



**INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
KALOL UNIT**

EPC / 02 /3003

Date 01.04.2026

To,

Ministry of Environment, Forest & Climate Change
Regional Office, Aranya Bhavan,
Sector – 10/A, Gandhinagar,
Gujarat - 382010

Kind Attn.: **Dr. Yogesh Kumar,**
Dy Director (S) / Scientist "C", IRO-Gandhinagar

Sub: Submission of Six-monthly Compliance Report of the Environmental conditions stipulated in Environmental clearance letter for proposed "Expansion/Modernization of the Fertilizer Plant at Plot no. 712/846, 855, 856 of Saij, 17-37 of Dhanaj, Kasturinagar, Kalol, District- Gandhinagar, Gujarat by M/s Indian Farmers Fertiliser Cooperative Limited.

Ref: EC F. No. J-11011/60/2009-IA-II(I) dtd 1.2.2021, 24.8.2021, 7.3.2023 & 16.4.2024

Dear Sir,

IFFCO - Kalol unit has obtained Environmental Clearance(EC) from MoEF&CC vide F. No. J-11011/60/2009-IA-II(I) dtd 1.2.2021, 24.8.2021, 7.3.2023 & 16.4.2024 for (1) the expansion / modernization of the fertiliser plant (2) Expansion of fertiliser plant by installation of new nano urea plant (3) Expansion of Existing Fertilizer Plant for Manufacturing Nano Fertilizer and Nano Micronutrients (4) Expansion and Modernisation of Existing Fertilizer Plant for Manufacturing Nano Fertilizer and Nano Micronutrients at Plot no. 712/846, 855, 856 of Saij, 17-37 of Dhanej, Kasturinagar, Kalol, District- Gandhinagar, Gujarat.

In this context, as per the conditions laid down in the Environmental Clearance letter, please find attached herewith Six-monthly Compliance report along with all the requisite annexures as per the guidelines of the MoEF&CC.

Thanking You,

Yours Faithfully,
For, IFFCO-Kalol unit

Sandeep Ghosh
1/4/2026
(Sandeep Ghosh)
Executive Director

Encl.: As above

CC: 1) Member Secretary, GPCB, Gandhi Nagar
2) Regional Director, Zonal Office (West), CPCB, Vadodara

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SIX MONTHLY COMPLIANCE REPORT

Environmental Clearance Vide
F. No. J-11011/60/2009-IA-II(I) dated 16.04.2024,
dated 07.03.2023, dated 24.08.2021 and dated 01.02.2021

Submitted By:



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INDIAN FARMERS FERTILISER COOPERATIVE LIMITED

Kalol Unit, Plot no. 712/846, 855, 856 of Saij, 17 - 37 of Dhanej,
Kasturinagar, Kalol GIDC, District: Gandhinagar,
Gujarat



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Subject: Expansion and Modernization of Existing Fertilizer Plant for Manufacturing Nano Fertilizer and Nano Micronutrients at IFFCO Kalol Unit

(Reference: Ministry letter No. F. No. J-11011/60/2009 – IA – II (I) dtd. 16.04.2024)

Environmental clearance letter is attached as **Annexure - IA.**

TABLE: 1

Sr. No.	Condition	Compliance Status
A. Specific Conditions		
i)	As proposed, the manufacturing process of nano-fertilizer plant is a closed loop reactor vessel setup with regulated control and steam being produced in the existing plants is being used for operation of plant. Stack of adequate height shall be provided to Additional gas fired LP Boiler of 6 TPH for Nano Fertiliser plant. Stack of adequate height shall be provided to additional DG set of 2x250 KVA as per CPCB guidelines.	<ul style="list-style-type: none"> • The manufacturing process of nano-fertilizer plant is fully closed loop reactor vessel setup with regulated control system and steam produced in the existing urea plant is used for operation in Nano fertiliser plant. • If required, additional gas fired LP Boiler of 6 TPH for Nano fertiliser plant shall be installed along with stack of adequate height. • Stack of adequate height has been provided to additional DG set of 2 x 250 KVA as per CPCB guidelines.
ii)	The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.	The scrubbing media (DM Water) from Ammonia Scrubber(V-1207) is reused in the process. Efficiency of scrubber has been monitored regularly and maintained properly. The emission level is within the prescribed standards. Latest analysis report pertaining to gaseous emission of Ammonia Scrubber (V - 1207) issued by M/s Stride Green Technologies LLP, Indrad, Kadi, Mehsana (NABL accredited Lab) is attached as Annexure – I.
iii)	Total fresh water requirement from Sardar Sarover Narmada Nigam Ltd. shall not exceed 10665 KLD after expansion in Phase - I without CDR and 11089 KLD in Phase – II with CDR.	<p>Total freshwater requirement is as per EC No F.J-11011/60/2009-IA-II(I) dtd 16.4.2024 and same is well within the prescribed limit of 10665 KLD (in Phase I) at IFFCO Kalol.</p> <p>Average daily freshwater consumption for the period April 2025 to September 2025 is 8933 m³/day.</p> <p>Also, as per Charter on “Corporate Responsibility for Environment Protection (CREP), limit of specific water consumption fixed for gas-based fertilizer plants is 8 m³/MT of urea. Specific water consumption for the period from April 2025 to September 2025 is 6.77 m³/MT. Same is also within the prescribed limit.</p> <p>The unit is having valid agreement with M/s Sardar Sarovar Narmada Nigam Ltd (SSNNL) for supply of Narmada Canal Water and is valid up to 22/02/2026.</p>



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Sr. No.	Condition	Compliance Status
iv)	<p>NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the surface water for the project activities, State Pollution Control Board / Pollution Control Committees 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.</p>	<p>CTE No. 72249 dated 29/04/2024 obtained from GPCB for Expansion and Modernisation of Existing Fertiliser Plant for Manufacturing Nano Fertilizer and Nano Micronutrients.</p> <p>CTO / Amendment to CCA No GPCB/CCA-GNR-95(13)/ID-16444/824312 dated 14.10.2024 with validity up to 10.3.2028, obtained from GPCB.</p>
v)	<p>The total wastewater generation after expansion in Phase I and Phase II of the fertilizer complex shall not exceed 1492 KLD and 1560 KLD respectively. Out of which, effluent generation from nano fertilizer plant shall not exceed 35 KLD. Effluent from nano fertilizer plant shall be treated in the ETP of 35 KLD comprising MEE, Stripper and ATFD have a capacity of 25 KLD. Sewage Treatment Plant (Capacity 30 KLD) based on MBR Technology has been installed in the Nano fertilizer plant. Treated effluent from above said ETPs & STP shall be recycled/reused within plant premises and there shall be no discharge of wastewater outside and thus establishing ZLD within the project site.</p>	<p>Total waste water generation is as per EC No F.j11011/60/2009-IA-II(I) dtd 16.4.2024 which is well within the prescribed limit of 1492 KLD (in Phase I) at IFFCO Kalol.</p> <p>Average daily waste water generation for the period April 2025 to September 2025 is 1022 KLD.</p> <p>Treated effluent from above said ETPs & STP has been recycled/reused within plant premises for gardening/ green belt development and there is no discharge of wastewater outside the Plant premises.</p> <p>Certificate as received from Agricultural University for utilisation of treated water for gardening / green belt development within the plant premise is attached herewith as Annexure – I #.</p>



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Sr. No.	Condition	Compliance Status
vi)	<p>The PP shall develop greenbelt of at least 10 m width over an area of 33.43 ha within the project site mainly along the plant periphery, preferably within a year of the grant of EC. Adequate tree saplings selected for the plantation should be of sufficient height, preferably 6-ft shall be planted in greenbelt area. 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.</p>	<p>Existing Green area (including Lawns, Green Belt Area {tree bearing area}) at IFFCO Kalol complex is 47.575 Ha which is 49.65 % of total area of 95.5 Ha covered under green belt. Aerial view showing green belt area in the complex is attached as Annexure - XXIII.</p> <p>Plantation activity in and around the plant is an ongoing activity.</p> <p>32,500 nos. native species of tree saplings have been planted. For the better growth of tree saplings, natural growth stimulators like farm yard manure, vermicompost, jeevamrutam, biochar/charcoal, rice husk have been added in the plantation pits.</p> <p>Some of the photographs (before & after with geo-location date & time) of above-mentioned activities are attached herewith as Annexure - I b i & I b ii.</p> <p>Due to limitation of land availability within the complex for further green belt development, efforts were made for plantation of remaining tree saplings in nearby area of the Gandhinagar District. 13910 nos. native species of tree saplings have been planted in the year 2024 - 25 and 45400 nos. native species of tree saplings have been planted in the year 2025 - 26. Photographs of above-mentioned activities are attached herewith as Annexure - I b iii & I b iv.</p> <p>The cumulative numbers of native species of tree saplings planted is 91810 nos.</p>
vii)	<p>A separate Environmental Management Cell (having qualified person 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. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.</p>	<p>Yes, IFFCO Kalol is having separate Environment & Pollution Control Dept. headed by Jt. GM (EPC) with Chemical Engg / Environmental Science qualified staff. Unit has full-fledged laboratory facilities with set up to carry out the environmental management / monitoring functions. Details of EMC along with details of person engaged and Statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged attached herewith as Annexure - II.</p>



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Sr. No.	Condition	Compliance Status
viii)	<p>The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget already spent under EMP is 5898.1 lakhs (Capital cost) and 1660.5 lakhs per annum (Recurring cost) shall be kept in 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 previous year.</p>	<p>IFFCO - Kalol unit complies with all environmental protection measures and safeguards proposed in EIA Report. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project have been implemented.</p> <p>In order to execute EMP such as Installation of Effluent Treatment System (ETS) and Plantation of tree saplings, separate budget was allocated under Capital budget code 6220101 and same was utilized for execution of project. Also, revenue budget for operation of ETS and AMC for maintenance of trees samplings has been allocated & utilised for the year 2025 – 26.</p> <p>With reference to the status of proposed EMP, details are as under.</p> <ol style="list-style-type: none">1) For the plantation of 40000 nos. of tree saplings, work order No 5605/ 221004240365 dated 24.8.2023 has been issued to M/s Heartyculture Natural Products LLP, Ranga Reddy Dist., Telangana.2) As a part of supply and installation of Effluent Treatment System (ETS) - ZLD Package for treatment of 35 m3/day of effluent at Nano expansion project, Purchase order No 5605/ 221004230623 dated 6.2.2023 was issued to M/s Tevoren Technologies LLP, Ahmedabad. The photographs of ETS installed at site are attached as Annexure – I c.3) In order to execute EMP such as Installation of Effluent Treatment System (ETS) and Plantation of 40000 nos. of tree saplings, separate budget was allocated under Capital budget code 6220101 for utilisation to execute the project. <p>Also, revenue budget for operation of ETS and AMC for maintenance of trees samplings has been allocated and utilised for the year 2025 – 26.</p>
ix)	<p>No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.</p>	<p>Noted & agreed</p>



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Sr. No.	Condition	Compliance Status
x)	The project proponent shall comply with the environment norms for fertiliser Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 1607 (E), dated 29.12.2017 under the provisions of the Environment (Protection) Rules, 1986.	IFFCO - Kalol unit complies with all environmental norms for Fertiliser Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 1607 (E), dated 29.12.2017 under the provisions of the Environment (Protection) Rules, 1986. Report for the period Apr. 2025 – Sept. 2025 submitted to HO, IFFCO for on-word transmission to Ministry of Chemicals and Fertilisers is attached as Annexure – III .
xi)	The project proponent 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.	<p>IFFCO is one of India's biggest cooperative societies which is wholly owned by Indian Cooperatives. IFFCO has been diligent to make its plants energy efficient and continuously works to conserve energy.</p> <p>Implementation of energy and resource conservation measures is an ongoing process at IFFCO - Kalol. The unit has adapted several measures to conserve energy & natural resources. Implementation of various energy saving schemes have resulted in reduction in Natural gas consumption by 47600 SM³/day, raw water consumption by 600 m³/day and CO₂ emission reduction by 97 MT/day.</p> <p>As a part of Energy conservation, Replacement of old M/s KKK Germany make FD fan turbine in BHEL Boiler with new highly efficient turbine of M/s Kirloskar EBARA Make was carried out. The replacement job has been carried out during Annual turnaround April 2025 with the capital expenditure of Rs 5.74 crores. Implementation of this scheme resulted in saving of 2666 Gcal/ year with payback period of 4 years.</p> <p>Apart from above, 383416 KWH of power was generated by Solar energy during the period April 2025 to September 2025 (equivalent to 660 MT of CO₂ emission reduction @ 0.7 kg CO₂/KWh).</p> <p>Moreover, Nanotechnology is the latest development in R&D of IFFCO that has become proven resulting in manufacture nano fertilizers without emitting pollution into the environment and thereby will reduce carbon footprint. Additionally, CO₂ recovery plant will also be installed (in case of lean gas) to collect CO₂ from flue gases to maintain urea production and reduced CO₂ emission. In this way, IFFCO is already working on reducing overall carbon footprint.</p> <p>A study of Tree inventory and Carbon sequestration was carried out at IFFCO Kalol complex during December 2022. Based on the report total CO₂ sequestered by all the trees and shrubs species in the complex was 19846 MT.</p>



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Sr. No.	Condition	Compliance Status
xii)	<p>All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either sent to common incineration site or sent for coprocessing. 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.</p>	<p>Agreed,</p> <p>All the hazardous waste has been managed and disposed as per the HWM Rules 2016.</p> <p>Solid waste management system has been developed within the Plant site and Solid waste is segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016.</p> <p>Canteen and horticulture waste/Wet waste has been converted into compost and used as manure for greenbelt development within the Plant premises. Recycle waste like plastic, plastic, metal, rubber glass etc. sold to authorised recyclers.</p>
xiii)	<p>All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous 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.</p>	<p>IFFCO Kalol is having full-fledged dedicated Fire & Safety Department with qualified and experienced Fire Staff available round the clock to control/mitigate any emergency.</p> <p>No major accidents have been registered in the industry during the period April 2025 to September 2025. IFFCO - Kalol unit has achieved the longest accident-free days of 5200 as on 30.9.2025.</p> <p>Measures adopted to prevent disaster, disaster management planning, risk assessment have been addressed in onsite and offsite Emergency plan of IFFCO - Kalol unit. Relevant page is attached as Annexure - IV.</p> <p>Mutual aid facilities of neighboring industries i.e. ONGC and GAIL are available. Details of Disaster Management & Preventive Measures are mentioned in Annexure – IV A.</p>
xiv)	<p>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.</p>	<p>There are no Volatile organic compounds (VOCs) in the manufacturing process in the complex.</p> <p>For control of fugitive emissions, dust extraction systems with scrubber have been installed in product handling plant. Refer Annexure – V.</p>



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Sr. No.	Condition	Compliance Status
xv)	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.	<p>In compliance to CPCB direction regarding OCEMS, IFFCO Kalol installed PM Analyzer (Make: Durag) at ID Fan stack of Urea prill tower on 1.9.2016 on trial basis. It was observed that trials runs were not successful and same was communicated to the supplier M/s Adage Automation. In response to it, a representative from Adage Automation visited site and removed the same from prill tower ID Fan on 15.2.2018. This was communicated to CPCB vide our E-Mail under the subject. "OCEMS Compliance reporting protocol" Copy of the E-Mail msg and letter sent to CPCB is attached herewith as Annexure - VII.</p> <p>A continuous online monitoring system have been installed for measurement of pH, Ammonical nitrogen and flow and Data logger have been connected with CPCB & GPCB servers. Photographs of the same are attached as Annexure - VIII.</p> <p>Blind has been installed at the downstream valve, over final discharge line of treated water from ETP going outside the plant premises. Flow meters have already been provided on the treated effluent final discharge pipeline of ETP.</p>
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.	<p>The toxic/hazardous raw materials are stored/maintained with bare minimum with respect to quantity and inventory.</p> <p>Details of stock of toxic/hazardous raw materials with quantity are attached as Annexure – IX.</p>
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.	<p>IFFCO Kalol has full-fledged Occupational Health center with 3 full time doctors and paramedical staff available round the clock. Details of the medical facilities at Occupational Health center is attached as Annexure - X.</p> <p>Pre-employment and periodical medical examinations of the employees are carried out. Health data is used as reference for deploying the duties of the workers. Medical checkup report (as per Form 32) of Employee & Contract Workmen are attached as Annexure – X A & B.</p> <p>All required PPE's have been provided to all employees while doing the job. List of PPE's available at various areas in the Plant is attached as Annexure – XI.</p>



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Sr. No.	Condition	Compliance Status
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.	Yes, training on various safety & health aspects of chemicals handling is being imparted to all employees periodically. Details with photographs of training provided to employees is attached as Annexure – XII .
xix)	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.	IFFCO Kalol has an efficient and effective fire prevention and firefighting system to mitigate any emergency during manufacturing process of Ammonia - Urea Complex & Nano fertiliser Plants. Details of the Fire & Safety system available at IFFCO Kalol is attached as Annexure – XIII .
xx)	The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be fire proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.	Not Applicable, as there is no usage of solvent in the manufacturing process in the complex.
xxi)	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.	Rainwater harvesting system has already been installed at township and outside the plant premises near Union Office, details of which is attached as Annexure – XIV . Process effluent / any wastewater is not allowed to mix with storm water.



