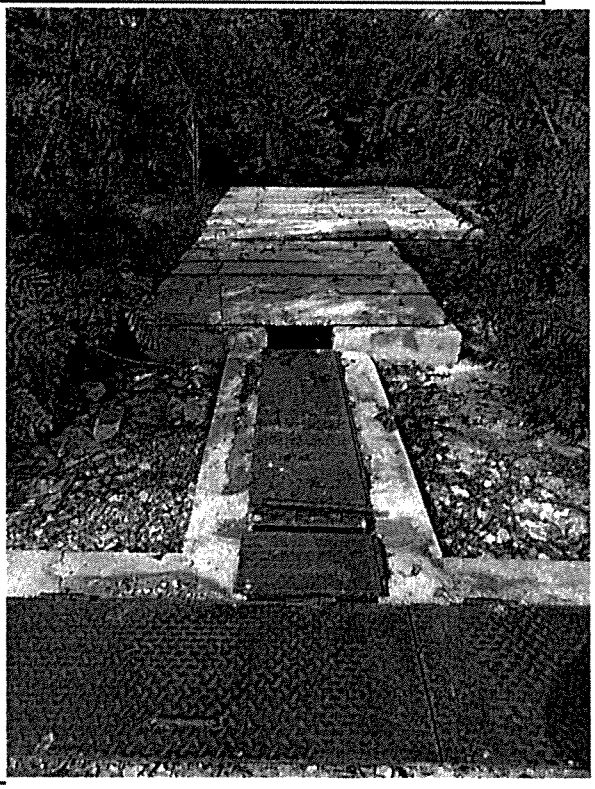
Roof-Top Rain Water Harvesting System at Administration Building

Roof-Top Rain Water Harvesting System at Anand Bhawan Club in Township

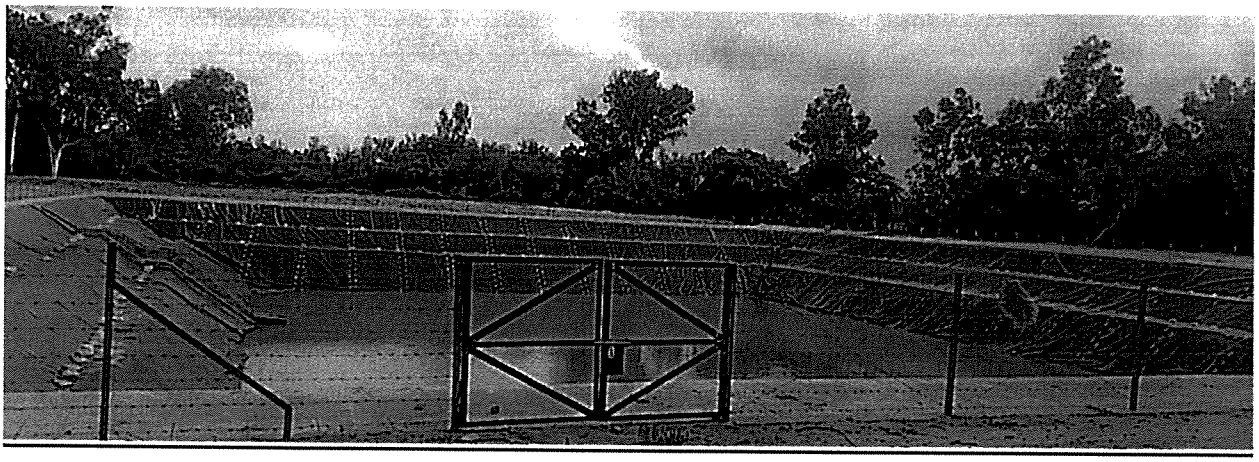
Roof-Top Rain Water Harvesting System at Open Air Theatre in Township

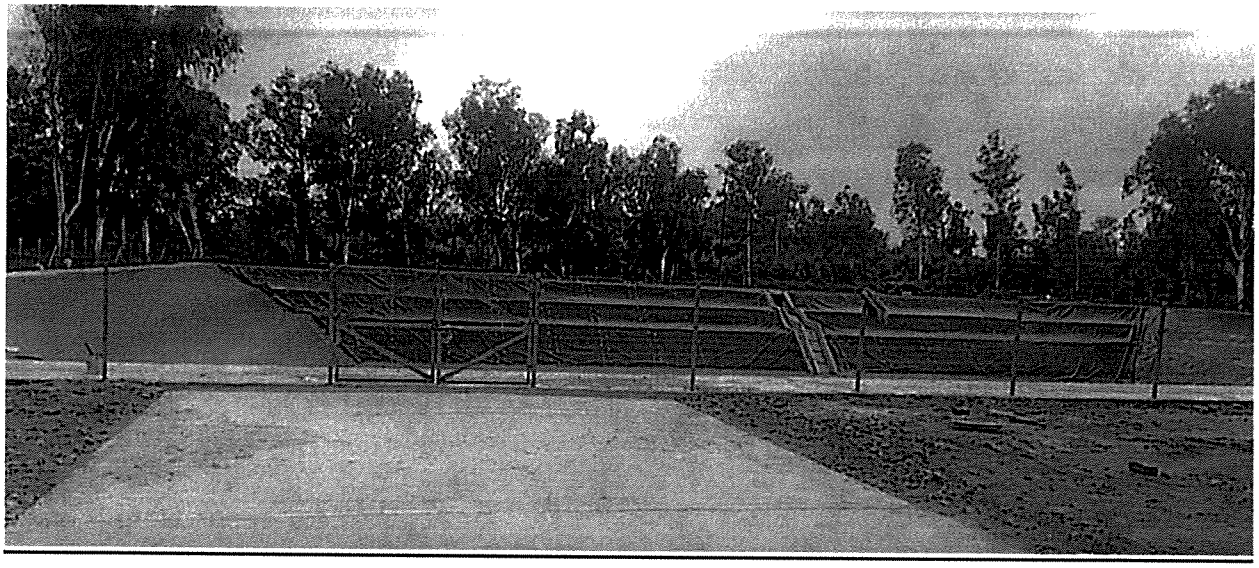
Rain Water Harvesting System at Ring Road near B-432 in Township