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Sr. No.	Condition	Compliance Status
xxii)	<p>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.</p>	<ul style="list-style-type: none"> • Specific vessels / tanks have Process & Instrument control valves for controlled use of active ingredients/ chemicals and to minimize the waste. • Urea dust collected from cyclone separators of prill cooling system is dissolved in a tank and is reused in the Urea manufacturing process. • IFFCO Kalol unit is having automatic weighing & filling system in product handling plant to minimize spillage. • IFFCO Kalol Unit is having close feed system for production of Nano fertilisers. • Vent scrubber (V-1207) has been installed to scrub off, off-gases from Ammonia scrubber (V-1203) to recover ammonia, so as to minimize ammonia release to the atmosphere. Gases from the Vent scrubber contain less than 100 mg/Nm³ ammonia as against the permissible limit of 175 mg/Nm³ specified in the consent Order. • Good quality and high-pressure hoses are in use for cleaning purposes and to reduce waste water generation.
xxiii)	<p>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.</p>	<p>IFFCO Kalol Unit is organizing Environment awareness program periodically among the employees and contract workmen working in the plant as well as in nearby villages. Detail report about campaign on ban of Single Use Plastic organised by IFFCO Kalol is attached as Annexure – XV A.</p> <p>Also, as a part of implementation of ban on use of plastic bags, cloth Bag vending Machine has been installed at shopping center of IFFCO Township to enable the employees to use cloth bags instead of plastic bags. Detailed circular and photos of cloth bag vending machine attached as Annexure – XV B.</p> <p>Every year, World Environment Day is celebrated for one week involving employees, contract workmen and their dependent children. Report of world Environment week celebration carried out during 30th May 2025 to 5th June 2025 is attached herewith as Annexure - XV C.</p>



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Sr. No.	Condition	Compliance Status
B. Standard 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.	Noted, no further expansion / modification shall be carried out without prior approval from MOEF & CC.
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.	<p>All relevant clause of under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 are complied and the Complex is having full-fledged Fire & Safety Dept with professionally qualified, experienced & skilled staff.</p> <p>IFFCO Kalol has an efficient and effective fire prevention and firefighting system to mitigate any emergency during manufacturing process of Ammonia & Urea Complex and Nano fertiliser Plants. Details of the Fire & Safety system available at IFFCO Kalol is attached as Annexure – XIII.</p> <p>Measures adopted to prevent disaster, disaster management planning, risk assessment have been addressed in onsite and offsite Emergency plan of IFFCO - Kalol unit. Relevant page is attached as Annexure - IV.</p> <p>Mutual aid facilities of neighboring industries i.e. ONGC and GAIL are available.</p> <p>Details of Disaster Management & Preventive Measures are mentioned in Annexure - IVA.</p>



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Sr. No.	Condition	Compliance Status																								
1.3	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	<p>All light fittings used for lighting purpose are LED type in Plant area, office buildings and residential township. Details of measures implemented for Energy Conservation during in last few years is attached as Annexure - XVI.</p> <p>Apart from above, 383416 KWH of power was generated by Solar energy during the period April 2025 to September 2025 (equivalent to 660 MT of CO₂ emission reduction @ 0.7 kg CO₂/KWh).</p>																								
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).	Yes, the overall noise levels in and around the plant area is well within the standards. Details of noise control measures installed at source of noise generation and Latest noise level monitoring report issued by M/s Stride Green Technologies LLP, Indrad, Kadi, Mehsana (NABL accredited Lab) is attached as Annexure – XVII & XVII A .																								
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.	<p>As committed in EIA Report, CER fund has been allocated for implementation of various CER activities under IRDP. Details for the last four and half years are as under.</p> <table border="1" data-bbox="808 1304 1510 1583"> <thead> <tr> <th>Sr. No.</th> <th>Financial Year</th> <th>Allocated Fund Rs. Lakhs</th> <th>Spent amount Rs. Lakhs</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>2021 - 22</td> <td>24</td> <td>24</td> </tr> <tr> <td>02</td> <td>2022 - 23</td> <td>20</td> <td>27 *</td> </tr> <tr> <td>03</td> <td>2023 - 24</td> <td>10</td> <td>40.22 *</td> </tr> <tr> <td>04</td> <td>2024 - 25</td> <td>20</td> <td>20.10</td> </tr> <tr> <td>05</td> <td>Apr.25 – Sept.25</td> <td>--</td> <td>13.60</td> </tr> </tbody> </table> <p>Ref. Annexure – XVIII and Table No 1.1 of Annex XVIII). * Due to additional requirement</p>	Sr. No.	Financial Year	Allocated Fund Rs. Lakhs	Spent amount Rs. Lakhs	01	2021 - 22	24	24	02	2022 - 23	20	27 *	03	2023 - 24	10	40.22 *	04	2024 - 25	20	20.10	05	Apr.25 – Sept.25	--	13.60
Sr. No.	Financial Year	Allocated Fund Rs. Lakhs	Spent amount Rs. Lakhs																							
01	2021 - 22	24	24																							
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IFFCO Kalol Unit

Sr. No.	Condition	Compliance Status
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.	Every year IFFCO Kalol earmark sufficient funds towards capital cost and recurring cost to implement environment management and to operate existing pollution control measures. These funds are not 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.	There were no suggestions / representations received from the concerned Panchayat, Zilla Parishad/ Municipal Corporation, Urban local Body and the local NGO while processing the proposal. However, one copy each of Environment clearance letter has been given to Sarpanch of nearby villages. Copies of receipt of Acknowledgement are attached as Annexure – XIX A.
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.	Noted, IFFCO Kalol Unit submits compliance report of EC conditions to Regional Office of MOEF & CC, Zonal office of CPCB & GPCB for every six months. Copy of Environmental Clearance and six-monthly compliance status report have been posted on the website of IFFCO.
1.9	The environmental statement for each financial year ending 31 st 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.	Yes, every year the environmental statement for each financial year ending 31 st March in Form - V is submitted to GPCB. Copy of Environmental statement (Form V) for Year 2024 - 25 submitted to GPCB is attached as Annexure - XX. Same will be put on the IFFCO website along with the status of compliance of environmental clearance conditions. Soft copy of same is sent to Regional Office of MoEF&CC, Gandhinagar by email.



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Sr. No.	Condition	Compliance Status
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.	IFFCO had advertised information related to Environment clearance in two local newspapers one in Gujarati and another in English. Copies of advertisement published in Newspapers, such as Divya Bhaskar and Indian Express are attached as Annexure – XXI A .
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.	CTE No. 72249 dated 29/04/2024 obtained from GPCB for Expansion and Modernisation of Existing Fertilizer Plant for Manufacturing Nano Fertilizer and Nano Micronutrients. CTO / Amendment to CCA No GPCB/CCA-GNR-95(13)/ID-16444/824312 dated 14.10.2024 with validity up to 10.3.2028, obtained from GPCB.
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



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IFFCO Kalol Unit

Subject: Expansion of Existing Fertilizer Plant for Manufacturing Nano Fertilizer and Nano Micronutrients at IFFCO Kalol Unit

(Reference: Ministry letter No. F. No. J-11011/60/2009-IA-II(I) dtd. 07.03.2023)

Environmental clearance letter is attached as **Annexure - IB**.

TABLE: 1

Sr. No.	Condition	Compliance Status
A. Specific Conditions		
i)	<p>The PP shall develop Greenbelt over an area of at least, 16165.45 m² by planting 40,000 (1st year) number of trees within a period of one year of grant of EC and 15,000 (2nd year) (2024). The saplings selected for the plantation should be of sufficient height, preferably 6 ft (about 2m).</p> <p>The budget earmarked for the plantation shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo- location date & time), details of the 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 the previous year.</p>	<p>As a part of increasing tree diversity in the IFFCO Kalol complex premises, Work order No 5605/ 221004240365 dtd 24.8.2023 was issued to M/s Heartyculture Natural Products LLP, Ranga Reddy Dist, Telangana for plantation of 40000 numbers of tree saplings and subsequent annual maintenance of the same.</p> <p>Plantation activity in and around the plant is an ongoing activity.</p> <p>32,500 nos. native species of tree saplings have been planted. For the better growth of tree saplings, natural growth stimulators like farm yard manure, vermicompost, jeevamrutam, biochar/charcoal, rice husk have been added in the plantation pits.</p> <p>Some of the photographs (before & after with geo- location date & time) of above-mentioned activities are attached herewith as Annexure – I b i & I b ii.</p> <p>Due to limitation of land availability within the complex for further green belt development, efforts were made for plantation of remaining tree saplings in nearby area of the Gandhinagar District. 13910 nos. native species of tree saplings have been planted in the year 2024 - 25 and 45400 nos. native species of tree saplings have been planted in the year 2025 - 26. Photographs of above-mentioned activities are attached herewith as Annexure – I b iii & I b iv.</p> <p>The cumulative numbers of native species of tree saplings planted is 91810 nos.</p>



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Sr. No.	Condition	Compliance Status
ii)	<p>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 Director - environment officials, 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.</p>	<p>Yes, IFFCO Kalol is having separate Environment & Pollution Control Dept. headed by Jt. GM (EPC) with Chemical Engg / Environmental Science qualified staff. Unit has full-fledged laboratory facilities with set up to carry out the environmental management / monitoring functions.</p>
iii)	<p>The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP [Rs. 932.9 lakhs (Capital cost) and Rs. 116 lakhs (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.</p>	<p>IFFCO-Kalol unit complies with all environmental protection measures and safeguards proposed in EIA Report. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project have been implemented.</p> <p>With reference to the status of proposed EMP, details are as under;</p> <ol style="list-style-type: none">1) For the plantation of 40000 nos. of tree saplings, work order No 5605/ 221004240365 dtd 24.8.2023 was issued to M/s Heartyculture Natural Products LLP, Ranga Reddy Dist.: Telangana.2) As a part of supply and installation of Effluent Treatment System (ETS) - ZLD Package for treatment of 35 m³/day of effluent at Nano expansion project, Purchase order No 5605/ 221004230623 dtd 6.2.2023 was issued to M/s Tevoren Technologies LLP, Ahmedabad.3) In order to execute EMP such as Installation of Effluent Treatment System (ETS) and Plantation of 40000 nos. of tree saplings, separate budget has been allocated under Capital budget code 6220101 and same has been utilized for execution of project. <p>Also, revenue budget for operation of ETS and AMC for maintenance of trees samplings was allocated and utilised for the year 2025 – 26.</p>



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IFFCO Kalol Unit

Sr. No.	Condition	Compliance Status
iv)	<p>The total freshwater requirement after expansion will be 10190 KLD (in Phase-I) and 10614 KLD (in Phase-II). Fresh water will be met by Sardar Sarovar Narmada Nigam Ltd. (SSNNL). The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining prior agreement from the Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.</p>	<p>Total freshwater requirement is as per EC No F.j11011/60/2009-IA-II(I) dtd 16.4.2024 which is well within the prescribed limit of 10665 KLD (in Phase I) at IFFCO Kalol.</p> <p>Average daily freshwater consumption for the period April 2025 to September 2025 is 8933 m³/day.</p> <p>Also, as per Charter on “Corporate Responsibility for Environment Protection (CREP), limit of specific water consumption fixed for gas-based fertilizer plants is 8 m³/MT of urea. Specific water consumption for the period from April 2025 to September 2025 is 6.77 m³/MT. Same is also within the prescribed limit.</p> <p>The unit is having valid agreement with M/s Sardar Sarovar Narmada Nigam Ltd (SSNNL) for supply of Narmada Canal Water and is valid up to 22/02/2026.</p>
v)	<p>No banned chemicals shall be manufactured by the PP. No banned raw materials shall be used in the unit. The PP shall adhere to the notifications/guidelines of the Government in this regard.</p>	<p>Noted & agreed</p>



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IFFCO Kalol Unit

Sr. No.	Condition	Compliance Status
vi)	<p>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.</p>	<p>IFFCO is one of India's biggest cooperative societies which is wholly owned by Indian Cooperatives. IFFCO has been diligent to make its plants energy efficient and continuously works to conserve energy.</p> <p>Implementation of energy and resource conservation measures is an ongoing process at IFFCO-Kalol. The unit has adapted several measures to conserve energy & natural resources. Implementation of various energy saving schemes have resulted in reduction in Natural gas consumption by 47600 SM³/day, raw water consumption by 600 m³/day and CO₂ emission reduction by 97 MT/day.</p> <p>As a part of Energy conservation, Replacement of old M/s KKK Germany make FD fan turbine in BHEL Boiler with new highly efficient turbine of M/s Kirloskar EBARA Make was carried out. The replacement job has been carried out during Annual turnaround April 2025 with the capital expenditure of Rs 5.74 crores. Implementation of this scheme resulted in saving of 2666 Gcal/ year with payback period of 4 years.</p> <p>Apart from above, 383416 KWH of power was generated by Solar energy during the period April 2025 to September 2025 (equivalent to 660 MT of CO₂ emission reduction @ 0.7 kg CO₂/KWh).</p> <p>Moreover, Nanotechnology is the latest development in R&D of IFFCO that has become proven resulting in manufacture nano fertilizers without emitting pollution into the environment and thereby will reduce carbon footprint. Additionally, CO₂ recovery plant will also be installed (in case of lean gas) to collect CO₂ from flue gases to maintain urea production and reduced CO₂ emission. In this way, IFFCO is already working on reducing overall carbon footprint.</p> <p>A study of Tree inventory and Carbon sequestration was carried out at IFFCO Kalol complex during December 2022. Based on the report total CO₂ sequestered by all the trees and shrubs species in the complex was 19846 MT.</p>



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IFFCO Kalol Unit

Sr. No.	Condition	Compliance Status
vii)	The project proponent shall comply with the environment norms for Fertilizer as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 1607(E), dated 29.12.2017 under the provisions of the Environment (Protection) Rules, 1986.	IFFCO - Kalol unit complies with all environmental protection measures and safeguards proposed in EIA Report. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project have been implemented.
viii)	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.	<p>IFFCO Kalol is having full-fledged dedicated Fire & Safety Department with qualified and experienced Fire Staff available round the clock to control/mitigate any emergency.</p> <p>No major accidents have been registered in the industry during the said period. IFFCO - Kalol unit has achieved the longest accident-free days of 5200 as on 30.09.2025.</p> <p>Measures adopted to prevent disaster, disaster management planning, risk assessment have been addressed in onsite and offsite Emergency plan of IFFCO - Kalol unit. Relevant page is attached as Annexure - IV.</p> <p>Mutual aid facilities of neighboring industries i.e. ONGC and GAIL are available, Kadi. Details of Disaster Management & Preventive Measures are mentioned in Annexure - IV A.</p>
ix)	The volatile organic compounds (VOCs)/ Fugitive emissions shall be controlled at 99.97 % with effective chillers/modem technology. Regular monitoring of VOCs shall be carried out.	<p>There are no Volatile organic compounds (VOCs) in the manufacturing process in the complex.</p> <p>For control of fugitive emissions, dust extraction systems with scrubber have been installed in product handling plant. Refer Annexure - V.</p>
x)	The PP shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.	Yes, IFFCO Kalol Unit has implemented major pollution abatement measures for recycling and reusing of treated water and optimum utilization of Raw/ Fresh water. Details are mentioned in Annexure - VI.
xi)	As committed by the PP, Zero Liquid Discharge shall be ensured. The domestic wastewater shall be partially treated in the existing ETP and flushing wastewater shall be discharged to soak pits. ETP plant shall be installed total capacity of 35 KLD. Out of 35 KLD, MEE, Stripper and AFFD will have capacity of 25 KLD. Treated water shall be reused for horticulture/ gardening/ green belt development purposes.	There is no discharge of treated water outside the plant premises. The domestic wastewater is partially treated in the existing ETP, and flushing wastewater is discharged to soak pits. ETP plant of 35 KLD capacity has already been installed at the Nano Fertiliser unit.



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IFFCO Kalol Unit

Sr. No.	Condition	Compliance Status
xii)	<p>Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.</p>	<p>In compliance to CPCB direction regarding OCEMS, IFFCO Kalol installed PM Analyzer (Make: Durag) at ID Fan stack of Urea prill tower on 1.9.2016 on trial basis. It was observed that trials runs were not successful and same was communicated to the supplier M/s Adage Automation. In response to it, a representative from Adage Automation visited site and removed the same from prill tower ID Fan on 15.2.2018. This was communicated to CPCB vide our E-Mail under the subject. "OCEMS Compliance reporting protocol" Copy of the E-Mail msg and letter sent to CPCB is attached herewith as Annexure - VII.</p> <p>A continuous online monitoring system have been installed for measurement of pH, Ammonical nitrogen and flow and Data logger have been connected with CPCB & GPCB servers. Photographs of the same are attached as Annexure - VIII.</p> <p>Blind has been installed at the downstream valve, over final discharge line of treated water from ETP going outside the plant premises. Flow meters have already been provided on the treated effluent final discharge pipeline of ETP.</p>
xiii)	<p>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.</p>	<p>The toxic/hazardous raw materials are stored/maintained with bare minimum with respect to quantity and inventory.</p> <p>Details of stock of toxic/hazardous raw materials with quantity attached as Annexure – IX.</p>



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IFFCO Kalol Unit

Sr. No.	Condition	Compliance Status
xiv)	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.	<p>IFFCO Kalol has full-fledged Occupational Health center with 3 full time doctors and paramedical staff available round the clock. Details of the medical facilities at Occupational Health center is attached as Annexure - X.</p> <p>Pre-employment and periodical medical examinations of the employees are carried out. Health data is used as reference for deploying the duties of the workers. Medical checkup report (as per Form 32) of Employee & Contract Workmen are attached as Annexure – X A & B.</p> <p>All required PPE's have been provided to all employees while doing the job. List of PPE's available at various areas in the Plant is attached as Annexure – XI.</p>
xv)	Proper Ventilation with adequate air change cycle shall be made for healthy working environment for the workers. Work Zone monitoring should be done for VOC.	<p>There are no Volatile organic compounds (VOCs) in the manufacturing process in the complex.</p> <p>For control of fugitive emissions, dust extraction systems with scrubber have been installed in product handling plants. Refer Annexure – V.</p>
xvi)	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.	<p>Yes, training on various safety & health aspects of chemicals handling is being imparted to all employees periodically.</p> <p>Details with photographs of training provided to employees is attached as Annexure – XII.</p>
xvii)	The unit shall make the arrangement for the protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.	<p>IFFCO Kalol has an efficient and effective fire prevention and firefighting system to mitigate any emergency during manufacturing process of Ammonia - Urea Complex & Nano fertiliser Plants. Details of the Fire & Safety system available at IFFCO Kalol is attached as Annexure – XIII.</p>
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.	<p>Rainwater harvesting system has already been installed at township and outside the plant premises near Union Office, details of which is attached as Annexure – XIV.</p> <p>Process effluent / any wastewater is not allowed to mix with storm water.</p>



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IFFCO Kalol Unit

Sr. No.	Condition	Compliance Status																								
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.	<ul style="list-style-type: none"> • Specific vessels / tanks have Process & Instrument control valves for controlled use of active ingredients/ chemicals and to minimize the waste. • Urea dust collected from cyclone separators of prill cooling system is dissolved in a tank and is reused in the Urea manufacturing process. • IFFCO Kalol unit is having automatic weighing & filling system in product handling plant to minimize spillage. • IFFCO Kalol Unit is having close feed system for production of Nano fertilisers. • Vent scrubber (V-1207) has been installed to scrub off, off-gases from Ammonia scrubber (V-1203) to recover ammonia, so as to minimize ammonia release to the atmosphere. Gases from the Vent scrubber contain less than 100 mg/Nm³ ammonia as against the permissible limit of 175 mg/Nm³ specified in the consent Order. • Good quality and high-pressure hoses are in use for cleaning purposes and to reduce waste water generation. 																								
xxi)	The Plastic Waste Management (Amendment) Rules, 2022 shall be duly complied w.r.t Extended Producer Responsibility (EPR) target as a brand owner.	Registration certificates of IFFCO as a brand owner for Ammonia - Urea complex and EPR Annual Report for the year 2024 – 2025 are attached as Annexure – XV i & ii .																								
xxii)	The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.	<p>As committed in EIA Report, CER fund has been allocated for implementation of various CER activities under IRDP. Details for the last four and half years are as under.</p> <table border="1" data-bbox="784 1430 1487 1707"> <thead> <tr> <th>Sr. No.</th> <th>Financial Year</th> <th>Allocated Fund Rs. Lakhs</th> <th>Spent amount Rs. Lakhs</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>2021 - 22</td> <td>24</td> <td>24</td> </tr> <tr> <td>02</td> <td>2022 - 23</td> <td>20</td> <td>27 *</td> </tr> <tr> <td>03</td> <td>2023 - 24</td> <td>10</td> <td>40.22 *</td> </tr> <tr> <td>04</td> <td>2024 - 25</td> <td>20</td> <td>20.10</td> </tr> <tr> <td>05</td> <td>Apr.25 – Sept.25</td> <td>--</td> <td>13.60</td> </tr> </tbody> </table> <p>Ref. Annexure – XVIII and Table No 1.1 of Annex XVIII). * Due to additional requirement.</p>	Sr. No.	Financial Year	Allocated Fund Rs. Lakhs	Spent amount Rs. Lakhs	01	2021 - 22	24	24	02	2022 - 23	20	27 *	03	2023 - 24	10	40.22 *	04	2024 - 25	20	20.10	05	Apr.25 – Sept.25	--	13.60
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IFFCO Kalol Unit

Sr. No.	Condition	Compliance Status
General Conditions		
i)	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.	Noted, no further expansion / modification shall be carried out without prior approval from MOEF & CC.
ii)	The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.	<p>All relevant clause of under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 are complied and the Complex is having full-fledged Fire & Safety Dept with professionally qualified, experienced & skilled staff.</p> <p>IFFCO Kalol has an efficient and effective fire prevention and firefighting system to mitigate any emergency during manufacturing process of Ammonia & Urea Complex and Nano fertiliser Plants. Details of the Fire & Safety system available at IFFCO Kalol is attached as Annexure – XIII.</p> <p>Measures adopted to prevent disaster, disaster management planning, risk assessment have been addressed in onsite and offsite Emergency plan of IFFCO - Kalol unit. Relevant page is attached as Annexure - III.</p> <p>Mutual aid facilities of neighboring industries i.e. ONGC and GAIL are available.</p> <p>Details of Disaster Management & Preventive Measures are mentioned in Annexure - IV.</p>
iii)	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	<p>All light fittings used for lighting purpose are LED type in Plant area, office buildings and residential township. Details of measures implemented for Energy Conservation in last few years is attached as Annexure - XVI.</p> <p>Apart from above, 383416 KWH of power was generated by Solar energy during the period April 2025 to September 2025 (equivalent to 660 MT of CO₂ emission reduction @ 0.7 kg CO₂/KWh).</p>



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Sr. No.	Condition	Compliance Status																								
iv)	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 (daytime) and 70 dBA (night time).	Yes, the overall noise levels in and around the plant area is well within the standards. Details of noise control measures installed at source of noise generation and Latest noise level monitoring report issued by M/s Stride Green Technologies LLP, Indrad, Kadi, Mehsana (NABL accredited Lab) is attached as Annexure – XVII & XVII A.																								
v)	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco- developmental measures including community welfare measures in the project area for the overall improvement of the environment.	<p>As committed in EIA Report, CER fund has been allocated for implementation of various CER activities under IRDP. Details for the last four and half years are as under.</p> <table border="1" data-bbox="797 825 1500 1100"> <thead> <tr> <th>Sr. No.</th> <th>Financial Year</th> <th>Allocated Fund Rs. Lakhs</th> <th>Spent amount Rs. Lakhs</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>2021 - 22</td> <td>24</td> <td>24</td> </tr> <tr> <td>02</td> <td>2022 - 23</td> <td>20</td> <td>27 *</td> </tr> <tr> <td>03</td> <td>2023 - 24</td> <td>10</td> <td>40.22 *</td> </tr> <tr> <td>04</td> <td>2024 - 25</td> <td>20</td> <td>20.10</td> </tr> <tr> <td>05</td> <td>Apr.25 – Sept.25</td> <td>--</td> <td>13.60</td> </tr> </tbody> </table> <p>Ref. Annexure – XVIII and Table No 1.1 of Annex XVIII). * Due to additional requirement.</p>	Sr. No.	Financial Year	Allocated Fund Rs. Lakhs	Spent amount Rs. Lakhs	01	2021 - 22	24	24	02	2022 - 23	20	27 *	03	2023 - 24	10	40.22 *	04	2024 - 25	20	20.10	05	Apr.25 – Sept.25	--	13.60
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IFFCO Kalol Unit

Sr. No.	Condition	Compliance Status
viii)	The project proponent shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional 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.	Noted, IFFCO Kalol Unit submits compliance report of EC conditions to Regional Office of MOEF & CC, Zonal office of CPCB & GPCB once in six months. Copy of Environmental Clearance and six-monthly compliance status report have been posted on the website of IFFCO.
ix)	The environmental statement for each financial year ending 31 st 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.	Yes, every year the environmental statement for each financial year ending 31 st March in Form - V is submitted to GPCB. Copy of Environmental statement (Form V) for Year 2024 - 25 submitted to GPCB is attached as Annexure - XX . Same is uploaded on the IFFCO website along with the status of compliance of environmental clearance conditions. Soft copy of the same is sent to Regional Office of MoEF&CC, Gandhinagar by email.
x)	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at 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.	IFFCO had advertised information related to Environment clearance in two local newspapers one in Gujarati and another in English. Copies of advertisement published in Newspapers, such as Divya Bhaskar and Times of India are attached as Annexure – XXI B .
xi)	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.	CTE No. 61798 dtd 13/03/2023 obtained from GPCB for Expansion of Existing Fertilizer Plant for Manufacturing Nano Fertilizer and Nano Micronutrients. CTO / Amendment to CCA No GPCB/CCA-GNR-95(13)/ID-16444/824312 dated 14.10.2024 with validity up to 10.3.2028, obtained from GPCB.
xii)	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	Noted



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IFFCO Kalol Unit
Subject: Expansion of Fertiliser Plant by installation of New Nano Urea Plant
at IFFCO Kalol Unit

(Reference: Ministry letter No. F. No. J-11011/60/2009-IA-II(I) dtd. 24th August, 2021)

Environmental clearance letter is attached as **Annexure I C.**

TABLE: 2

Sr. No.	Conditions	Compliance Status
Specific Conditions		
i)	All the specific and general conditions stipulated in the environmental clearance dated 1 st February, 2021 shall be complied in letter and spirit.	All the specific and general conditions stipulated in the environmental clearance dated 1 st February 2021 have been complied and updated the compliance status report.
ii)	The project proponent 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 IRO, MoEFCC in this regard.	<p>IFFCO is one of India's biggest cooperative societies which is wholly owned by Indian Cooperatives. IFFCO has been diligent to make its plants energy efficient and continuously works to conserve energy. Implementation of energy and resource conservation measures is an ongoing process at IFFCO-Kalol. The unit has adapted several measures to conserve energy & natural resources. Implementation of various energy saving schemes have resulted in reduction in Natural gas consumption by 47600 SM³/day, raw water consumption by 600 m³/day and CO₂ emission reduction by 97 MT/day.</p> <p>As a part of Energy conservation, Replacement of old M/s KKK Germany make FD fan turbine in BHEL Boiler with new highly efficient turbine of M/s Kirloskar EBARA Make was carried out. The replacement job has been carried out during Annual turnaround April 2025 with the capital expenditure of Rs 5.74 crores. Implementation of this scheme resulted in saving of 2666 Gcal/ year with payback period of 4 years.</p> <p>Apart from above, 383416 KWH of power was generated by Solar energy during the period April 2025 to September 2025 (equivalent to 660 MT of CO₂ emission reduction @ 0.7 kg CO₂/KWh).</p> <p>Moreover, Nanotechnology is the latest development in R&D of IFFCO that has become proven resulting in manufacture nano fertilizers without emitting pollution into the environment and thereby will reduce carbon footprint. Additionally, CO₂ recovery plant will also be installed (in case of lean gas) to collect CO₂ from flue gases to maintain urea production and reduced CO₂ emission. In this way, IFFCO is already working on reducing overall carbon footprint.</p> <p>A study of Tree inventory and Carbon sequestration was carried out at IFFCO Kalol complex during December 2022. Based on the report total CO₂ sequestered by all the trees and shrubs species in the complex was 19846 MT.</p>



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IFFCO Kalol Unit

Sr. No.	Conditions	Compliance Status
iii)	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 addendum to the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.	IFFCO-Kalol unit complies with all environmental protection measures and safeguards proposed in EIA Report. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project have been implemented.
iv)	Total fresh water requirement shall not exceed 10069 KLD (in Phase I) and 10493 KLD (in Phase II). Prior permission in this regard shall be obtained from the concerned regulatory authority.	<p>Total freshwater requirement is as per EC No F.j11011/60/2009-IA-II(I) dated 16.4.2024 which is well within the prescribed limit of 10665 KLD (in Phase I) at IFFCO Kalol.</p> <p>Average daily freshwater consumption for the period April 2025 to September 2025 is 8933 m³/day.</p> <p>Also, as per Charter on "Corporate Responsibility for Environment Protection (CREP), limit of specific water consumption fixed for gas-based fertilizer plants is 8 m³/ MT of urea. Specific water consumption for the period from April 2025 to September 2025 is 6.77 m³/MT. Same is also within the prescribed limit.</p> <p>The unit is having valid agreement with M/s Sardar Sarovar Narmada Nigam Ltd (SSNNL) for supply of Narmada Canal Water and is valid up to 22/02/2026.</p>
v)	No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.	Noted and agreed
vi)	As proposed, at least Rs. 36.5 lakhs shall be earmarked for conservation plan and shall be implemented in coordination with State Forest & Wildlife Department / Local Village Administration.	Rs. 36.5 lakhs have been earmarked for wildlife conservation plan After review by the Range Forest Officer, Kadi Wildlife Range, Revised wildlife conservation plan incorporating GPS location has already been submitted for approval of the plan.



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IFFCO Kalol Unit

(Reference: Ministry letter No. F. No. J-11011/60/2009-IA-II(I) dated 1st February, 2021)

Environmental clearance letter is attached as **Annexure I D**.

TABLE: 3

Sr. No.	Conditions	Compliance Status
Specific Conditions		
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	IFFCO - Kalol unit complies with all environmental protection measures and safeguards proposed in EIA Report. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project have been implemented.
ii)	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development.	There is no discharge of treated water outside the plant premises.
iii)	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.	<p>In compliance to CBCB direction regarding OCEMS, IFFCO Kalol installed PM Analyzer (Make: Durag) at ID Fan stack of Urea prill tower on 1.9.2016 on trial basis. It was observed that trial runs were not successful and same was communicated to the supplier M/s Adage Automation. In response to it, a representative from Adage Automation visited site and removed the same from prill tower ID Fan on 15.2.2018. This was communicated to CPCB vide our E-Mail under the subject. "OCEMS Compliance reporting protocol" Copy of the E-Mail msg and letter sent to CPCB is attached as Annexure - VII.</p> <p>Continuous online monitoring system have been installed for measurement of pH, Ammonical nitrogen & flow and Data logger have been connected with CPCB & GPCB servers. Photographs of the same are attached as Annexure - VIII.</p> <p>Blind has been installed at the downstream valve, over final discharge line of treated water from ETP going outside the plant premises. Flow meters have already been provided on treated effluent final discharge pipeline of ETP.</p>



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IFFCO Kalol Unit

Sr. No.	Conditions	Compliance Status
iv)	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 toxic/hazardous raw materials are stored/ maintained with bare minimum with respect to quantity and inventory. Details of stock of toxic/hazardous raw materials with quantity attached as Annexure – IX.
v)	Occupational health center for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.	IFFCO Kalol has full-fledged Occupational Health center with 3 full time doctors and paramedical staff available round the clock. Details of the medical facilities at Occupational Health center is attached as Annexure - X. Pre-employment and periodical medical examinations of the employees are carried out. Health data is used as reference for deploying the duties of the workers. Medical checkup report (as per Form 32) of Employee & Contract Workmen are attached as Annexure – X A & B. All required PPE's have been provided to all employees while doing the job. List of PPE's available at various areas in the Plant is attached as Annexure – XI.
vi)	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.	Training on various safety and health aspects of chemicals handling has been regularly imparted to employees and contract workmen. Practical training on firefighting and emergency handling is also conducted periodically. Refresher Fire & Safety training is being imparted to all employees and contract workmen every year. photographs of Safety and visual reality training provided to employees is attached herewith as Annexure – XII.
vii)	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.	IFFCO Kalol is having full-fledged Fire & Safety Dept. with professionally qualified, experienced & skilled staff. IFFCO Kalol has efficient and effective fire prevention and firefighting system to mitigate any emergency during manufacturing process of Ammonia - Urea Complex & Nano fertiliser Plants. Details of the Fire & Safety system available at IFFCO Kalol is attached as Annexure – XIII.



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IFFCO Kalol Unit

Sr. No.	Conditions	Compliance Status
viii)	Safety and risk assessment studies shall be conducted and action plan and mitigation measures shall be properly implemented.	Safety and risk assessment studies of IFFCO Kalol have been conducted during Dec 2018 to Jan 2019 by M/s iFluid Engineering, Chennai. Observation and recommendation/mitigation measures have been implemented. Safety audit is being carried out as per the Statutory requirements. Last safety audit was conducted by Safety Consultancy Services, Ahmedabad during 6 th to 8 th November 2023.
ix)	Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.	Not Applicable, as there is no usage of solvent in the manufacturing process in the complex.
x)	Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.99% with effective chillers/modern technology.	There are no Volatile organic compounds (VOCs) in the manufacturing process in the complex. For control of fugitive emissions, dust extraction systems with scrubber have been installed in product handling plant. Refer Annexure – V .
xi)	Total fresh water requirement shall not exceed 10371 cum/day proposed to be met from existing water supply from Narmada canal to the IFFCO Kalol unit. Necessary permission in this regard shall be obtained from the concerned regulatory authority, and renewed from time to time.	Total freshwater requirement is as per EC No F.j11011/60/2009-IA-II(I) dtd 16.4.2024 which is well within the prescribed limit of 10665 KLD (in Phase I) at IFFCO Kalol. Average daily freshwater consumption for the period April 2025 to September 2025 is 8933 m ³ /day. The unit is having valid agreement with M/s Sardar Sarovar Narmada Nigam Ltd (SSNNL) for supply of Narmada Canal Water and is valid up to 22/02/2026. Copy of agreement is attached herewith as Annexure - XXII .



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IFFCO Kalol Unit

Sr. No.	Conditions	Compliance Status
xii)	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.	Rainwater harvesting system has already been installed at township and outside the plant premises near Union Office, details of which is attached as Annexure – XIV . Process effluent / any wastewater is not allowed to mix with storm water.
xiii)	The company shall undertake waste minimization measures as below	
	(a) metering and control of quantities of active ingredients to minimize waste;	Specific vessels / tanks are having Process & Instrument control valves for controlled use of active ingredients/ chemicals and to minimize the waste.
	(b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.	Urea dust collected from cyclone separators of prill cooling system is dissolved and reused in the Urea manufacturing process.
	(c) Use of automated filling to minimize spillage.	IFFCO Kalol unit is having automatic weighing & filling system in product handling plant to minimize spillage.
	(d) Use of Close Feed system into batch reactors.	IFFCO Kalol Unit is having close feed system for production of Nano fertilizers and Diesel Exhaust Fluid (DEF) in urea plant.
	(e) Venting equipment through vapor recovery system.	Vent scrubber (V-1207) has been installed to scrub off off-gases from Ammonia scrubber (V-1203) to recover ammonia, so as to minimize ammonia release to the atmosphere. Gases from the Vent scrubber contain less than 100 mg/Nm ³ ammonia as against the permissible limit of 175 mg/Nm ³ specified in the consent Order.
	(f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.	Good quality and high-pressure hoses are in use for cleaning purpose and to reduce wastewater generation.