Rain Water Harvesting System at Ring Road near STP in Township

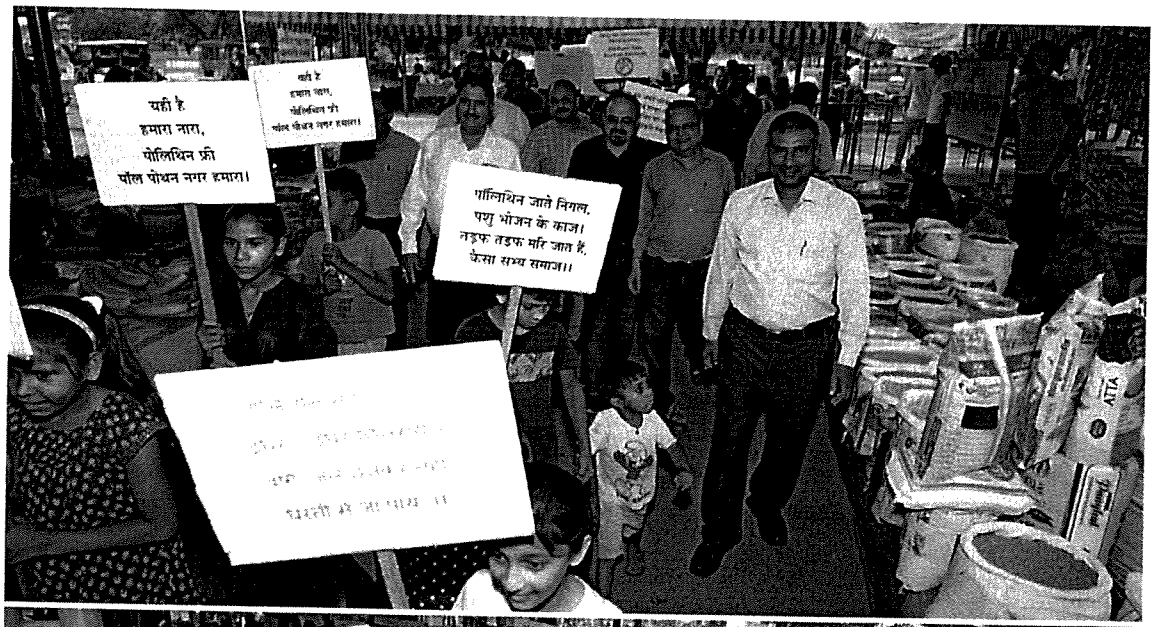


Rain Water Storage Ponds



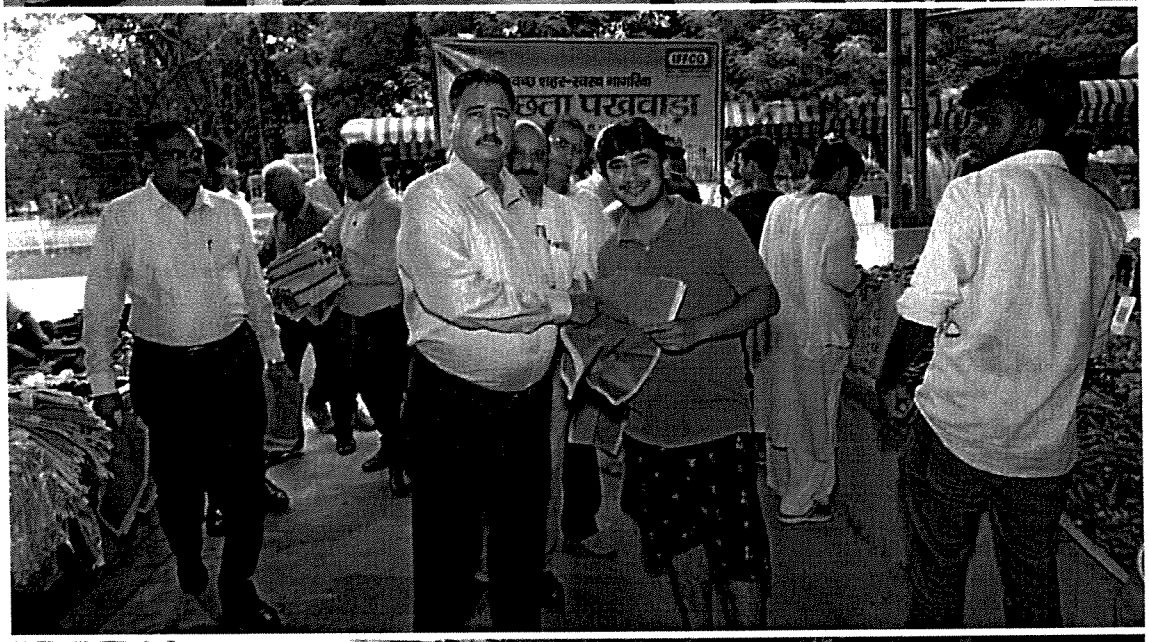


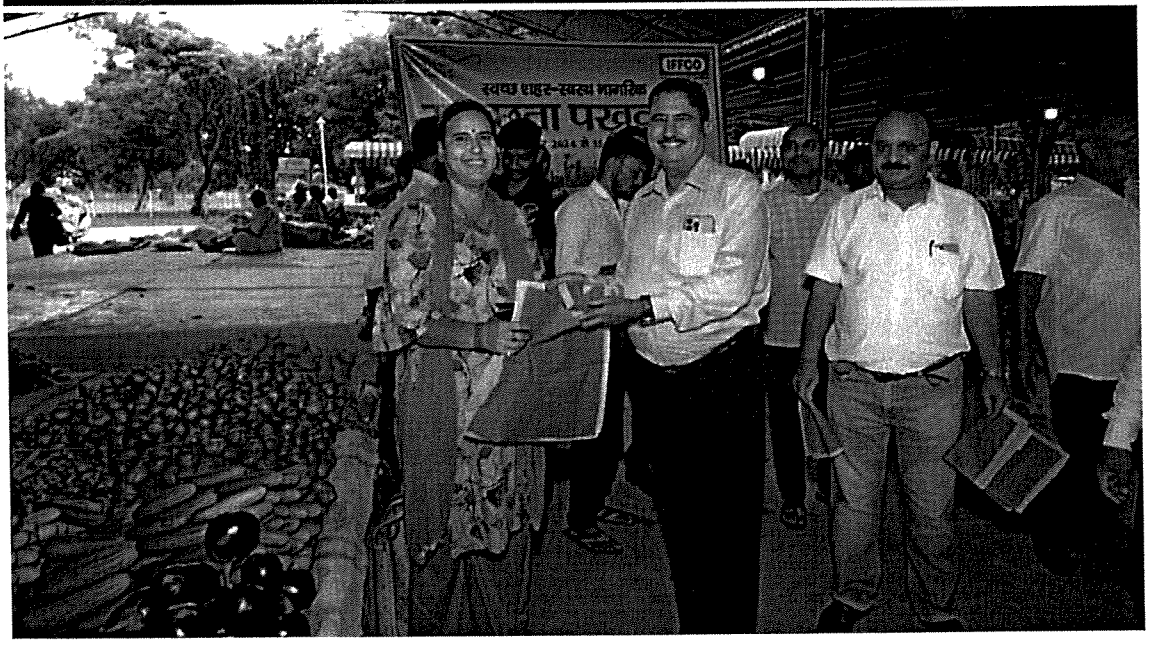
Environment Awareness Rally 'Don't use of Single Use Plastic & Polythene Bags'


यही है
हमारा नारा,
पोलिथिन फ्री
पॉलथीन नगर हमारा।
पॉलिथिन जाते निगल,
पशु भोजन के काज।
तड़फ तड़फ मरि जात हैं,
कैसा सभ्य समाज।।


NO

Awareness Program during Swachchhata Abhiyan






IFFCO


IFFCO


IFFCO
स्वच्छ शहर-स्वस्थ नागरिक


IFFCO
स्वच्छ शहर-स्वस्थ नागरिक
सितम्बर 2024


IFFCO
स्वच्छ शहर-स्वस्थ नागरिक

Copy to: Environment Section

Annexure-15

IFFCO
Wholly owned by Cooperatives

INDIAN FARMERS FERTILISER CO-OPERATIVE LTD.

(INSPECTION SECTION)

AONLA UNIT

NOISE LEVEL AT DIFFERENT LOCATIONS IN PLANT & TOWNSHIP AREA

Date: 19.11.2024

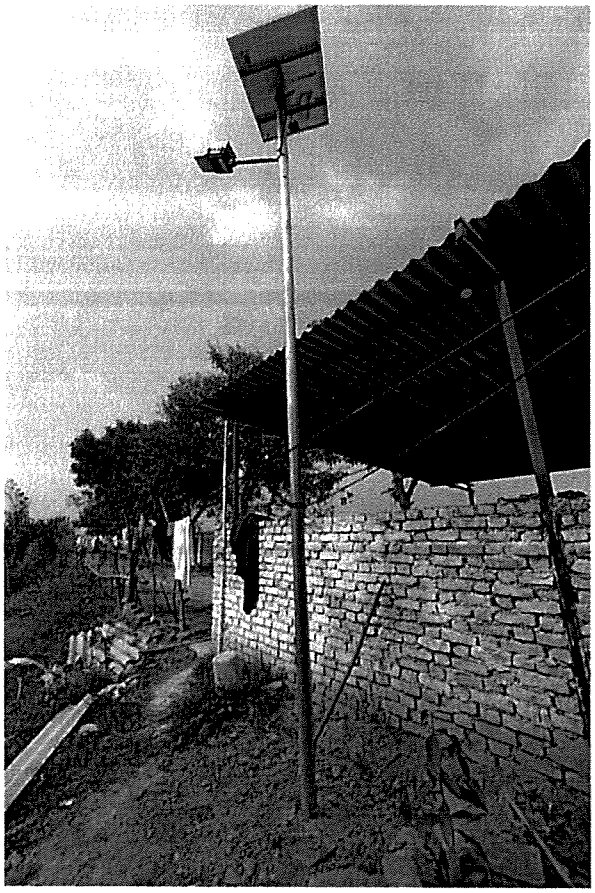
Pt. No.	Plant	Location	Reading in dBA	Remarks
1	Ammonia-I	i) Compressor House control room	68.1	
		ii) 100m from Ammonia-I compressor house	61.4	Near flare stack
		iii) 500m from compressor house (Ambient Air)	55.1	Near Fire & safety Dept.
		vi) Approx. 1m distance rotary compressor	98.7	1 m from TK1421 turbine
2	Ammonia-II	i) Compressor House control room	66.5	
		ii) 100m from Ammonia-II compressor house	68.2	Near Raw Water Storage plant
		iii) 500m from compressor house (Ambient Air)	57.3	Near bore well No.-7
		iv) Approx. 1m distance rotary compressor	99.9	1 mtr. from TK3431 turbine
3	Urea-I	i)Compressor House floor 11/21 unit	97.0/95.8	
		ii) 100m from Urea-I compressor house	77.0	Near B.C.-1starting point
		iii) 500m from compressor house (Ambient Air)	64.5	Near PH-I Transfer House
		vi) Approx. 1m distance from rotary compressor	94.2/95.2	1 mtr. from 11/21TK-1 turbine
4	Urea-II	i) Compressor House control room 31/41 unit	67.1/68.6	
		ii) 100m from Urea-II compressor house	69.0	Near U-II electrical Maintenance office
		iii) 500m from compressor house (Ambient Air)	61.2	Near Ammonia Storage Plant
		iv) Approx. 1m distance from rotary compressor	95.2/94.0	1 mtr. from 31/41TK-1 turbine
5	PH-I	i) Control Room	58.3	
		ii) Shift Engr. Room	52.1	
		iii) Stitching M/c floor	74.0	
6	PH-II	i) Control Room	61.4	
		ii) Shift Engr. Room	57.1	
		iii) Stitching M/c floor	71.5	
7	SGPG	i) Control Room	60.1	
		ii) Approx. 1m distance from GTG-I (Turbine)	88.8	
		iii) Approx. 1m distance from GTG-II (Turbine)	89.2	
		iv) GTG hall near GTG I&II	86.3	
		v) 100m from GTG I&II	73.9	Near U-II battery Limit
		vi) Shift Engr. Room	53.1	
8	Township	GET Hostel	47.9	Near GET hostel main gate
9	Township	Guest House	51.3	Near Guest house main gate