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Sr. No.	Conditions	Compliance Status
xiv)	<p>The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.</p>	<p>Existing Green area (including Lawns, Green Belt Area {tree bearing area}) at IFFCO Kalol complex is 47.4266 Ha which is 49.65 % of total area of 95.5 Ha covered under green belt. Photographs showing green area in the complex are attached as Annexure - XXIII.</p> <p>Plantation activity in and around the plant is an ongoing activity.</p> <p>Work order No 5605/ 221004240365 dtd 24.8.2023 has been issued to M/s Heartyculture Natural Products LLP, Ranga Reddy Dist, Telangana for plantation and annual maintenance of tree saplings.</p>
xv)	<p>The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.</p>	<p>As committed in EIA Report, CER fund has been allocated for implementation of various CER activities under IRDP in upcoming 4 years. Details of amount spent for last four years is mentioned in Table No 1.1 of Annex XVIII (Ref; point no. xxii on page 9 of 23 of this compliance report).</p> <p>Allocated budget for EMP regarding implementation of Water pollution control scheme and Green belt development have been utilized (Ref; point no. xiv on page 19 of 23 of this compliance report).</p>



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IFFCO Kalol Unit

Sr. No.	Conditions	Compliance Status
xvi)	A separate Environmental Management Cell (having qualified person 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.	Yes, IFFCO Kalol is having separate Environment & Pollution Control Dept. headed by Jt. GM (EPC) with Chemical Engg / Environmental Science qualified staff. Unit is having full-fledged laboratory facilities with set up to carry out the environmental management / monitoring functions. Details are attached as Annexure - II .
General Conditions		
(i)	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 to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Noted, no further expansion / modification shall be carried out without prior approval from MOEF & CC.
(ii)	The energy source for lighting purpose shall be preferably LED based or advance having preference in energy conservation and environment betterment.	All light fittings used for lighting purpose are LED type in Plant area, office buildings and residential township. Apart from above, 383416 KWH of power was generated by Solar energy during the period April 2025 to September 2025 (equivalent to 660 MT of CO ₂ emission reduction @ 0.7 kg CO ₂ /KWh).
(iii)	The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	Three ambient air quality monitoring stations have been set up in the complex considering upwind, downwind direction and maximum ground level concentrations. Ambient air quality monitoring data is submitted on a monthly basis to GPCB, Gandhinagar. All parameters are within limit. Ambient Air Quality monitoring was carried out by M/s Stride Green Technologies LLP, Indrad, Kadi, Mehsana (NABL accredited Lab) in the month of September, 2025. Copy of reports of which are attached as Annexure XVII - B .



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IFFCO Kalol Unit

Sr. No.	Conditions	Compliance Status
(iv)	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.	Accepted and is followed.
(v)	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 Environment (Protection) Act 1986 Rules 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Yes, overall noise levels in and around the plant area is well within the standards. Details of noise control measures installed at source of noise generation and Latest noise level monitoring report was carried out by M/s Stride Green Technologies LLP, Indrad, Kadi, Mehsana (NABL accredited Lab) is attached as Annexure – XVII & XVII A.
(vi)	The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and to utilize the same for process requirements.	Rainwater harvesting system has already been installed at township and outside the plant premises near Union Office (Ref: Annexure - XIV) to collect the rainwater/storm water and to recharge the ground water.
(vii)	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre- employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Yes, training on various safety & health aspects of chemicals handling is being imparted to all employees periodically. Details with photographs of training provided to employees is attached as Annexure – XII. Pre-employment and routine periodical medical examinations (Physical examination, Urine Routine examination, Hematology, LFT, Blood Sugar, chest x rays, Audiometry, Spirometry, Vision testing, ECG etc.) of employee and contract workmen is undertaken on regular basis to analyze the health status. Records of the same have been maintained. Sample copies of medical check-up reports of employee & Contract Workmen are attached as Annexure - X A & B.



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IFFCO Kalol Unit

Sr. No.	Conditions	Compliance Status																								
(viii)	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.	<p>As committed in EIA Report, CER fund has been allocated for implementation of various CER activities under IRDP. Details for the last four and half years are as under.</p> <table border="1" data-bbox="789 411 1490 688"> <thead> <tr> <th>Sr. No.</th> <th>Financial Year</th> <th>Allocated Fund Rs. Lakhs</th> <th>Spent amount Rs. Lakhs</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>2021 - 22</td> <td>24</td> <td>24</td> </tr> <tr> <td>02</td> <td>2022 - 23</td> <td>20</td> <td>27 *</td> </tr> <tr> <td>03</td> <td>2023 - 24</td> <td>10</td> <td>40.22 *</td> </tr> <tr> <td>04</td> <td>2024 - 25</td> <td>20</td> <td>20.10</td> </tr> <tr> <td>05</td> <td>Apr.25 – Sept.25</td> <td>--</td> <td>13.60</td> </tr> </tbody> </table> <p>Ref. Annexure – XVIII and Table No 1.1 of Annex XVIII). * Due to additional requirement.</p>	Sr. No.	Financial Year	Allocated Fund Rs. Lakhs	Spent amount Rs. Lakhs	01	2021 - 22	24	24	02	2022 - 23	20	27 *	03	2023 - 24	10	40.22 *	04	2024 - 25	20	20.10	05	Apr.25 – Sept.25	--	13.60
Sr. No.	Financial Year	Allocated Fund Rs. Lakhs	Spent amount Rs. Lakhs																							
01	2021 - 22	24	24																							
02	2022 - 23	20	27 *																							
03	2023 - 24	10	40.22 *																							
04	2024 - 25	20	20.10																							
05	Apr.25 – Sept.25	--	13.60																							
(ix)	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	IFFCO Kalol unit is contributing towards various social welfare measures in nearby villages and localities under IRDP schemes. Those measures include road construction, sanitation facilities, medical camps, drinking water supply. Details are attached as Ref. Annexure – XVIII and Table No 1.1 of Annex XVIII).																								
(x)	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.	Every year IFFCO Kalol earmark sufficient funds towards capital cost and recurring cost to implement environment management/ operate existing pollution control measures. The funds so earmarked for environment management/ operate existing pollution control measures are not diverted for any other purpose.																								
(xi)	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.	There were no suggestions / representations received from the concerned Panchayat, Zilla Parishad/ Municipal Corporation, Urban local Body and the local NGO while processing the proposal. However, one copy each of Environment clearance letter has been given to Sarpanch of nearby villages. Copies of receipt of Acknowledgement are attached as Annexure - XXIV .																								
(xii)	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e- mail) to the respective 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.	Noted, IFFCO Kalol Unit submit compliance report of EC conditions to Regional Office of MOEF & CC, Zonal office of CPCB & GPCB for every six months. Copy of Environmental Clearance and six-monthly compliance status report has been posted on the website of IFFCO.																								



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IFFCO Kalol Unit

Sr. No.	Conditions	Compliance Status
(xiii)	The environmental statement for each financial year ending 31 st 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 Regional Offices of MoEF&CC by e-mail.	Yes, every year the environmental statement for each financial year ending 31 st March in Form-V is submitted to GPCB. Copy of Environmental statement (Form V) for Year 2024 - 25 submitted to GPCB is attached as Annexure - XX . Same is also uploaded on the IFFCO website along with the status of compliance of environmental clearance conditions. Soft copy of same is sent to Regional Office of MoEF&CC, Gandhinagar by email.
(xiv)	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.	IFFCO had advertised information related to Environment clearance in two local newspapers one in Gujarati and another in English. Copies of advertisement published in Newspapers, such as Divya Bhaskar and Times of India are attached as Annexure – XXV .
(xv)	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.	CTE No. 61798 dtd 13/03/2023 obtained from GPCB for Expansion of Existing Fertilizer Plant for Manufacturing Nano Fertilizer and Nano Micronutrients. CTO / Amendment to CCA No GPCB/CCA-GNR-95(13)/ID-16444/824312 dated 14.10.2024 with validity up to 10.3.2028, obtained from GPCB.
(xvi)	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 IA
LATEST ENVIRONMENTAL CLEARANCE
(DATED 16.04.2024)



File No: J-11011/60/2009-IA-II(I)
Government of India
Ministry of Environment, Forest and
Climate Change
IA Division



Date 16/04/2024



To,

DG Inamdar Inamdar
INDIAN FARMERS FERTILIZER COOPERATIVE LIMITED (IFFCO)
IFFCO Sadan, C-1, Court Chowk Road, Saket District Centre, District Centre, Sector-6, Saket, New
Delhi , SOUTH, DELHI, , 110017
iffcofertilizer2020@gmail.com

Subject: Grant of prior Environmental Clearance (EC) to the proposed project “**Expansion and Modernization of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer and Nano Micronutrients**” at Plot no. 712/846, 855, 856 of Saij,17-37 of Dhanej, Kasturinagar, GIDC Kalol, District-Gandhinagar, Gujarat by M/s Indian Farmers Fertilizer Cooperative Limited ” 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/GJ/IND3/459862/2024 dated 25/1/2024 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.	EC24A1904GJ5656091N
(ii) File No.	J-11011/60/2009-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 Expansion and Modernization of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer and Nano Micronutrients” at Plot no. 712/846, 855, 856 of Saij,17-37 of Dhanej, Kasturinagar, GIDC Kalol, District- Gandhinagar, Gujarat
(vii) Name of Project	INDIAN FARMERS FERTILIZER COOPERATIVE LIMITED (IFFCO)
(viii) Name of Company/Organization	

(ix) Location of Project (District, State)	GANDHINAGAR, GUJARAT
(x) Issuing Authority	MoEF&CC
(xi) Applicability of General Conditions as per EIA Notification, 2006	No

3. The proposal is for the Environmental Clearance to the Expansion and Modernization of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer and Nano Micronutrients” at Plot no. 712/846, 855, 856 of Saij,17-37 of Dhanej, Kasturinagar, GIDC Kalol, District- Ghandhinagar, Gujarat by M/s Indian Farmers Fertilizer Cooperative Limited.

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 para 7(ii). The proposal was placed in 74th EAC meeting held on 7th 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 proposed project is “Expansion and modernization of existing fertilizer unit with respect to enhancement of Ammonia production and change of product profile of Nano Urea (4% to 20% nitrogen) content with change in process technology of Nano Fertilizer leading to raw material mix change” located at Plot no. 712/846,855,856 of Saij, 17-37 of Dhanej, Kasturinagar, Kalol GIDC, District-Gandhinagar, Gujarat. Latest Environmental Clearance was granted to plant from MoEF&CC vide F.No. J-11011/60/2009-IA-II(I) (EC Identification no: EC23A016GJ154380) dated 07/03/2023. Consent to operate for the same issued vide CCA-Amendment No AWH-129869 issue dated 21.10.2023 valid till 10.03.2028. Now, IFFCO Kalol has proposed “Expansion and modernization of existing fertilizer plant by enhancing the production of ammonia and change of Nano urea product profile to Nano Urea (4% to 20% nitrogen content) and change in the raw material mix due to process technology change of Nano Fertilizer within the existing plant without any change in the production capacity of Nano fertilizer. Therefore, after proposed expansion and modernization, the total production capacity of ammonia shall change from 4,01,500 MTPA to 4,16,100 MTPA without any change in pollution load except the increase in total water demand.

7. Earlier Expansion of Urea production was bifurcated in two stages which were Phase I i.e., enhance Urea production with Supply of Rich gas and Nano-fertilizer project-I and Phase II i.e., enhance Urea production with Supply of lean gas with installation of Carbon dioxide Recovery Unit (CDR). Modification in the plant has already been done as per the Phase I and installation of Nano fertilizer project has been completed. However, Phase- II will be implemented only when there will be supply of lean gas. In phase II, 200 MTPD of CO2 shall be recovered from the flue gas through CDR for production of Urea. Nano-fertilizer (Nano-I & II) Plant has been established in the existing premises. Now unit has proposed “Expansion & modernization only with respect to enhancement of production of ammonia considering the reassessed capacities along with change in product profile of NANO Urea to Nano Urea (with 4% to 20% Nitrogen content) with change raw material mix and process technology of Nano Fertilizer without any change in the production capacity of Nano Fertilizer.

8. There shall be no change in the project cost as the Expansion & modernization is proposed within the existing facilities for enhancement of Ammonia within existing unit based on reassessed capacity at 1140 MTPD as per Casale revamp & modernization of Ammonia plant with on stream days of 365 in a year.

9. The PP reported that the Existing land area is 95.5158 Ha. No additional land will be required for proposed expansion and modernization and no R& R is involved in the Project. 33.43 ha land area (35% of total plot area) has been earmarked for greenbelt development. The details of products to be manufactured are as follows:

Product	Unit	As per Latest EC granted	Additional/Proposed	After Expansion	Remarks
Ammonia	MTPA	4,01,500	14,600	4,16,100	Increase in production based on reassessed

					capacity at 1140 MTPD as per Casale revamp & modernization of Ammonia plant with on stream days of 365 in a year. There is no increase in gaseous emission. Environment related parameters from the stack of Primary reformer is well within the limit.
Urea (100%) (Fertiliser Grade/Tech Grade)	MTPA	6,75,000 max or	0	6,75,000 max or	No changes as per EC Granted
Urea (100%) or & Diesel Exhaust Fluid (32.5% of Urea Solution)	MTPA	5,44,500 & 4,01,538 i.e.,(Equivalent to 1,30,500 of 100% Urea) max or #	0	5,44,500 & 4,01,538 i.e.,(Equivalent to 1,30,500 of 100% Urea) max or #	No changes as per EC Granted
Urea (100%) or & Diesel Exhaust Fluid (40% of Urea Solution)	MTPA	5,44,500 & 3,26,250 i.e.,(Equivalent to 1,30,500 of 100% Urea) max #	0	5,44,500 & 3,26,250 i.e.,(Equivalent to 1,30,500 of 100% Urea) max #	
Nano Fertilisers @ (a) Nano Urea (4% to 20% Nitrogen) & (b) Nano Micro Nutrients (Nano Zinc/ Nano Copper/ Nano Boron/ Nano Sulphur) (c) Nano DAP	KLPA	100375	-	100375**	Change in Nano fertilizer process technology and product formulation of nano Urea
<p>Note - # Depending upon the requirement of urea fertilizer in the market, there shall be variation in quantity of DEF (32.5% and/or 40% urea Solution) production. The total urea production shall, however, be limited to 6,75,000 MTPA (Maximum) under all the above combinations.</p> <p>** Products shall be manufactured in any combination or single product in both plants i.e., Nano I & Nano II on demand basis. However, total capacity of plant will be limited to 100375 KLPA.</p>					

10 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.