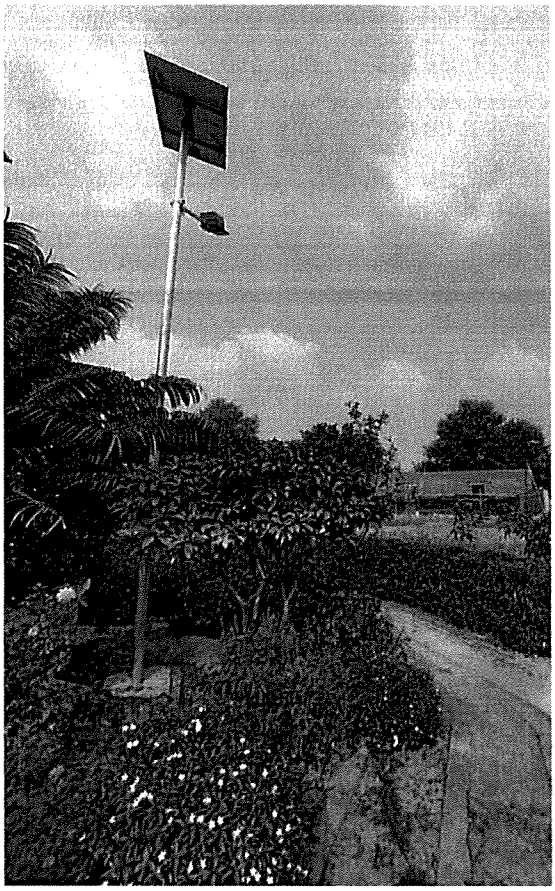
Inspected by

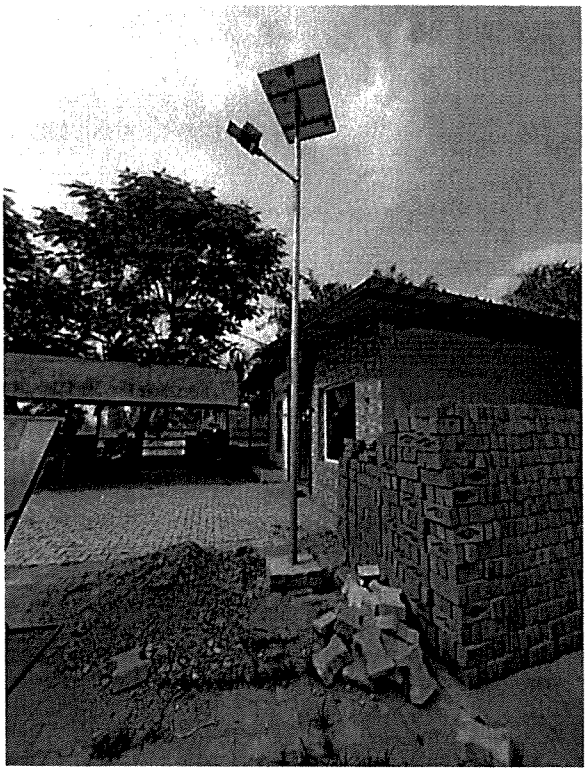
Reviewed by 19.11.2024

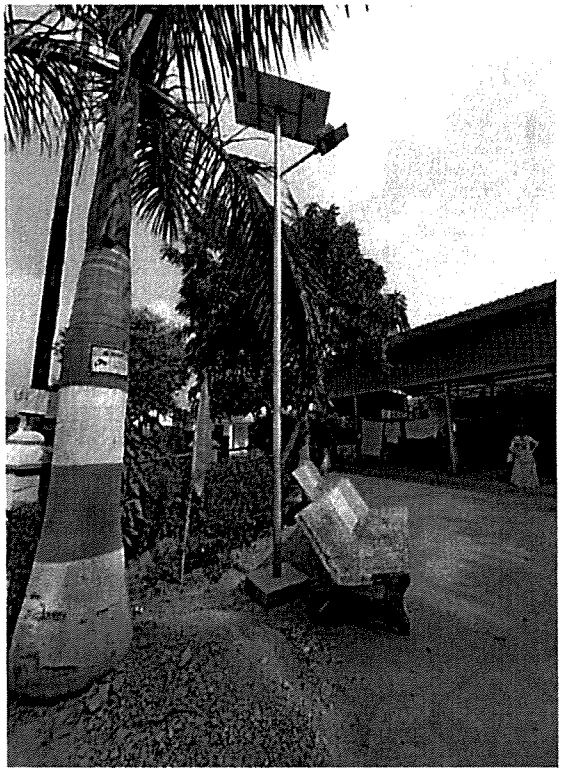
Approved by

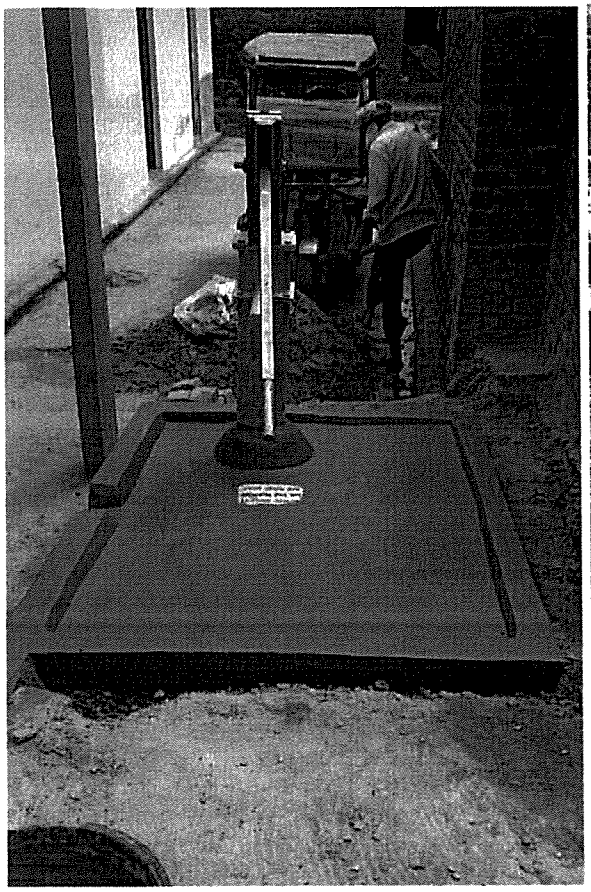
Annexure-16

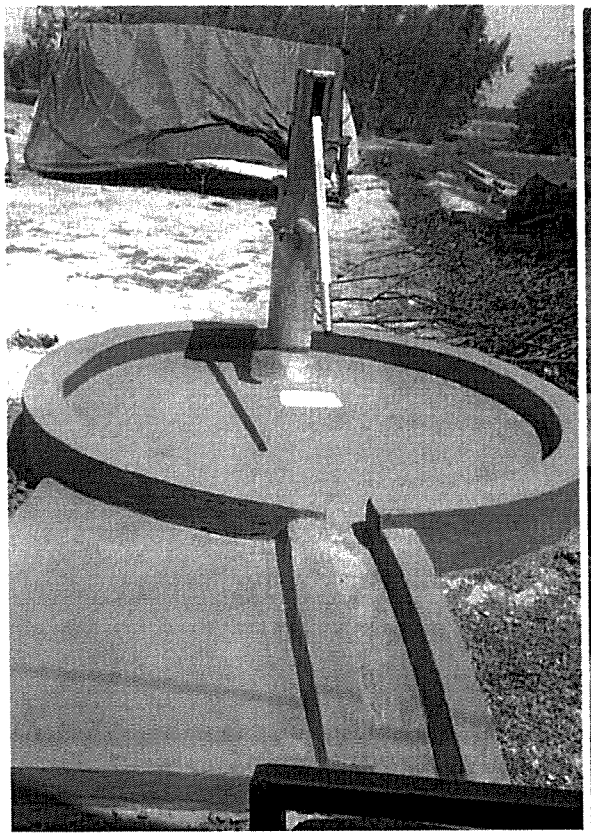


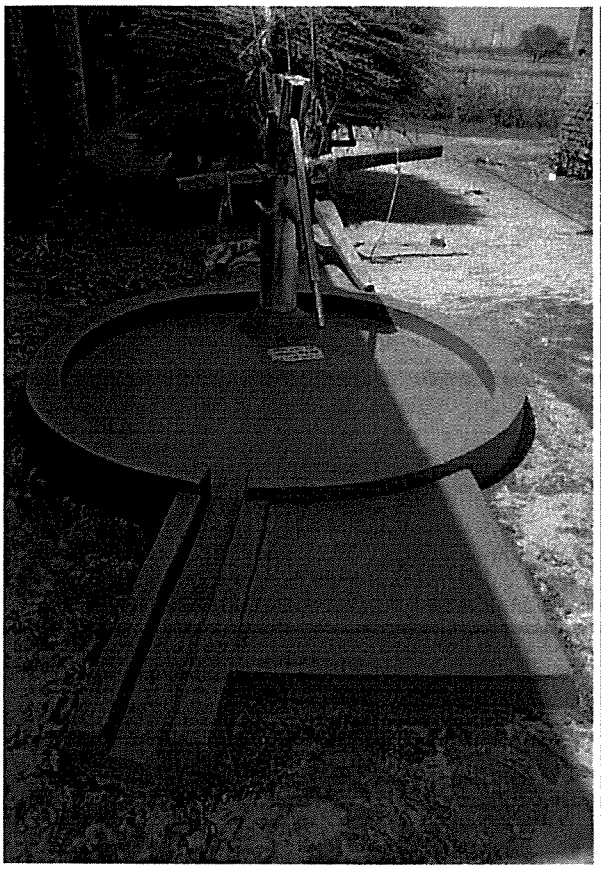


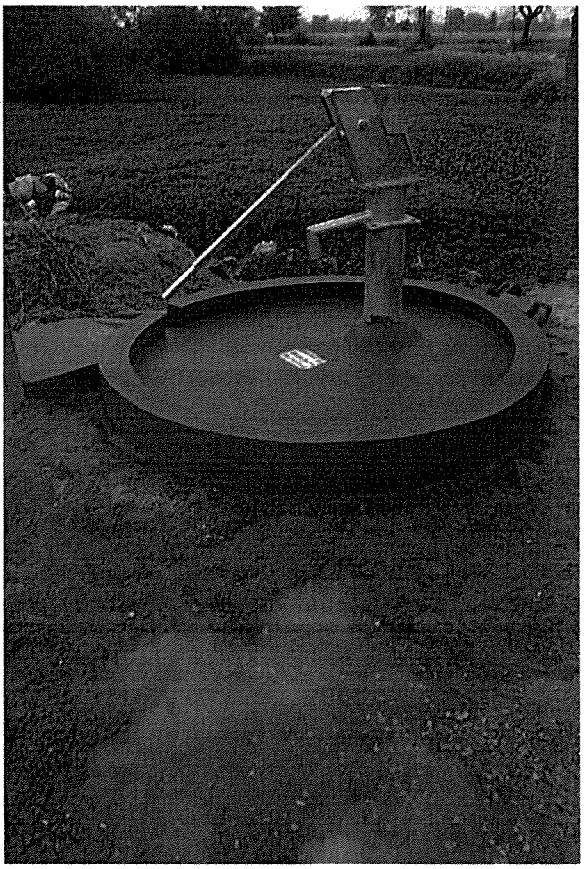


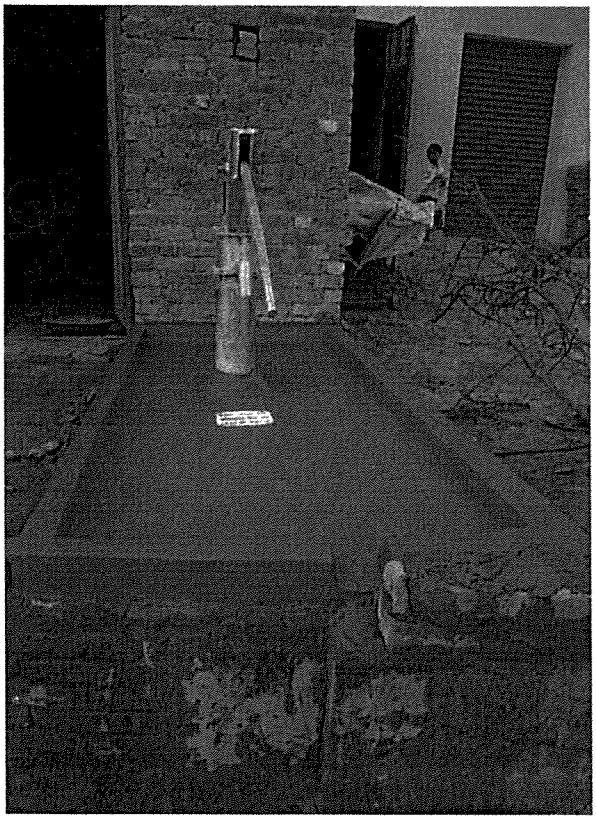