11. Ministry had issued EC earlier vide letter no **J-11011/60/2009-IA-II(I)** dated **07.03.2023** for project “**Expansion of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer and Nano Micronutrients at Plot no. 712/846,855, 856 of Saij,17-37 of Dhanej, Kasturinagar, Kalol GIDC, District - Gandhinagar, Gujarat- 382423**” by M/s Indian Farmers Fertilizer Cooperative Limited (IFFCO)

12. The PP reported that Certified compliance was issued by IRO, MoEF&CC Gandhinagar on 27.12.2023. As per the report, out of total 42 conditions, 31 are complied, 2 are partly complied and 5 are agreed to comply by the project proponent, 3 conditions are noted by the unit whereas 1 condition is not applicable to the unit. Response of partly complied point was submitted by IFFCO to IRO, MoEF&CC. Following point wise reply submitted vide letter dated 7.1.2024 to observations as per Certified monitoring and Compliance report , received from RO, MOEF&CC,

Sr. No.	EC Condition (Observations made by IRO)	Compliance Status (Response by PP)
1	<p>Specific condition No (xi) as per EC dated 1.2.2021</p> <p>Total freshwater requirements shall not exceed 10371 cum/day proposed to be met from existing water supply from Narmada canal to the IFFCO Kalol unit. Necessary permission in this regard shall be obtained from the concerned regulatory authority, and renewed from time to time.</p> <p>Specific condition No iv of EC dated 24.8.2021</p> <p>Total fresh water requirement shall not exceed 10069 KLD (in Phase I) and 10493 KLD (in Phase II). Prior permission in this regard shall be obtained from the concerned regulatory authority</p> <p>Specific condition No iv of EC dated 7.3.2023</p> <p>The total freshwater requirement after expansion will be 10190 KLD (in Phase-I) and 10614 KLD (in Phase-II). Freshwater will be met by Sardar Sarovar Narmada Nigam Ltd. (SSNNL). The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining prior agreement from Concerned Authority.</p> <p>The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF & CC before 1st July of every year for the activities carried out during the previous year.</p>	<p>Party complied</p> <p>During visit it was informed that their water requirement is as per EC F.NoJ-11011/60/2009-IA-II(I) dated 7th March 2023 which is well within the prescribed limit of 10190 KLD (In phase I) .</p> <p>The value of raw water consumption varies from 9588.67 m³/day – 10231.93 m³/day.</p> <p>The unit is having valid agreement with M/s Sardar Sarovar Narmada Nigam Ltd (SSNNL) for supply of Narmada Canal Water and is valid up to 22/02/2026. Copy of agreement is submitted .</p> <p>Reply : Average daily raw water consumption for the period October 2022-March 2023 was 10327 KLD which is higher due to utilization of fresh water for construction activities at Nano fertilizer complex and for development of green belt activities around Nano fertilizer complex.</p> <p>However, average daily raw water consumption for the period April 2023-December 2023 was 9876 KLD which is</p>

		less than the limit of 10190 KLD. Details of average daily water consumption (Month-wise) for the period October 2022- March 2023 & for the period April 2023 – December 2023 is attached herewith as Annexure -I,
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Sr. No.	Condition	Compliance Status & Reply to queries
2	<p>Specific condition No vi of EC dated 1.2.2021</p> <p>As proposed, atleast Rs.36.5lakhs shall be earmarked for conservation plan and shall be implemented in coordination with State Forest & Wildlife Department/Local Village Administration.</p>	<p>Party complied.</p> <p>As per the records furnished during the site visit, it was observed that Rs.36.5lakhs has been earmarked for wildlife conservation plan</p> <p>After review by the Range Forest Officer, Kadi Wildlife Range, Revised wildlife conservation plan incorporating GPS location has been submitted at his office on 9.8.2021 vide letter No EPC/02/1365 for approval of the plan.</p> <p>The unit is directed to submit copy of wildlife conservation plan with details of activities undertaken and completed to this office.</p> <p>Reply: Reminder Letter no. EPC/02/3005 dated 16.1.2024 submitted in the office of Principal Chief Conservator Forests (Wildlife), Gujarat state is submitted. Approval of wildlife conservation plan is awaited from State Forest Department</p>
3	<p>General observation (Ref clause No ii of summary note of letter issued by RO, MOEF&CC, Gandhinagar</p> <p>No major non compliance has been observed during the site inspection. It is further advised to explore the feasibility of reducing dust from the prilling tower.</p>	<p>Reply :Urea Plant was commissioned in 1975. Free fall height of prill tower is 51.7 m and till March 2015, In prilling process urea melt (with the concentration of 99.4% with moisture content of 0.6%) is pumped to top of prilling tower and fed into prilling bucket. Earlier conventional prill bucket of SIMCO Make was utilized. During that period, prill tower emission was in the range of 120 - 130 mg/Nm3 which was well within the prescribed limit of 150 mg/NM3.</p> <p>As a part of resource conservation and environment protection with respect to reduction of particulate emission, VibroPriller developed by M/s Grace Engineering ,Ukrain was installed and commissioned in April 2015.</p> <p>This has resulted in following benefits.</p> <ol style="list-style-type: none"> 1. Reduction in prill tower emission from 120 – 130 mg/Nm3 to less than 100 mg/Nm3 2. Reduction in Frequency of shutdown of prilling section due to less scrapper build up / less deposition of materials. 3. Uniform prill size distribution (with less than 1 mm size prills is less than 1%) resulting in reduced dust generation. 4. Increase in crushing strength of urea prills 5. Number of batches of dust dissolving in tank has reduced by 30 to 40%. 6. Reduction in urea prill temperature by about 10 deg C at the bottom of

		<p>prill tower resulting in reduction in load on prill cooling system.</p> <p>Moisture content in urea melt is reduced from 0.6% to 0.5% in the prilling process and there is also release of water vapour alongwith urea dust emission from the top of prill tower.</p> <p>After installation of VibroPriller, prill tower emission is less than 100 mg/Nm³. Analysis report as per Gujarat Pollution Control Board and report is submitted by Schedule I auditor.</p> <p>Since the prill tower is of 1975, installation of dust recovery system at the top of prill tower will result in additional load over prilling tower.</p>
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The Committee was satisfied with the response of PP.

13 The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. It is reported that Thol Bird Sanctuary (11.4 Km, SW). Two river/Canal/water bodies are present in 10 Km radius of project site i.e., Narmada Canal (2.8 Km, S) and Sabarmati River (12.8 Km, ESE). *Pavo cristatus* (Indian Peafowl) and *Varanus bengalensis* (Monitor Lizard) which are Schedule-I species have been identified in the study area. Conservation plan for the same has been prepared and submitted to CWW for approval.

14. Ambient air quality monitoring was carried out at 8 locations during 1st October 2021 to 31st December 2021 and the baseline data indicates the range of concentrations as PM10 (43 – 90 g/m³), PM2.5 (19 - 49 g/m³), SO₂ (5.14 – 16.20 µg/m³) and NO₂ (13.40 – 29.20 g/m³), NH₃ (18.50 – 48.40 g/m³) and CO (0.58 – 1.32 mg/m³). All parameters are within the National Ambient Air Quality Standards (NAAQS).

15. The PP reported that after Expansion & modernization, there will be requirement of additional 475 KLD of freshwater which will be suffice by existing supply. The total freshwater requirement will increase to 10665 KLD (Phase-I without CDR) and further increase to 11089 KLD (Phase-II with CDR). Fresh water is being met by Sardar Sarovar Narmada Nigam Ltd. (SSNNL). The total wastewater generation after expansion in Phase I and Phase II will change from 1459 KLD (Phase I) to 1492 (increase by 33 KLD) and 1519 KLD (Phase II) to 1560 (increase by 41 KLD) respectively. Wastewater streams are segregated into two categories i.e., Weak effluent containing – Low TDS and Strong effluent containing - High TDS. Normally weak effluent (Containing less TDS) from water treatment plant, HCl storage tanks fumes scrubber are collected in Neutralization tank. The effluents collected from domestic open channel network including cooling water blow down, sand filters back wash, effluents from knockout drums & surface drain are collected in bulk effluent tank by an underground line of 350 mm dia. The strong / off-spec. effluent especially from urea plant (in case of upset condition) and partly from DM plant during regeneration of ion exchange units (after segregation) is collected in strong effluent storage tanks in ETP. Same is pumped to Off-Spec effluent pond having capacity of 40,000 m³ and is allowed for natural evaporation. Treated water from Bulk Effluent tank is being used for horticulture/ gardening/ green belt development purpose within the plant area. The treated water is meeting the desired quality norms as per GPCB. Online monitoring instruments for measurement of pH, flow and ammonical nitrogen at the discharge line of ETP have been installed and connectivity has been established with GPCB & CPCB Servers. In existing plant, the domestic wastewater is partially treated in the existing ETP, and flushing wastewater is discharged to soak pits. For nano fertilizer plant, ETP plant has already been set up with total capacity of 35 KLD. Out of 35 KLD, MEE, Stripper and ATFD will have capacity of 25 KLD. Treated water will be reused for horticulture/ gardening/ green belt development purposes. Prior approval has been taken to reuse treated water in horticulture/ gardening/ green belt as per CPCB guidelines.

16. There shall be no change in the power requirement. The power requirement after expansion will be 282 MWH in Phase-I and 305 MWH in Phase-II which will be sourced from Uttar Gujarat Vij Company Ltd. (UGVCL). There is continuous power supply from UGVCL. For Power backup, additional 2 x 250 KVA DG set is proposed with stack height of 12.8 m along with existing DG sets of capacity 2200 KW & 860 KW will be used. Stack (24 m for 2200 KVA, 22 m for 860 KVA) is provided as per CPCB norms to the existing DG sets.

17. Existing unit has 1 nos. of Natural gas-based boilers (80 TPH). During normal course of operation of Nano Fertiliser Plant, surplus LP Steam available from Urea-Ammonia Plant is being used. However, during shutdown of Ammonia-Urea

plant, there is requirement of LP steam for normal operation of Nano Fertilizer Plant. Therefore, a standby boiler of 6 TPH will be installed with 30 m stack height to meet steam requirement of Nano-Fertilizer plant. Approval for additional boiler was taken in earlier Environmental clearance letter. Stack of 35 m has been provided for 80 TPH capacity boiler.

18. Details of Fuels:

Particular	Type of Fuel	As per EC		After Expansion	
		Phase I	Phase II	Phase I	Phase II
Steam Boiler	Natural Gas	0.15 MMSCMD	0.16 MMSCMD	0.15 MMSCMD	0.16 MMSCMD
DG Set –2200 KW & 860 KW & 2X250 KVA **	HSD	440 litre/hr	440 litre/hr	560 litre/hr	560 litre/hr

Details of Flue gas & Process emissions generation and its management:

S. No.	Stack Attached	Fuel Used	APCM	Expected Pollutants	Status
Existing Stacks					
1	Steam Boiler – 80000 kg/hr	Natural gas	35 m Stack height	PM, SO ₂ & NO _x	Already Installed
2	DG Set –2200 KW & 860 KW	HSD	24 m for 2200 KW & 22 m for 860 KW	PM, SO ₂ & NO _x	Already Installed
3	Steam Boiler (6 TPH)	Natural gas	30 m stack Height	PM, SO ₂ & NO _x	Shall be installed (Approval was taken in earlier EC)
Proposed Stacks					
1	DG Set – 2 x 250 KVA	HSD	12.8 m stack Height	PM, SO ₂ & NO _x	Shall be installed
Process Stacks / Vents					
Existing Stacks					
1	Prilling Tower – 4 Nos	-	Stack Height 68.5 m with Induced Draft, Vibropriller.	PM	Already Installed
2	Ammonia Scrubber	-	Venturi Water scrubber & 71 m stack Height	NH ₃	Already Installed
3	Ammonia Plant Primary Reformer	-	Stack Height of 40 m	PM, SO ₂ & NO _x	Already Installed

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 Generation	Category of No. (As per Sch-I&II 2016)	Quantity	Mode of Treatment & Disposal Method
1	Discarded Barrels/ Containers/ Liners contaminated with hazardous chemicals / wastes	Storage & Handling of Raw Materials	Sch-I/33.1	1500 Nos. Containers/Barrels /Year, & 15000 Nos. HDPE Drums	Collection, Storage, Decontamination, and sale to authorized decontamination facility/ authorized recycler.
2	Bags contaminated with hazardous	Storage & Handling of Raw Materials	Sch-I/33.1	150 MT/Year HDPE Bags	Collection, Storage, and sale to authorized recycler.

	chemicals / wastes				
3	Used oil/ Spent Oil	Process	Sch-I/5.1	88.8 MTPA	Collection, storage in MS drum, transportation and disposal by selling to registered Re-refiners.
4	ETP Sludge	In-house ETP	Sch-I/35.3	180 MTPA	Collected in Drying Pits, stored in HDPE bags, Transported and disposed off to GPCB approved TSDF site.
5	Phosphoric acid Sludge	From solids settling in Phosphoric acid storage tank		150 MTPA	This will be collected, dried, stored in HDPE bags and transported to IFFCO Kandla by road for use in DAP Manufacture.
6	Spent Catalyst	Ammonia/Urea Process	Sch -I/ 18.1	100 MTPA	Collection, storage, transportation and disposal by selling to registered and authorized recyclers.
7	Spent Carbon	Ammonia/ DM Plant Process	Sch-I/ 18.2	228 MTPA	Collection, storage in HDPE bags, Transportation and disposal to authorized TSDF site / Co-processing at authorized cement industries.
8	Spent Resin	DM Plant Process	Sch-I/ 35.2	228 M3/Year	Collected and stored in HDPE bags, Transported and disposed off to authorized TSDF site / Co-processing at authorized cement industries.
9	MEE Sludge	In-house MEE & ETP (Proposed Nano Fertiliser plant)	Sch-I/35.3	91.25 MTPA	Shall be Collected in Drying Pits, stored in HDPE bags, Transported, and disposed off to GPCB approved TSDF site.
Note: Actual generation quantities of hazardous wastes are much lower than the quantity mentioned in CCA and same is likely to continue even after the proposed expansion for few wastes.					

19. The Budget earmarked towards the Environmental Management Plan (EMP) is 5857.1 Lakhs(capital) and the Recurring Cost (operation and maintenance) will be about 1657.5 Lakhs / year. Industry proposes to allocate Rs. 62 Lakhs towards Corporate Environment Responsibility.

20. Industry will maintain green area of 47.4266 Ha which is 49.65% of total plot area. As per MoEF&CC requirement, it is mandated to have 33% of green area exclusively for green belt thus, 33.43 Ha of area which is 35% of plot area is provided with green belt area having dense trees and rest area within green area is provided with shrubs, herbs, and lawn.

21. The PP reported that the Public hearing is exempted as as per clause 7(ii)(a) as per OM dated 11th April 2022 & the unit lies in the notified industrial area i.e. GIDC kalol, which declared as on vide notification dtd 7th March, 1973 (as per clause 7 (i) (iii) stage (3)(i)(b) of EIA notification 2006 (as per OM J-11011/321/2016-IA. II(I) dated 27th April 2018)

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

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

24. No major additional cost under proposed expansion & modernization is envisaged as the slight capacity enhancement/expansion of Ammonia plant is proposed without any change in equipment based on the reassessed capacity. Also, change

in raw material mix for Nano DAP and Nano urea with change in product profile of Nano urea is proposed without any change in capacity or plant configuration. There shall be additional **Rs 50 Crores for CDR** in case of lean gas supply in ammonia plant. CDR will be installed only when the supply of Natural gas changes to Lean gas from Rich gas. Total Employment in the plant is approx. 2000 persons during operation phase. No further increase in employment is proposed.

25. Deliberations by the EAC : During deliberations, EAC discussed the following issues:

1. PP informed that the municipal solid waste generation at the project site is 400 kg/day which is being segregated in biodegradable waste and recyclable waste. Recyclable waste is being sold off to different authorized vendors. Biodegradable waste is being sent to municipal land fill site through authorised agency. After expansion, 500 kg/day of municipal waste will be generated. As a part of zero solid waste management following measures have been considered for implementation. Canteen waste generated in plant canteen shall be converted into manure using composting machine having capacity of 50 kg/hr and curing chamber (2 Nos) of 25 kg capacity each. Horticulture waste generated in the complex shall be converted into compost and shall be used for within the complex for gardening and horticulture.
2. PP has submitted revised capital and Recurring cost of EMP. Capital cost and recurring cost earmarked is Rs. 5898.1 lakh and 1660.5 lakh per annum.

Break up of Recurring cost of Occupational Health centre at IFFCO Kalol Plant

Sr. No.	Details for the year 2022 - 2023	Rs. in Lakhs
1	Cost of medical check-up of employees	10.5
2	Cost of medicines utilized towards treatment of patients	168
3	Cost of Annual maintenance contract for medical equipment	0.86
4	Cost of collection and disposal of biomedical waste for incineration by GPCB approved Agency	1.2
5	Total cost towards medical bills (Normal and SMS) of employees and dependents	300.2
6	Operational cost of Ambulance used in plant dispensary	14.1
Total		495

ENVIRONMENTAL MANAGEMENT COST BREAKUP

Sr. No.	Particulars	Existing expenditure			
		Capital Cost (In Rs lakhs)	Remarks	Recurring Cost (2022-23) (In Rs lakhs/yr)	Remarks
1	Air pollution control schemes	696.4	Dust extraction system, Ammonia recovery unit, scrubber in Urea Plant, etc.,	195	Cost of electricity, maintenance, and manpower for Dust extraction system, Ammonia recovery unit, scrubber in Urea Plant, etc.,
2	Water pollution control schemes	4182.3	Installation of ETP, ETS, MEE, STP, Hydrolyser	687	Cost for Chemicals, electricity, maintenance and manpower for ETP, ETS, MEE, STP, Hydrolyser and Water supply
3	Hazardous Waste Management	15	Cost of hazardous waste storage shed and ETP sludge drying bed	3	Cost incurred for disposal Hazardous waste like ETP Sludge & spent resin
4	Solid waste Management	26	Cost of civil structure, composting machine	44.5	AMC For solid waste Management
5	Environment monitoring and management	187.9	Air emission monitoring instruments including ambient air monitoring station, Noise monitoring instruments, Water pollutants monitoring instrument, Continues ambient air monitoring station, AMC / Calibration of Environment related	140	Recurring cost including manpower cost, cost of chemicals and glassware, AMC of instruments, Environment sampling and analysis by third party agency.

			instruments, Online analyzer for Ammonical Nitrogen with GPCB/CPCB connectivity. Ammonia gas detector system, Chlorine gas detector system		Recurring cost includes Fees paid to schedule-I auditor, Fees paid to GPCB towards analysis charges, fees paid to ISO 14001 certification, manpower cost.
Sr. No.	Particulars	Existing expenditure			
		Capital Cost (In Rs lakhs)	Remarks	Recurring Cost (2022-23) (In Rs lakhs/yr)	Remarks
6	Occupational health	48.5	Cost Spent toward OHC infrastructure	495	Recurring cost includes, medical checkup of employees, medical reimbursement to employees and dependents, medicine supplies to Dispensary (OHC), Ambulance with two drivers, disposal of bio medical waste for incineration, annual maintenance cost of medical equipment.
7	Greenbelt development	742	Cost spent for Planting Trees at various locations including at NFP-1 & NFP-2	96	AMC for maintenance & development of gardens, greenbelt development.
	Total	5898.1		1660.5	

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.

26. The EAC, after detailed deliberations, recommended the project for the grant of environmental clearance, subject to the compliance of the specific terms and conditions and general terms and conditions at Annexure 1.

27. Based on the recommendations made by EAC (Industry- 3) in its 74th EAC and 75th EAC meetings held on 6-7th Feb 2024 and 26th February 2024 respectively, Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the project to set up **“Expansion and Modernization of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer and Nano Micronutrients” at Plot no. 712/846, 855, 856 of Saij, 17-37 of Dhanej, Kasturinagar, GIDC Kalol, District- Ghandhinagar, Gujarat by M/s Indian Farmers Fertilizer Cooperative Limited”** under the provisions of the EIA Notification, 2006, and the amendments therein. 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

This issues with the approval of the Competent Authority.

Copy To

1. The Principal Secretary, Forests & Environment Department, Government of Gujarat, Sachivalaya, 8th Floor, Gandhi Nagar - 382 010 (Gujarat)
2. The Deputy Director General of Forests (C) Ministry of Env., Forest and Climate Change, Integrated Regional Office, Gandhi Nagar, A-Wing – 407 & 409, Aranya Bhawan, Near CH-3 Circle, Sector-10A, Gandhi Nagar - 382010
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -32
4. The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhawan, Sector 10 A, Gandhi Nagar-382 043 (Gujarat)
5. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
6. District Collector Office, District Collector & Jilla Seva Sadan Kacheri, Near Pathika Ashram, GH Road, Sector 11, Gandhinagar, Gujarat - 382017.
7. Guard File/Monitoring File/PARIVESH

Annexure 1

Specific EC Conditions for (Chemical Fertilizers)

1. Specific Conditions

S. No	EC Conditions
1.1	<p>(i) As proposed, the manufacturing process of nano-fertilizer plant is a closed loop reactor vessel setup with regulated control and steam being produced in the existing plants is being used for operation of plant. Stack of adequate height shall be provided to Additional gas fired LP Boiler of 6 TPH for Nano Fertiliser plant. Stack of adequate height shall be provided to additional DG set of 2x250 KVA as per CPCB guidelines.</p> <p>(ii) The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.</p> <p>(iii) Total fresh water requirement from Sardar Sarovar Narmada Nigam Ltd. shall not exceed 10665 KLD after expansion in Phase-I without CDR and 11089 KLD in Phase-II with CDR.</p> <p>(iv) NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the surface water for the project activities, State Pollution Control Board / Pollution Control Committees 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.</p> <p>(v) The total wastewater generation after expansion in Phase I and Phase II of the fertilizer complex shall not exceed 1492 KLD and 1560 KLD respectively. Out of which, effluent generation from nano fertilizer plant shall not exceed 35 KLD. Effluent from nano fertilizer plant shall be treated in the ETP of 35 KLD comprising MEE, Stripper and ATFD have a capacity of 25 KLD. Sewage Treatment Plant (Capacity 30 KLD) based on MBR Technology has been installed in the Nano-fertilizer plant. Treated effluent from above said ETPs & STP shall be recycled/reused within plant premises and there shall be no discharge of wastewater outside and thus establishing ZLD within the project site.</p> <p>(vi) The PP shall develop greenbelt of at least 10 m width over an area of 33.43 ha within the project site mainly along the plant periphery, preferably within a year of the grant of EC. Adequate tree saplings selected for the plantation should be of sufficient height, preferably 6-ft shall be planted in greenbelt area. 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</p>

S. No	EC Conditions
	<p>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.</p> <p>(vii) A separate Environmental Management Cell (having qualified person 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. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.</p> <p>(viii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget already spent under EMP is 5898.1 lakhs (Capital cost) and 1660.5lakhs per annum (Recurring cost) shall be kept in 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 previous year.</p> <p>(ix) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.</p> <p>(x) 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 29.12.2017 under the provisions of the Environment (Protection) Rules, 1986.</p> <p>(xi) The project proponent 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.</p> <p>(xii) All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either sent to common incineration site or sent for coprocessing. 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.</p> <p>(xiii) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous 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 MSIHC 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.</p> <p>(xiv) 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.</p> <p>(xv) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.</p> <p>(xvi) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity</p>

S. No	EC Conditions
	<p>and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.</p> <p>(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.</p> <p>(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.</p> <p>(xix) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.</p> <p>(xx) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be fire proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.</p> <p>(xxi) 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.</p> <p>(xxii) 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.</p> <p>(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.</p>

Standard EC Conditions for (Chemical fertilizers)

1.

S. No	EC Conditions
1.1	<p>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.</p>
1.2	<p>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</p>

S. No	EC Conditions
	other rules notified under various Acts.
1.3	The energy source for lighting purpose shall be preferably LED based, or advanced having 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

S. No	EC Conditions
	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



ANNEXURE IB
EARLIER ENVIRONMENTAL CLEARANCE
(DATED 07.03.2023)



Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The Director
INDIAN FARMERS FERTILIZER COOPERATIVE LIMITED (IFFCO)
IFFCO Kalol Unit, P.O. Kasturi Nagar, District Gandhinagar, North Gujarat
– 382423,,Gandhinagar,Gujarat-382423

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/GJ/IND3/412440/2022 dated 21 Feb 2023. The particulars of the environmental clearance granted to the project are as below.

- EC Identification No.** EC23A016GJ154380
- File No.** J-11011/60/2009-IA-II(I)
- Project Type** Expansion
- Category** A
- Project/Activity including Schedule No.** 5(a) Chemical fertilizers
- Name of Project** Expansion of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer and Nano Micronutrients at Plot no. 712/846, 855, 856 of Saij, 17-37 of Dhanej, Kasturinagar, Kalol GIDC, District - Gandhinagar, Gujarat- 382423
- Name of Company/Organization** INDIAN FARMERS FERTILIZER COOPERATIVE LIMITED (IFFCO)
- Location of Project** Gujarat
- TOR Date** N/A

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 07/03/2023

(e-signed)
Mr. Motipalli Ramesh
Scientist E
IA - (Industrial Projects - 3 sector)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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PARIVESH

(Pro-Active and Responsive Facilitation by Interactive,
and Virtuous Environment Single-Window Hub)



F. No. J-11011/60/2009-IA-II (I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan,
Jorbagh Road,
New Delhi - 110003

Dated: 7th March, 2023

To

M/s. Indian Farmers Fertilizer Cooperative Limited (IFFCO)

IFFCO Kalol Unit, P.O. Kasturi Nagar,
District Gandhinagar, North Gujarat – 382423
Email: iffcofertilizer2020@gmail.com

Subject: Expansion of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer and Nano Micronutrients of production capacity (Ammonia- 4,01,500 MTPA, Urea (100%)- 6,75,000, Diesel Exhaust Fluid (DEF) (32.5% Urea Solution) upto 4,01,538 (Equivalent to 1,30,500 MTPA Urea), Nano Fertilizers @ Nano Urea/Nano Micronutrients (Nano Zinc/ Nano Copper/ Nano Boron/ Nano Sulphur)/Nano DAP (Nano I + Nano II)- 100375 KLPA) located at Plot no. 712/846, 855, 856 of Saij, 17-37 of Dhanej, Kasturinagar, Kalol GIDC, District Gandhinagar, Gujarat by Indian Farmers Fertilizer Cooperative Limited (IFFCO) - Environmental Clearance

Sir,

This has reference to your proposal No. **IA/GJ/IND3/412440/2022**, on the above subject matter.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for Environmental Clearance to the project for Expansion of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer and Nano Micronutrients of production capacity (Ammonia- 4,01,500 MTPA, Urea (100%)- 6,75,000, Diesel Exhaust Fluid (DEF) (32.5% Urea Solution) upto 4,01,538 (Equivalent to 1,30,500 MTPA Urea), Nano Fertilizers @ Nano Urea/Nano Micronutrients (Nano Zinc/ Nano Copper/ Nano Boron/ Nano Sulphur)/Nano DAP (Nano I + Nano II)- 100375 KLPA) located at Plot no. 712/846, 855, 856 of Saij, 17-37 of Dhanej, Kasturinagar, Kalol GIDC, District Gandhinagar, Gujarat by Indian Farmers Fertilizer Cooperative Limited (IFFCO).

3. The project/activity is covered under Category 'A' of item 5 (a) Chemical Fertilizers of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). Therefore, the project requires appraisal at Central Level.

4. The PP applied for ToR on 07.04.2022 and the Standard ToR was issued on 20.04.2022. The PP applied for Environment Clearance on 11.1.2023 in CAF and submitted EIA/EMP Report and other documents. The PP in the CAF reported that it is an **Expansion EC case**. Due to some shortcomings, the Project was referred back to PP on 19.1.2023 and reply to the same was submitted on 23.1.2023. The proposal was placed in 46th EAC Meeting held on 30th - 31st January & 1st February 2023, wherein the PP and an accredited Consultant, M/s EQMS India Pvt. Ltd [Accreditation number NABET/EIA/1922/RA 0197, valid upto 3.5.2023], made a detailed presentation on the salient features of the project and informed the following:

5. The PP reported that the existing land area is 95.5158 Ha. No additional land will be required for proposed expansion and no R& R is involved in the Project. The details of products are as follows:

Product	Unit	As per Latest EC granted	Additional/ Proposed	After Expansion	Remarks
Ammonia	MTPA	4,01,500	0	4,01,500	No changes
Urea (100%) (Fertiliser Grade/Tech Grade)	MTPA	6,75,000 max or	0	6,75,000 max or	
Urea (100%) or & Diesel Exhaust Fluid (32.5% of Urea Solution)	MTPA	5,44,500 & 4,01,538 i.e., (Equivalent to 1,30,500 of 100% Urea) max or #	0	5,44,500 & 4,01,538 i.e., (Equivalent to 1,30,500 of 100% Urea) max or #	
Urea (100%) or & Diesel Exhaust Fluid (40% of Urea Solution)	MTPA	5,44,500 & 3,26,250 i.e., (Equivalent to 1,30,500 of 100% Urea) max #	0	5,44,500 & 3,26,250 i.e., (Equivalent to 1,30,500 of 100% Urea) max #	
Nano Fertilizers @ Nano Urea/Nano Micronutrients (Nano Zinc/ Nano Copper/ Nano Boron/ Nano Sulphur) /Nano DAP** (Nano I + Nano II)	KLPA	63875	36500	100375**	Addition of Nano DAP and Nano Micronutrients (Nano Boron & Nano Sulphur)
<p>Note - # Depending upon the requirement of urea fertilizer in the market, there shall be variation in quantity of DEF (32.5% and/or 40% urea Solution) production. The total urea production shall, however, be limited to 6,75,000 MTPA (Maximum) under all the above combinations.</p> <p>** Products shall be manufactured in any combination or single product in both plants i.e., Nano I & Nano II on demand basis. However, total capacity of plant will be limited to 100375 KLPA.</p> <p>@ Nano Urea contains 40000 ppm (Min) of nitrogen, Nano Zinc contains 10000 ppm (Min) of Zinc and Nano copper contains 8000 ppm (Min) of copper.</p> <p>@ Nano Boron contains 4500 ppm (Min) of Boron, Nano Sulphur contains 10000 ppm (Min) of Sulphur and Nano DAP contains 8 % of Nitrogen (Min) and 16 % of P2O5(Min).</p>					

6. 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 E (P) Act/Air Act/Water Act.

7. The PP reported that Ministry had issued EC earlier vide letter no. **J-11011/60/2009-IA-II(I) dated 24.08.2021** for the existing project, Expansion/Modernization of the Fertilizer Plant. Certified compliance was given by IRO, MoEF&CC Gandhinagar on 18.07.2022. As per the report, out of total

38 conditions, 26 are complied, 4 are partly complied and 6 are agreed to comply by the project proponent, 1 condition is noted by the unit whereas 1 condition is not applicable to the unit. Response of partly complied conditions (*copy of wildlife conservation plan, details of third party carrying out monthly monitoring of AAQ and noise, details of expenditure incurred for environment management/pollution control measures*) was submitted by IFFCO to IRO, MoEF&CC on 01.11.2022.

8. The PP reported that There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Two river/Canal/water bodies are present in 10 Km radius of project site i.e., Narmada Canal (2.8 Km, S) and Sabarmati River (12.8 Km, ESE). The PP reported that no forest area is involved in the proposed project and two Schedule-I species i.e Pavo cristatus (Indian Peafowl), **Indian Monitor/Lizard** exist within 10 km study area of the project for which conservation plan has been submitted to Chief wildlife warden dated 9.8.2021

9. The PP reported that Ambient air quality monitoring was carried out at 8 locations during 1st October 2021 to 31st December 2021 and the baseline data indicates the range of concentrations as PM₁₀ (43 – 90 µg/m³), PM_{2.5} (19 - 49 µg/m³), SO₂ (5.14 – 16.20 µg/m³) and NO₂ (13.40 – 29.20 µg/m³), NH₃ (18.50 – 48.40 µg/m³) and CO (0.58 – 1.32 mg/m³). All parameters are within the National Ambient Air Quality Standards (NAAQS). Ambient Noise quality monitoring was carried out at 8 locations during the 1st October 2021 to 31st December 2021 and baseline data indicates the range of concentrations as Day Noise (49.9-62.4 dB(A)) and Night Noise (37.1-52.1 dB(A)). The noise level is within the prescribed limit in all the monitoring stations except at N3 (Kalol (Nr. Institute of Pharmacy)) and N8 (Nirma University Tragad). The noise level exceeded at these locations due to nearby residential areas leading to community noise as well vehicular traffic in the area contributes to noise levels in the area.

10. Ground water quality monitoring was carried out at 8 locations during the 1st October 2021 to 31st December 2021 and baseline data indicates pH ranged between to 6.79 to 7.69 which are well within the specified standard of 6.5 to 8.5 limit. Total hardness levels were recorded in the range between 328 to 684 mg/l which is within the permissible limit 600 mg/l at all locations except at GW6 i.e., Ramnagar. The Total Dissolved Solids (TDS) concentration recorded ranged between 765 to 2160 mg/l and was within the permissible limits (2000 mg/l) at all locations except at GW1 (nearby project site). Chlorides at all the locations were within the permissible limits (1000 mg/l) as it ranged between 215 – 716 mg/l. Sulphates at all the locations were within the permissible limits (400 mg/l) as it ranged between 65 – 226 mg/l. Bacteriological studies reveal that no coliform bacterial are present in the samples. The heavy metal contents were observed to be in below detectable limits. All physical and general parameters were observed within the permissible limit as per IS10500:2012 (Second Revision). Thus, it is recommended that water be filtered and disinfected prior to be given for drinking water requirements.

11. Surface water quality monitoring was carried out at 3 locations during the 1st October 2021 to 31st December 2021 and baseline data indicates pH values of all analysed samples ranged between 7.52 to 7.63. TDS levels were observed to be in range from 204 to 1220 mg/l. Total hardness levels were observed to be in the range of 142 to 286 mg/l. Dissolved Oxygen values ranged between 6.6 to 7.3 mg/l. The chlorides level was observed to be in range of 36 to 369 mg/l. Sulphate level were found to be ranging from 10 to 118 mg/l. Nitrate levels were found to be observed within the range of 9.4 to 26.5 mg/l. Total Coliform levels were found to be in the range of 120 to 4600 MPN/100 ml. Biochemical Oxygen Demand (BOD) was observed to be in range of 2.1 to 4.3 mg/l. Comparing the values of pH, DO, BOD and Total Coliforms with 'Use based classification of surface waters' published by Central Pollution Control Board; it can be seen that the analysed surface waters is

moderately polluted and classified as “Class ‘C’ and can be used for as Drinking water source after conventional treatment and disinfection.

12. The PP reported that total freshwater requirement after expansion will be 10190 KLD (in Phase-I) and 10614 KLD (in Phase-II). Fresh water will be met by Sardar Sarovar Narmada Nigam Ltd. (SSNNL). The total wastewater generation after expansion in Phase I and Phase II will increase from 1449.5 KLD (Phase I) to 1459 KLD (Phase I) and 1509.5 KLD (Phase II) to 1519 KLD (Phase II) respectively. Wastewater streams are segregated into two categories i.e., Weak effluent containing – Low TDS and Strong effluent containing - High TDS. Normally weak effluent (Containing less TDS) from water treatment plant, HCl storage tanks fumes scrubber is collected in Neutralization tank. The effluents collected from domestic open channel network including cooling water blow down, sand filters back wash, effluents from knockout drums & surface drain are collected in bulk effluent tank by an underground line of 350 mm dia. The strong / off-spec. effluent especially from urea plant (in case of upset condition) and partly from DM plant during regeneration of ion exchange units (after segregation) is collected in strong effluent storage tanks in ETP. Same is pumped to Off-Spec effluent pond having capacity of 40,000 m³ and is allowed for natural evaporation. Treated water from Bulk Effluent tank is being used for horticulture/ gardening/ green belt development purpose within the plant area. In existing plant, the domestic wastewater is partially treated in the existing ETP and flushing wastewater is discharged to soak pits. For nano fertilizer plant, ETP plant will be set up which will have total capacity of 35 KLD. Out of 35 KLD, MEE, Stripper and AFFD will have capacity of 25 KLD. Treated water will be reused for horticulture/ gardening/ green belt development purposes.

13. The PP reported that the power requirement after expansion will be 282 MWH in Phase-I and 305 MWH in Phase-II which will be sourced from Uttar Gujarat Vij Company Ltd. (UGVCL). Existing unit has DG set of capacity 2200 KVA & 860 KVA as power backup. No additional DG set is proposed. Stack (24 m for 2200 KVA & 22 m for 860 KVA) is provided as per CPCB norms to the existing DG sets.

14. Existing unit has 1 nos. of Natural gas-based boilers (80,000 Kg/hr). During normal course of operation of Nano Fertiliser Plant, surplus LP Steam available from Urea-Ammonia Plant will be used. However, during shutdown of Ammonia-Urea plant, there shall be requirement of LP steam for normal operation of Nano Fertilizer Plant. Therefore, a standby boiler of 6TPH natural gas based will be installed to meet steam requirement of Nano-Fertilizer plant. Stack of 35 m has been provided for existing Boilers and 30 m stack is proposed for new 6 TPH Boiler.