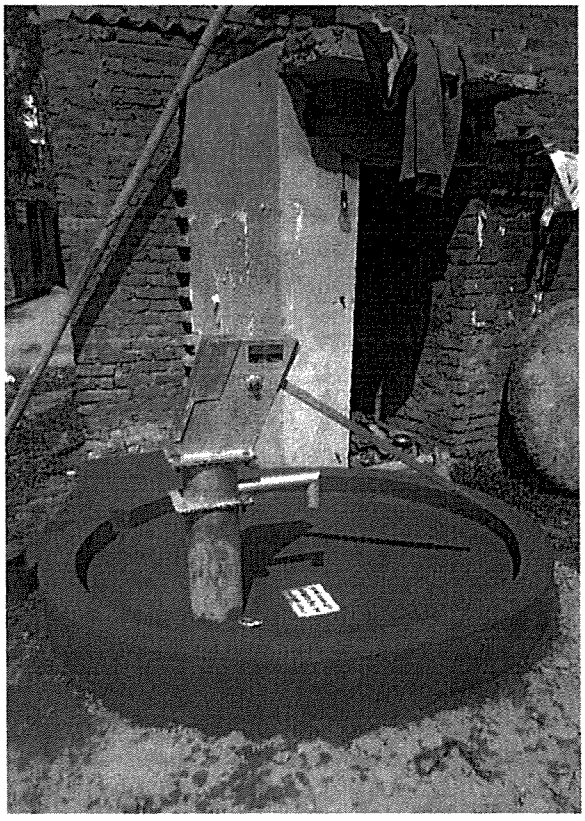


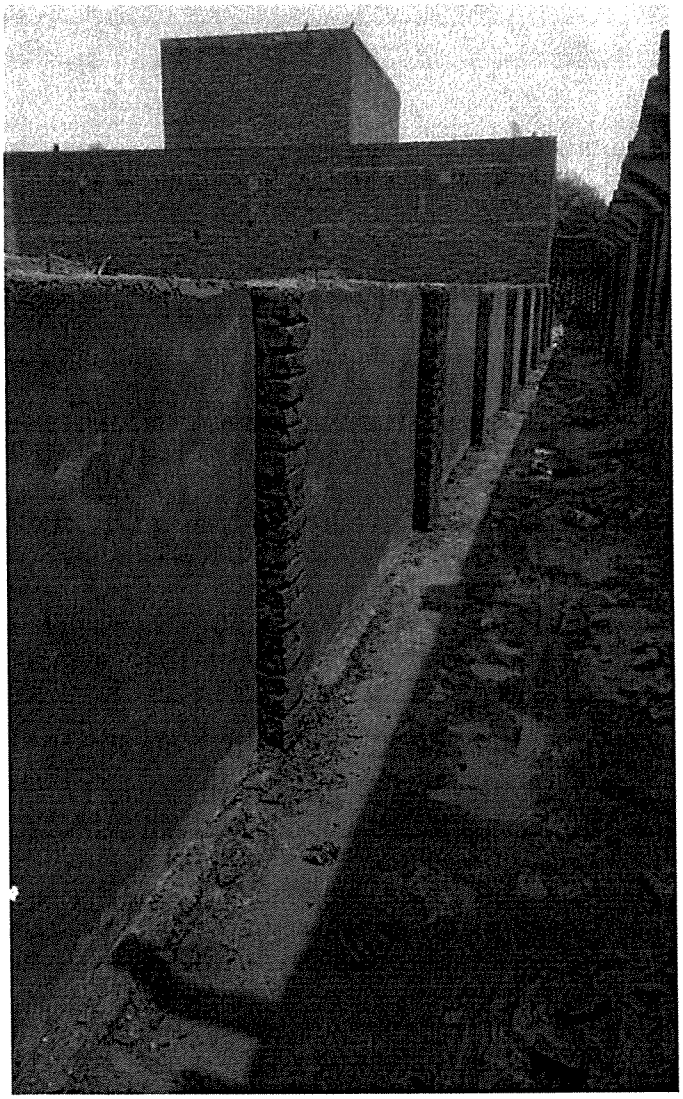












Annexure- 17

इंडियन फारमर्स फर्टिलाइजर कोआपरेटिव लिमिटेड
INDIAN FARMERS FERTILISER COOPERATIVE LIMITED

पूर्णतः सहकारी स्वामित्व
Wholly owned by Cooperatives

दिनांकः 21.08.2024

AP/Misc./2024

सेवा में,

श्रीमान नगर आयुक्त
नगरनिगम, बरेली

महोदय,

आपको अवगत कराना है कि इफको आँवला इकाई में नैनो उर्वरक (तरल) के निर्माण के लिए मौजूदा नैनो उर्वरक संयंत्र की प्रस्तावित आधुनिकीकरण परियोजना को पर्यावरण वन व जलवायु परिवर्तन मंत्रालय द्वारा पर्यावरणीय स्वीकृति सं-EC24A1904UP5875849N दिनाँक 02/05/2024 को प्रदान की गयी है, जिसकी प्रति आपकी जानकारी हेतु सादर प्रेषित की जा रही है।

भवदीय

कृते इफको आँवला इकाई

आँवला इकाई, पॉल पोथन नगर, पो. आ. इफको टाऊनशिप, जिला बरेली – 243403 (उ. प्र.)
Aonla Unit, PAUL POTHEN NAGAR, P.O. IFFCO TOWNSHIP, Distt. Bareilly - 243403 (U.P.)