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

S. No.	Stack Attached	Fuel Used	APCM	Expected Pollutants
Existing Stacks				
1	Steam Boiler – 80000 kg/hr	Natural gas	35 m Stack height	PM, SO ₂ & NO _x
2	DG Set –2200 KW & 860 KW	HSD	24 m for 2200 KW & 22 m for 860 KW	PM, SO ₂ & NO _x
Proposed Stacks				
3	Steam Boiler (6 TPH)	Natural Gas	30 m stack Height	PM, SO ₂ & NO _x
Process Stacks / Vents				
Existing Stacks				
1	Prilling Tower – 4 Nos	-	Stack Height 68.5 m with Induced Draft, Vibropriller.	PM

2	Ammonia Scrubber	-	Venturi Water scrubber & 71 m stack Height	NH ₃
3	Ammonia Plant Primary Reformer	-	Stack Height of 40 m	PM, SO ₂ & NO _x

16. **Details of Solid Waste/ Hazardous Waste Generation and its Management:**

S. No.	Name of Waste	Source of Generation	Category No. (As per Sch-I&II 2016)	Quantity			Mode of Treatment & Disposal Method
				As per granted EC	Additional	Total after Expansion	
1	Discarded Barrels/ Containers / Liners contaminated with hazardous chemicals / wastes	Storage & Handling of Raw Materials	Sch-I/33.1	1500 Nos./year	15000 Nos. HDPE Drums	1500 Nos. Containers/Barrels /Year, & 15000 Nos. HDPE Drums	Collection, Storage, Decontamination and sale to authorized decontamination facility/ authorized recycler.
2	Bags contaminated with hazardous chemicals / wastes	Storage & Handling of Raw Materials	Sch-I/33.1	-	150 MT/Year HDPE Bags	150 MT/Year HDPE Bags	Collection, Storage, and sale to authorized recycler.
3	Used oil/ Spent Oil	Process	Sch-I/5.1	88.8 MTPA	0	88.8 MTPA	Collection, storage in MS drum, transportation and disposal by selling to registered Re-refiners.
4	ETP Sludge	In-house ETP	Sch-I/35.3	180 MTPA	0	180 MTPA	Collected in Drying Pits, stored in HDPE bags, Transported and disposed off to GPCB approved TSDF site.
5	Phosphoric acid Sludge	From solids settling in Phosphoric acid storage tank	-	-	150 MTPA	150 MTPA	This will be collected, dried, stored in HDPE bags and

							transported to IFFCO Kandla by road for use in DAP Manufacture.
6	Spent Catalyst	Ammonia/Urea Process	Sch -I/ 18.1	100 MTPA	0	100 MTPA	Collection, storage, transportation and disposal by selling to registered and authorized recyclers.
7	Spent Carbon	Ammonia/DM Plant Process	Sch-I/ 18.2	228 MTPA	0	228 MTPA	Collection, storage in HDPE bags, Transportation and disposal to authorized TSDF site / Co-processing at authorized cement industries.
8	Spent Resin	DM Plant Process	Sch-I/ 35.2	228 M ³ /Year	0	228 M ³ /Year	Collected and stored in HDPE bags, Transported and disposed off to authorized TSDF site / Co-processing at authorized cement industries.
9	MEE Sludge	In-house MEE & ETP (Proposed Nano Fertiliser plant)	Sch-I/35.3	0	91.25 MTPA	91.25 MTPA	Shall be Collected in Drying Pits, stored in HDPE bags, Transported and disposed off to GPCB approved TSDF site.

17. The budget earmarked towards Environmental Management Plan (EMP) is ₹ 932.9 crores (capital) and the Recurring cost (operation and maintenance) will be about ₹116 Crores per annum. Industry proposed to allocate Rs. 0.62 Crores @ 0.1% of total expansion cost towards CER.

18. The PP reported that Industry will maintain green area of 47.4266 Ha which is 49.65% of total plot area. As per MoEF&CC requirement, it is mandated to have 33% of green area exclusively for green belt thus, 33.43 Ha of area which is 35% of plot area is provided with green belt area having dense trees and rest area within green area is provided with shrubs, herbs and lawn.

19. The PP proposed to set up an Environment Management Cell (EMC) by engaging Director, Environment Health and safety officials - for the functioning of EMC.

20. The PP reported the following w.r.t carbon sequestration:

S. No.	Species	Green Weight of Tree above ground level	Green weight (including root) (Kg)	Dry Weight of tree (Kg)	Weight of carbon in the tree (Kg)	Weight of CO ₂ (Kg)	Weight of CO ₂ Sequestered in tree per year (Kg)	No of tree proposed	Weight of CO ₂ Sequestered in tree per year (Tonnes)
1	<i>Acacia senegal</i>	676	811.2	588.12	294.06	1078.11	107.81	1650	79.41
2	<i>Aegle marmelos</i>	784	940.8	682.08	341.04	1250.35	125.04	1840	102.71
3	<i>Albizia lebbek</i>	956.25	1147.5	831.94	415.97	1525.07	152.51	2430	165.44
4	<i>Azadirachta indica</i>	784	940.8	682.08	341.04	1250.35	125.04	2200	122.80
5	<i>Bauhinia racemose</i>	676	811.2	588.12	294.06	1078.11	107.81	3600	173.27
6	<i>Bauhinia variegata</i>	676	811.2	588.12	294.06	1078.11	107.81	2760	132.84
7	<i>Bauhinia purpurea</i>	676	811.2	588.12	294.06	1078.11	107.81	1200	57.76
8	<i>Bougainvillea spectabilis</i>	345.6	414.72	300.67	150.34	551.18	55.12	890	21.90
9	<i>Cassia fistula</i>	843.75	1012.5	734.06	367.03	1345.65	134.56	1650	99.12
10	<i>Dalbergia sissoo</i>	1152	1382.4	1002.24	501.12	1837.26	183.73	1850	151.74
11	<i>Delonix regia</i>	1152	1382.4	1002.24	501.12	1837.26	183.73	2800	229.66
12	<i>Ficus benghalensis</i>	1152	1382.4	1002.24	501.12	1837.26	183.73	3950	323.98
13	<i>Ficus racemose</i>	1216	1459.2	1057.92	528.96	1939.33	193.93	3200	277.05

14	<i>Ficus religiosa</i>	1088	1305.6	946.5 6	473.2 8	1735.1 9	173.52	3000	232.39
15	<i>Madhuca indica</i>	735	882	639.4 5	319.7 3	1172.2 1	117.22	3000	156.99
16	<i>Mangifera indica</i>	784	940.8	682.0 8	341.0 4	1250.3 5	125.04	1880	104.94
17	<i>Melia azedarach</i>	633.7 5	760.5	551.3 6	275.6 8	1010.7 3	101.07	1650	74.45
18	<i>Pongamia pinnata</i>	735	882	639.4 5	319.7 3	1172.2 1	117.22	1800	94.20
19	<i>Syzygium cumini</i>	1012. 5	1215	880.8 8	440.4 4	1614.7 8	161.48	1890	136.25
20	<i>Tamarindus indica</i>	980	1176	852.6 0	426.3 0	1562.9 4	156.29	2920	203.74
21	<i>Tectona grandis</i>	833	999.6	724.7 1	362.3 6	1328.5 0	132.85	3210	190.38
22	<i>Terminalia arjuna</i>	784	940.8	682.0 8	341.0 4	1250.3 5	125.04	1740	97.13
23	<i>Terminalia bellirica</i>	784	940.8	682.0 8	341.0 4	1250.3 5	125.04	1640	91.54
24	<i>Terminalia catappa</i>	14.4	17.28	12.53	6.26	22.97	2.30	1490	1.53
25	<i>Thevetia peruviana</i>	6.75	8.1	5.87	2.94	10.77	1.08	760	0.37
							Total	55000	3321.22 100

21. The PP submitted the disaster and Onsite and Offsite Emergency Plans in the EIA report.

22. The estimated project cost of new Nano Plant is Rs. 490 crores and additional Rs. 50 Crore for CDR in case of lean gas supply in ammonia plant. Total Employment will be 2000 persons during operation phase after expansion.

23. The PP reported that Public Hearing is exempted as the project is located in the industrial area i.e GIDC Kalol notified on 07.09.1993.

24. 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 of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested 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 inter-alia, deliberated on the Greenbelt development plan, Effluent treatment plant, DAP product and advised the PP to submit the following:

- Undertaking for planting during 1st year and 2nd Year
- Revised ETP flow diagram
- Revised block diagram of Nano DAP.

The PP submitted the above information/documents and the EAC found it to be satisfactory.

The EAC deliberated the Onsite and Offsite Emergency plans and also the various mitigation measures proposed during implementation 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, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, as amended from time to time.

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 Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance. The minutes of the meeting are available on PARIVESH.

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.

25. 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 “Expansion of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer and Nano Micronutrients of production capacity (Ammonia- 4,01,500 MTPA, Urea (100%)- 6,75,000, Diesel Exhaust Fluid (DEF) (32.5% Urea Solution) upto 4,01,538 (Equivalent to 1,30,500 MTPA Urea), Nano Fertilizers @ Nano Urea/Nano Micronutrients (Nano Zinc/ Nano Copper/ Nano Boron/ Nano Sulphur)/Nano DAP (Nano I + Nano II)- 100375 KLPA) located at Plot no. 712/846, 855, 856 of Saij, 17-37 of Dhanej, Kasturinagar, Kalol GIDC, District Gandhinagar, Gujarat by Indian Farmers Fertilizer Cooperative Limited (IFFCO)”** under the provisions of the EIA Notification 2006 and its subsequent amendments subject to the compliance of terms and conditions as under:-

A. Specific Conditions:

- (i) The PP shall develop Greenbelt over an area of at least, 16165.45 m² by planting 40,000(1st year) number of trees within a period of one year of grant of EC and 15,000 (2nd year) (2024). The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2m). The budget earmarked for the plantation shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the 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 the previous year.

- (ii) 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 Director- environment officials, 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.
- (iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP [₹932.9 crores (Capital cost) and ₹ 116 crores (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.
- (iv) The total freshwater requirement after expansion will be 10190 KLD (in Phase-I) and 10614 KLD (in Phase-II). Fresh water will be met by Sardar Sarovar Narmada Nigam Ltd. (SSNNL). The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining prior agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year
- (v) No banned chemicals shall be manufactured by the PP. No banned raw materials shall be used in the unit. The PP shall adhere to the notifications/guidelines of the Government in this regard.
- (vi) 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.
- (vii) The project proponent shall comply with the environment norms for Fertilizer as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 1607(E), dated 29.12.2017 under the provisions of the Environment (Protection) Rules, 1986.
- (viii) 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.
- (ix) 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.

- (x) The PP shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
- (xi) As committed by the PP, Zero Liquid Discharge shall be ensured. the domestic wastewater shall be partially treated in the existing ETP and flushing wastewater shall be discharged to soak pits. ETP plant shall be installed total capacity of 35 KLD. Out of 35 KLD, MEE, Stripper and AFFD will have capacity of 25 KLD. Treated water shall be reused for horticulture/ gardening/ green belt development purposes.
- (xii) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xiii) 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.
- (xiv) 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.
- (xv) Proper Ventilation with adequate air change cycle shall be made for healthy working environment for the workers. Work Zone monitoring should be done for VOC.
- (xvi) 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.
- (xvii) The unit shall make the arrangement for the protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xviii) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (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.
- (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.

- (xxi) The Plastic Waste Management (Amendment) Rules, 2022 shall be duly complied w.r.t Extended Producer Responsibility (EPR) target as a brand owner.
- (xxii) The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

B. General Conditions:

- (i) 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.
- (ii) The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
- (iii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- (iv) 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).
- (v) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- (vi) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- (vii) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZillaParishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- (viii) The project proponent shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional 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.

- (ix) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.
- (x) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <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.
- (xi) 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.
- (xii) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

26. 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.

27. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

28. Any appeal against this environmental clearance 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.

29. The above conditions shall 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, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

This issues with approval of the competent authority.

(Dr. M. Ramesh)
Scientist 'E'

Copy to:

1. The Principal Secretary, Forests & Environment Department, Government of Gujarat, Sachivalaya, 8th Floor, Gandhi Nagar - 382 010 (Gujarat).
2. The Deputy Director General of Forests (C) Ministry of Env., Forest and Climate Change, Integrated Regional Office, Gandhi Nagar, A-Wing – 407 & 409, Aranya Bhawan, Near CH-3 Circle, Sector-10A, Gandhi Nagar - 382010
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -32
4. The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhawan, Sector 10 A, Gandhi Nagar-382 043 (Gujarat)
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 Gandhinagar, Gujarat.
7. Guard File/Monitoring File/PARIVESH.

(Dr. M. Ramesh)

Scientist 'E'

Tel.: 011-20819338

Email: ramesh.motipalli@nic.in



ANNEXURE IC
EARLIER ENVIRONMENTAL CLEARANCE
(DATED 24.08.2021)

F.No. J-11011/60/2009-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan
Jorbagh Road, New Delhi - 110003

Dated: 24th August, 2021

To,

M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO)
Kasturinagar (PO), Kalol
District Gandhinagar, Gujarat – 382 423

Email: iffcofertilizer2020@gmail.com

Sub: Expansion of Fertilizer Plant by Installation of new Nano Urea Plant at Plot No. 712/846, 855, 856 of Saij, 17-37 of Dhanaj, Kasturinagar, Kalol, District Gandhinagar, Gujarat by M/s Indian Farmers Fertiliser Cooperative Limited- Environmental Clearance – regarding.

Sir,

This has reference to your proposal No. IA/GJJ/IND3/217176/2021 dated 30th July 2021, submitting addendum to the EIA/EMP report on the above subject matter.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for Expansion of Fertilizer Plant by Installation of new Nano Urea Plant by M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO) at Plot No. 712/846, 855, 856 of Saij, 17-37 of Dhanaj, Kasturinagar, Kalol, District Gandhinagar, Gujarat.

3. The details of products and capacity are as under:

S. No	Product	Unit	As per EC granted on 01/02/2021	Additional / Proposed	Total after Expansion
1.	Ammonia	MTPA	4,01,500	0	4,01,500
2.	Urea (100%) (Fertilizer Grade/Technical Grade)	MTPA	6,75,000 max or	0	6,75,000 max or
3.	Urea (100%) or & Diesel Exhaust Fluid (32.5% of Urea Solution)	MTPA	5,44,500 & 4,01,538 i.e., (Equivalent to 1,30,500 of 100% Urea) max or #	0	5,44,500 & 4,01,538 i.e., (Equivalent to 1,30,500 of 100% Urea) max or #

4.	Urea (100%) or & Diesel Exhaust Fluid (40% of Urea Solution)	MTPA	5,44,500 & 3,26,250 i.e., (Equivalent to 1,30,500 of 100% Urea) max #	0	5,44,500 & 3,26,250 i.e., (Equivalent to 1,30,500 of 100% Urea) max #
5.	Nano Fertilisers (Nano-Nitrogen (Urea) / Nano Zinc/Nano Copper*) (Nano-I + Nano-II)	KL / year	27375	36500	63875

Note: # Depending upon the requirement of urea fertilizer in the market, there shall be variation in quantity of DEF (32.5% and/or 40% urea Solution) production. The total urea production shall, however, be limited to 6,75,000 MTPA (Maximum) under all the above combinations.

** Phase I include supply of Rich gas and manufacturing unit of Nano Fertiliser products & Phase II include installation of CDR during supply of lean gas.

* Nano Nitrogen contains 40000 ppm (Min) of nitrogen, Nano Zinc contains 10000 ppm (Min) of Zinc and Nano copper contains 8000 ppm (Min) of copper.

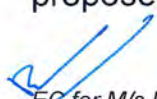
4. It is noted that the project proponent has proposed for enhancement of Nano Fertilizer production by installation of new Nano-Nitrogen (Nano Urea) Plant (Nano-II) of capacity 36500 KL per annum along with Bottle manufacturing and bottling unit besides auxiliary facilities. The plant will be established over area of 2.3491 Hectares in existing premises.

It is also noted that the manufacturing process of Nano Urea comprises of polymerization reaction of carbohydrate polymer with nucleation and attachment of nanocluster with amide/nitrate particles. No source of air emission/effluent generation/hazardous waste generation is involved in the production process. It is noted that the nano-fertilizer plant will pose an example of environmental sustainability and profitability for both farmers and government.

5. It is reported that the existing land area is 95.5158 ha and expansion is proposed within the existing land area. Industry has developed greenbelt in an area of 46.18 ha which will be increased to 46.6257 ha, covering 48.8% of the project area. The estimated project cost for expansion is Rs. 225 crores. Industry has spent Rs. 4811.8 lakhs towards environmental pollution control measures. The capital cost earmarked towards environmental pollution control measures in expansion is Rs. 115 lakhs and recurring cost (operation and maintenance) for proposed project will be about Rs. 10 lakhs per annum. The project will lead to employment for 1668 persons directly & indirectly after expansion. Industry proposed to allocate Rs. 62 lakhs towards Corporate Environment Responsibility.

6. It is reported that there are no National parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife sanctuary, Reserve forests within 10 km from the project site. Sabarmati river is flowing at 12.8 km (ESE) from the project site, and Narmada Canal is flowing at 2.8 km (S) from the project site.

7. It is noted that the freshwater requirement after expansion in Phase I including proposed nano fertilizer plant will be 10069 KLD and in Phase II with CDR and nano



fertilizer plant will be 10493 KLD. Water will be made available from existing infrastructure of Narmada Canal water supply system to IFFCO Kalol Unit.

Total effluent generation after expansion including domestic will be 1449.5 KLD in Phase I and 1509.5 KLD in Phase II. The wastewater from Ammonia and Urea plant is being treated in Hydrolyser, process condensate stripper, ETP, etc., Treated water from treatment schemes are being reused for Horticulture/gardening/green belt development. For Nano-I 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. Treated water from both the schemes will be reused for horticulture/gardening/ green belt development. Likewise, Effluent Treatment System (ETS) of capacity 1.5 KLD with neutralization tank for reactor wash/floor wash and STP (Capacity- 15 KLD) for domestic wastewater treatment will be installed in Nano-II unit. Treated water will be reused for horticulture/gardening/greenbelt development purposes within the plant premises. The plant will be based on Zero Liquid discharge system.