Unit Head Office : 0581-2404003
Technical : 0581-2404034
Pers & Admn: 0581-2404038
Production : 0581-2404016
Finance : 0581-2404070
Maintenance : 0581-2404026
IT Services : 0581-2404020
फैक्स/Fax 91-581-2404227
Materials : 0581-2404028
Utilities : 0581-2404016
Transportation : 0581-2404571

IFFCO Website : www.iffco.in

IFFCO
पूर्णतः सहकारी स्वामित्व
Wholly owned by Cooperatives

इंडियन फारमर्स फर्टिलाइजर कोआपरेटिव लिमिटेड
INDIAN FARMERS FERTILISER COOPERATIVE LIMITED

AP/Misc./2024

दिनांकः 21.08.2024

सेवा में,

श्रीमान एस डी एम,
एस डी एम कार्यालय, आँवला

महोदय,

आपको अवगत कराना है कि इफको आँवला इकाई में नैनो उर्वरक (तरल) के निर्माण के लिए मौजूदा नैनो उर्वरक संयंत्र की प्रस्तावित आधुनिकीकरण परियोजना को पर्यावरण वन व जलवायु परिवर्तन मत्रालय द्वारा पर्यावरणीय स्वीकृति सं-EC24A1904UP5875849N दिनाँक 02/05/2024 को प्रदान की गयी है, जिसकी प्रति आपकी जानकारी हेतु सादर प्रेषित की जा रही है।

भवदीय

कृते इफको आँवला इकाई

आँवला इकाई, पॉल पोथन नगर, पो. आ. इफको टाऊनशिप, जिला बरेली – 243403 (उ. प्र.)
Aonla Unit, PAUL POTHEN NAGAR, P.O. IFFCO TOWNSHIP, Distt. Bareilly - 243403 (U.P.)

Unit Head Office : 0581-2404003 Finance : 0581-2404070 Materials : 0581-2404028
Technical : 0581-2404034 Maintenance : 0581-2404026 Utilities : 0581-2404016
Pers & Admn. 0581-2404038 IT Services : 0581-2404020 Transportation : 0581-2404571
Production : 0581-2404016 फैक्स;Fax 91-581-2404227

IFFCO Website : www.iffco.in

IFFCO
पूर्णतः सहकारी स्वामित्व
Wholly owned by Cooperatives

इंडियन फारमर्स फर्टिलाइजर कोआपरेटिव लिमिटेड
INDIAN FARMERS FERTILISER COOPERATIVE LIMITED

AP/Misc./2024

दिनांकः 21.08.2024

सेवा में,

श्रीमान चेयरमैन
नगरपालिका, आँवला

महोदय,

आपको अवगत कराना है कि इफको आँवला इकाई में नैनो उर्वरक (तरल) के निर्माण के लिए मौजूदा नैनो उर्वरक संयंत्र की प्रस्तावित आधुनिकीकरण परियोजना को पर्यावरण वन व जलवायु परिवर्तन मंत्रालय द्वारा पर्यावरणीय स्वीकृति सं-EC24A1904UP5875849N दिनाँक 02/05/2024 को प्रदान की गयी है, जिसकी प्रति आपकी जानकारी हेतु सादर प्रेषित की जा रही है।

भवदीय

कृते इफको आँवला इकाई

प्राप्त
21-8-2024
नगर पालिका परिषद
आंवला (बरेली)

आँवला इकाई, पॉल पोथन नगर पो. आ. इफको टाऊनशिप, जिला बरेली – 243403 (उ. प्र.)
Aonla Unit, PAUL POTHEN NAGAR, P.O. IFFCO TOWNSHIP, Distt. Bareilly - 243403 (U.P.)

Unit Head Office : 0581-2404003 Finance : 0581-2404070 Materials : 0581-2404028
Technical : 0581-2404034 Maintenance : 0581-2404026 Utilities : 0581-2404016
Pers & Admn: 0581-2404038 IT Services : 0581-2404020 Transportation : 0581-2404571
Production : 0581-2404016 फैक्स/Fax 91-581-2404227

IFFCO Website

Annexure-18

खेत की तारकशी में उतरे करंट से किसान की मौत

वजीरगंज थाना क्षेत्र के गांव लहरा लाडपुर में सुबह की घटना

बदायूं की घटना

किशोरी की हत्या में सिपाही समेत चार पर मुकदमा दर्ज

शिवपाल को बदायूं की सीमा से बाहर रहने का निर्देश

सख्ती

शिवपाल सिंह यादव, राष्ट्रीय महासचिव सपा।

मुख्यमंत्री पर आपत्तिजनक टिप्पणी, शिक्षक निलंबित

नाले में मिला बरेली के बाबा का शव

राष्ट्र नायकों का अपमान स्वीकार नहीं

मुख्यमंत्री बोले

लुटेरी दुल्हन समेत सात गिरफ्तार

CISCE result: Pass percentage in class 10, 12 exams rises

Board Also Discontinued Merit Lists To Prevent Unhealthy Competition

Students react as they check their scores after the announcement of ICSE Board exam results at Shriram Millennium School in Noida

New Delhi: Girls outshone boys yet again in Class 10 and 12 board exams conducted by the Council for the Indian School Certificate Examinations (CISCE), while the pass percentage for both the classes recorded an increase. The results were announced on Monday morning. The board also discontinued the practice of issuing merit lists from this year to prevent unhealthy competition among students.

The pass percentage for Class 10 is 99.47, while it is 98.19 for Class 12. Last year, the respective pass percentage was 98.94 and 96.93. "In Class 10, the pass percentage of boys is 99.31%, while that of girls is 99.65%. Similarly, boys have achieved a pass percentage of 97.53% in class 12 exams while the pass percentage of girls stood at 98.92%," CISCE chief executive and secretary Joseph Emmanuel said.

"We have discontinued the practice of issuing merit lists for board exams from this year. The move is aimed at avoiding unhealthy competition among students," he added. The CBSE had last year stopped the practice of announcing merit lists for the both these board classes.

During the pandemic, when board exams were not conducted due to closure of schools and students were marked using alternative evaluation methods, both CBSE and CISCE had not issued any merit list. However, the practice was resumed after the schools reopened.

In Class 10, the best-performing schools abroad are from Indonesia, Singapore and Dubai with a pass percentage of 100. In class 12, the best-performing schools are from Singapore and Dubai.

The ICSE examination (Class 10) was conducted in 60 written subjects of which 20 were Indian languages, 13 were foreign languages and one classical language.

The ICSE exams started on February 21 and concluded on March 28. They were conducted on 18 days. The ISC examination (Class 12) was conducted in 47 written subjects of which 12 were Indian languages, four foreign languages and two classical languages.

For ISC, the exams began on Feb 12 and concluded on April 4. They were conducted on 26 days. A total 2,695 schools presented candidates for the Class 10 exams with 82.48% (2,223) schools attaining a pass percentage of 100.

For class 12, a total of 1,366 schools presented candidates, with 66.18% (904) schools attaining a pass percentage of 100. Over 2.43 lakh candidates had appeared in Class 10 exam, while the number of students who appeared for class 12 examination stood at 99,901.

In Class 10, the western region recorded the highest pass percentage (99.91) followed by the southern region (99.88). The southern region has the highest percentage of girls (49.52) who had appeared in the Class 10 examination. In Class 12, the southern region recorded the highest pass percentage (99.53) followed by the western region having a pass percentage of 99.32. TNN

US thanks ED for successful operation against narco syndicate

Pradeep.Thakur
@timesgroup.com

US officials told ED that more than 8,000 bitcoins, worth over Rs 4,000 crore, were received by 'The Singh Organisation' as proceeds of crime and Singh brothers were involved in narcotics smuggling

New Delhi: US agencies have thanked the Enforcement Directorate (ED) for a successful operation which led to the arrest of a Sikh youth, Parvinder Singh, who represented 'The Singh Organisation', from Haldwani in Uttarakhand last week.

Parvinder, one of the key players of the narcotics syndicate, has been remanded till Wednesday in ED custody. US officials told the probe agency that more than 8,000 bitcoins, worth over Rs 4,000 crore, were received by 'The Singh Organisation' as proceeds of crime. Parvinder, wanted by the US since 2019, when his brother Banmeet was arrested in the UK, was living with his father in Haldwani at the time of his arrest.

Last year, UK authorities extradited Banmeet to the US, where he was convicted last month and sentenced to five years in prison.

The Singh brothers were involved in narcotics smuggling through the network of 'The Singh Organisation' on the dark web. Before the action began here, US authorities shared information with the ED about the organisation's transnational operations and the money trail of over Rs 2,100 crore in possession of Parvinder from the 'proceeds of crime'.

'The Singh Organisation' operated through dark web markets Silk Road, AlphaBay and Hansa, according to the information shared with the Indian agencies. American investigators have seized several dark web communications of the accused revealing their network and involvement of other accused.

After its search operation on May 1, sources said the ED seized bitcoins worth Rs 135 crore from Parvinder in Haldwani where he is currently in ED custody. Agency sources said the accused may not be deported to the US and would rather be tried here under the Prevention of Money Laundering Act.

"US authorities have extended their gratitude and thanked the ED for taking prompt action to execute their requests leading to Parvinder Singh's arrest and crores in drug money being seized," a source in the agency said. American authorities have evinced interest in "mutual capacity building" with ED for future probes and "learn from each other" in such specialised operations involving money laundering using crypto currencies.

During questioning in ED custody, Parvinder shared details of the cryptocurrency wallets used by 'The Singh Organisation' and payments received in bitcoins from drug trafficking activities. Based on information shared by him, the ED conducted another search on May 1 and seized 268 bitcoins, worth Rs 135 crore, from wallets controlled by the syndicate. "After search, enquiries made on blockchain explorer revealed 4,250 bitcoins, worth Rs 2,100 crore, claimed by US authorities to be with Parvinder appears to be lying on the same address as shared by the US," the source said.

NEET: Five members of 'solver gang' held in Patna

▸ Continued from P 1

NTA clarified that some students in Sawai Madhopur forcibly took away the papers before the conclusion of the examination. "A picture of this QP is being linked to alleged incident of paper leak which is mischievous and preposterous. There is no way any external person or agency can access the centres, once the examination starts," said Sadhana Parashar, senior director, NTA. "All other photographs of QP's circulating in social media have no relation to the actual examination which has been administered," she added.

In Patna, five members of a "solver gang" were arrested on Sunday. Solver gangs were active in the NEET exam and several are suspected to have taken the examination in place of real candidates. An MBBS student was caught from Shastri Nagar locality in Patna when he came out after taking the exam. According to NTA sources, 11 impersonators were caught, of which three cases were from Rajasthan. Action has been initiated. Cases of unfair means were also reported, data of which has been collected from 4,750 centres in 571 cities where the exams were conducted.

NTA sources said 11 impersonators were caught, of which three cases were from Rajasthan, and action against them was initiated by authorities

"Action has been taken against impersonators and candidates. In addition, NTA also conducts post-exam data analysis to detect cases of unfair means and action is taken as per the extant rules, which include cancellation of candidature and debarment from future exams," she said.

5 killed, 20 injured in Rajasthan accident: A rashly driven SUV collided with a bike and then crashed into an oncoming bus in a village in Jhunjhunu on Monday. "Biker Suresh (40), 3 SUV passengers and bus driver Hanuman (45) died on the spot," said police. TNN