Total power requirement after expansion in Phase I and Phase II will be 224 MW/day and 247 MW/day respectively and same will be met from UGVCL power supply. Existing unit has two DG Sets of Capacity 2200 kW & 860 kW as standby during power failure. Stack Height of 24 m for 2200 KW & 22 m for 860 KW is provided as per CPCB norms.

Existing unit has Natural gas based 80 TPH steam boiler. No additional Boiler is proposed. 35 m stack height has been provided and particulate emission is within the statutory limit of 150 mg/Nm³. It is noted that the proposed Nano Urea Plant does not emit air pollutants from production process. Details of flue gas stacks, process gas stacks, solid waste/hazardous waste disposal of the entire complex are as per the plan provided in the EIA/EMP report and as deliberated in the EAC.

8. The project/activities are covered under Category 'A' of item 5(a) 'Chemical fertilizers' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.

9. The proposal has been submitted as per para 7(ii) of the EIA Notification, 2006 & its subsequent amendments requesting exemption from ToR and EIA report. Public hearing is exempted as the project site is located within the notified Industrial area. The project proponent has reported that there are no litigation pending against the proposal.

10. The Ministry had issued EC earlier vide letter no. J-11011/60/2009-IA-II(I) dated 1st February, 2021 in favour of M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO) for Expansion/Modernization of the Fertilizer Plant located at Kalol, Gujarat. It has been informed that construction and modification work as per EC is completed at the site after obtaining CTE from the GPCB. The certified compliance report has been forwarded by the Ministry's Regional Office at Bhopal vide letter dated 10th August, 2021.

11. The proposal was considered by the **Expert Appraisal Committee (Industry-3 Sector) in its meeting held on 10-11 August, 2021** in the Ministry through video conferencing, wherein the project proponent and the accredited consultant M/s

EQMS India Pvt Ltd presented the proposal and addendum to the EIA/EMP report.

The EAC, constituted under the provision of the EIA Notification, 2006 comprising Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with Addendum to EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent 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 Addendum to 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 project proponent.

The Committee noted that the proposal has been submitted by the project proponent as per the provisions contained in para 7 (ii) (a) of the EIA Notification seeking exemption from ToR and EIA report. Public hearing is exempted as the project is located in the notified Industrial area/Estate. The Committee noted that the addendum to the EIA/EMP report are in compliance of the activities proposed for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee noted that there is no anticipated air emission from Nano Urea Plant production process. The Committee noted that the project proponent allocated Rs. 36.5 lakhs towards Wild Life Conservation and submitted action plan in this regard.

The Committee noted that the Ministry had issued EC earlier vide letter dated 1st February, 2021 in favour of M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO) for Expansion/Modernization of the Fertilizer Plant located at Kalol, Gujarat. It is also noted that the construction and codification work as per EC granted has been completed at the site. The certified compliance report forwarded by the Ministry's Regional Office at Bhopal vide letter dated 10th August, 2021 after conducting site visit on 27.07.2021 found to be satisfactory. The Committee also noted that there is no additional land required and the proposed unit shall be established in the existing premises.

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 Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance as per para 7 (ii)(a) of the EIA Notification, 2006 exempting ToR and EIA report.

12. The environmental clearance granted 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 project proponent 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.

13. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate change hereby accords **Environmental clearance to the project for Expansion of Fertilizer Plant by Installation of New Nano Urea Plant by M/s Indian Farmers Fertiliser Cooperative Limited at Plot no. 712/846, 855, 856 of Saij,17-37 of Dhanaj, Kasturinagar, Kalol, District Gandhinagar, Gujarat**, under the provisions of the EIA Notification, 2006 subject to the compliance of terms and conditions as under:-

- (i) All the specific and general conditions stipulated in the environmental clearance dated 1st February, 2021 shall be complied in letter and spirit.
- (ii) The project proponent 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, MoEFCC in this regard.
- (iii) 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 addendum to the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iv) Total fresh water requirement shall not exceed 10069 KLD (in Phase I) and 10493 KLD (in Phase II). Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (v) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
- (vi) As proposed, at least Rs. 36.5 lakhs shall be earmarked for conservation plan and shall be implemented in coordination with State Forest & Wildlife Department/Local Village Administration.

14. 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.

15. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

16. Any appeal against this environmental clearance 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.

17. The above conditions shall 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, Hazardous and Other

Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

18. This issues with approval of the competent authority.

24/08/2021

(Dr. R. B. Lal)
Scientist 'E'/Additional Director
Tele-fax: 011-24695362
Email-rb.lal@nic.in

(डा. आर. बी. लाल)
(Dr. R. B. LAL)
वैज्ञानिक 'ई'/Scientist 'E'
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
Min. of Environment, Forest and Climate Change
भारत सरकार, नई दिल्ली
Govt. of India, New Delhi

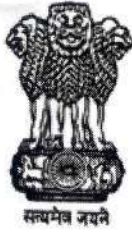
Copy to: -

1. The Deputy DGF (C), MoEF&CC Integrated Regional Office (Gujarat), E-5, Kendriya Paryavaran Bhawan, E-5 Arera Colony, Link Road-3, Ravishankar Nagar, Bhopal -16
2. The Secretary, Forests and Environment Department, Government of Gujarat, Block 14, 8th Floor, Sachivalaya, Gandhinagar (Gujarat) -10
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
4. The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10A, Gandhinagar (Gujarat) - 10
5. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi -110001
6. The District Collector, District Gandhinagar (Gujarat)
7. Guard File/Monitoring File/Website/Record File/Parivesh Portal

(Dr. R. B. Lal)
Scientist 'E'/Additional Director

ANNEXURE ID
EARLIER ENVIRONMENTAL CLEARANCE
(DATED 01.02.2021)

ANNEXURES



By Speed Post/Online

F.No. J-11011/60/2009-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan
Jorbagh Road, New Delhi - 110003

Dated: 1st February, 2021

To

M/s Indian Farmers Fertiliser Cooperative Limited
Kalol Unit, P.O. Kasturinagar
District Gandhinagar, Gujarat – 382 423

Email: iffcofertilizer2020@gmail.com

Sub: Expansion/Modernization of the Fertilizer Plant at Plot no. 712/846, 855, 856 of Saij, 17-37 of Dhanaj, Kasturinagar, Kalol, District Gandhinagar, Gujarat by M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO) - Environmental Clearance - regarding

Sir,

This has reference to your proposal No. IA/GJ/IND2/185904/2009 dated 14th December 2020 and further letter dated 12.01.2021 & E-Office Computer number 149352, submitting the EIA/EMP report on the above subject matter.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for Expansion/Modernization of the Fertilizer Plant by M/s Indian Farmers Fertiliser Cooperative Limited at Plot no. 712/846, 855, 856 of Saij, 17-37 of Dhanaj, Kasturinagar, Kalol, District Gandhinagar, Gujarat. Industry proposes to enhance the production of Urea from 6,02,250 MTPA to 6,75,000 MTPA, while the production of Ammonia plant will remain the same i.e., 4,01,500 MTPA. The unit also proposes to install Commercial-scale Nano Fertiliser Project having capacity of Nano-Nitrogen/Nano-Zinc/Nano-Copper of 27375 kL/year along with bottle manufacturing and bottling unit besides auxiliary facilities. The proposal has been bifurcated in two stages. Phase I - Enhance Urea production with Supply of Rich gas and installation of Commercial-scale Nano Fertiliser Project and Phase II - Enhance Urea production with Supply of lean gas with installation of Carbon dioxide Recovery Unit (CDR). The phase II will be implemented only when there will be supply of lean gas. In phase II, 200 MTPD of CO₂ shall be recovered from the flue gas through CDR for production of Urea.

3. The details of products and capacity are as under:

S. No.	Product	Unit	Quantity		
			Existing	Additional/ Proposed	After Modernization/ Expansion
1.	Ammonia	MTPA	4,01,500	0	4,01,500
2.	Urea (100%) (Fertilizer)	MTPA	6,02,250 max or	72,750	6,75,000 max or


EC for M/s Indian Farmers Fertiliser Cooperative Limited

	Grade/Technical Grade)				
3.	Urea (100%) or & Diesel Exhaust Fluid (32% of Urea Solution)	MTPA	5,44,500 & 1,77,690 i.e., (Equivalent to 57,750 of 100% Urea) max or	- & 2,23,848 (32.5% Urea solution) i.e., (72,750 of 100% Urea) or	5,44,500 & 4,01,538 i.e., (Equivalent to 1,30,500 of 100% Urea) max or #
4.	Urea (100%) or & Diesel Exhaust Fluid (40% of Urea Solution)	MTPA	5,44,500 & 1,44,375 i.e., (Equivalent to 57,750 of 100% Urea) max	- & 1,81,875 (40% Urea solution) i.e., (72,750 of 100% Urea)	5,44,500 & 3,26,250 i.e., (Equivalent to 1,30,500 of 100% Urea) max #
5.	Nano Fertilisers (Nano-Nitrogen/ Nano Zinc/Nano Copper*)	kL/year	0	27375	27375
<p>Note:</p> <p># Depending upon the requirement of urea fertilizer in the market, there shall be variation in quantity of DEF (32.5% and/or 40% urea Solution) production. The total urea production shall, however, be limited to 6,75,000 MTPA (Maximum) under all the above combinations.</p> <p>** Phase I include supply of Rich gas and new manufacturing unit of Nano Fertilizer products & Phase II include installation of CDR during supply of lean gas. Nano Nitrogen contains 40000 ppm (Min) of nitrogen, Nano Zinc contains 10000 ppm (Min) of Zinc and Nano copper contains 8000 ppm (Min) of copper.</p>					

4. The existing land area is 95.5158 ha and expansion is proposed within the existing land area. Industry has already developed greenbelt in an area of 45.71 ha which will be increased to 46.1756 ha i.e., 48.34% after expansion. The estimated project cost for expansion is Rs. 166.8 crores. Industry has already spent Rs. 4341.8 lakhs towards environmental pollution control measures. The capital cost earmarked towards environmental pollution control measures in expansion is Rs. 100 lakhs and recurring cost (operation and maintenance) will be about Rs. 1500 lakhs per annum. The project will provide employment for 1393 persons after expansion. Industry proposed to allocate Rs. 52 lakhs towards Corporate Environmental Responsibility.

5. There are no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife sanctuary within 10 km distance from the project site. Sabarmati river is flowing at 12.8 km (ESE) from the project site, and Narmada canal is flowing at 2.8 km (S) from the project site.

6. The water requirement after expansion in Phase I including nano fertilizer plant will be 9947 KLD and in Phase II with CDR and nano fertilizer plant will be 10371 KLD. Water will be available from existing infrastructure of Narmada Canal water supply system to IFFCO Kalol Unit.

Effluent of 1423 KLD in Phase I and 1483 KLD in Phase II from Ammonia and Urea plant will be treated in the ETP and 1 KLD of Industrial effluent and 9 KLD of Domestic effluent from proposed Nano plant will be treated in Effluent Treatment

System (ETS) cum neutralization tank and STP respectively. The treated water will be reused in Horticulture and plant will be based on Zero Liquid discharge system.

Power requirement after expansion in Phase I and Phase II will be 186 MW/day and 211 MW/day respectively and same will be met from UGVCL power supply. Existing unit has two no. of DG Sets of Capacity 2200 kW & 860 kW as standby during power failure. Stack Height of 24 m for 2200 KW & 22 m for 860 KW is provided as per CPCB norms. Existing unit has Natural gas based 80 TPH steam boiler. No additional Boiler is proposed. 35 m stack height has been provided for controlling the particulate emission within the statutory limit of 150 mg/Nm³.

No additional Stack is proposed in expansion and there shall be no gaseous emission from Nano Fertiliser Unit. There is generation of different kind of Industrial hazardous wastes from production process and other activities. Industrial hazardous wastes such as spent lube oil, spent catalyst are sold to recyclers. ETP sludge generated is disposed off at TSDF site, while other solid wastes are segregated in salable and non-salable waste. All waste is disposed as per The Hazardous & Other Waste (Management and Transboundary Movement) Amendment Rules, 2020.

7. The project/activities are covered under category A of item 5(a) 'Chemical fertilizers' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

8. The Standard Terms of Reference (ToR) was issued by the Ministry vide letter dated 6th November, 2020. Public hearing is exempted as the project site is located within the notified Industrial area. The project proponent has informed that there is no litigation pending against the proposal.

9. It was informed that the plant was established in the year 1975 to produce Ammonia and Urea. The Ministry had earlier granted environmental clearance vide letter dated 24th December, 2009 to the project for Expansion of Kalol Fertilizer unit. It was informed that the proposal envisaged expansion of Ammonia & Urea Project for 2400 MTPD Ammonia & 4200 MTPD Urea and Captive power plant of capacity 2x25 MW. The expansion was proposed to be carry out on 18 ha vacant lands available within the plant area, but the expansion work was not initiated because the Department of Fertilizer, GOI vide letter dated 9th May 2013 advised that the project work should proceed ahead only after approval of the Department of Fertilizer. However, single walled Ammonia Storage Tank was replaced with new Ammonia storage tank of double wall double integrity type considering safety aspects and as per one of the conditions of the environmental clearance. The unit has valid amended Consolidated Consent and Authorization (CC&A) from GPCB vide order dated 22.10.2019 for production of 4,01,500 MTPA of Ammonia, 6,02,250 MTPA of Urea (100%) Max or, 5,44,500 MTPA Urea & 1,77,690 MTPA of DEF (32.5% of urea solution) Max or, 5,44,500 MTPA Urea & 1,44,375 MTPA of DEF (40% of urea solution) Max for the existing project. The Ministry's Regional Office at Bhopal vide letter dated 2nd November, 2020 has forwarded the compliance status of the existing environmental clearance conditions.

10. The proposal was considered by the Expert Appraisal Committee (Industry-3) in its meetings held on 29-30 December, 2020 & 14-15 January, 2021 in the Ministry, wherein the project proponent and their accredited consultant M/s EQMS India Pvt Ltd presented the EIA/EMP report as per the ToR. The Committee found the EIA/EMP

report complying with the ToR and recommended the project for grant of environmental clearance.

11. The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given 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 report. 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 project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the activities/action plan and found to be addressing the issues in the study area. The Committee has suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory.

The EAC has deliberated the proposal and has made 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 Experts Members of the EAC have found the proposal in order and have recommended for grant of environmental clearance.

12. The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its 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 project proponent 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.

13. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for **Expansion/Modernization of the Fertilizer Plant by M/s Indian Farmers Fertiliser Cooperative Limited at Plot no. 712/846, 855, 856 of Saij,17-37 of Dhanaj, Kasturinagar, Kalol, District Ghandhinagar, Gujarat**, under the provisions of the EIA Notification, 2006, subject to the compliance of terms and conditions as under:-

- (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.

- (ii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development.
- (iii) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (iv) 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.
- (v) 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.
- (vi) Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (vii) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (viii) Safety and risk assessment studies shall be conducted and action plan and mitigation measures shall be properly implemented.
- (ix) Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (x) Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.99% with effective chillers/modern technology.
- (xi) Total fresh water requirement shall not exceed 10371 cum/day proposed to be met from existing water supply from Narmada canal to the IFFCO Kalol unit. Necessary permission in this regard shall be obtained from the concerned regulatory authority, and renewed from time to time.
- (xii) 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.
- (xiii) The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b)

Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

- (xiv) The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xv) The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.
- (xvi) A separate Environmental Management Cell (having qualified person 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.

13.1 The grant of environmental clearance is further subject to compliance of other general conditions as under:-

- (i) 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 to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- (ii) The energy source for lighting purpose shall be preferably LED based, or advance having preference in energy conservation and environment betterment.
- (iii) The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- (iv) The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- (v) 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 Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- (vi) The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and to utilize the same for process requirements.
- (vii) Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations

for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.

- (viii) 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.
- (ix) The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- (x) 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.
- (xi) 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.
- (xii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective 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.
- (xiii) 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 Regional Offices of MoEF&CC by e-mail.
- (xiv) 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.
- (xv) 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.
- (xvi) 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.

14. 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.

15. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

16. Any appeal against this environmental clearance 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.

17. The above conditions shall 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, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

18. This issues with approval of the competent authority.

P
01/02/2021

(Dr. R. B. Lal)

Scientist 'E'/Additional Director

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(डा. अरु बी लाल)
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(Dr. R. B. LAL)
वैज्ञानिक 'ई'/Scientist 'E'
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
Min. of Environment, Forest and Climate Change
भारत सरकार, नई दिल्ली
Govt. of India, New Delhi

Copy to: -

1. The Deputy DGF (C), MoEF&CC Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, E-5 Arera Colony, Link Road-3, Ravishankar Nagar, Bhopal -16
2. The Secretary, Forests and Environment Department, Government of Gujarat, Block 14, 8th Floor, Sachivalaya, Gandhinagar (Gujarat) -10
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
4. The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhawan, Sector-10A, Gandhinagar (Gujarat) - 10
5. The District Collector, District Gandhinagar (Gujarat)
6. Guard File/Monitoring File/Website/Record File/Parivesh Portal

(Dr. R. B. Lal)

Scientist 'E'/Additional Director

ANNEXURE I - b i

Tree Plantation Activities during 2023 - 24 & 2024 -25

ANNEXURES

Photographs of Green belt development - various activities
for plantation of 32,500 tree saplings during the year 2023 – 24 & 2024 – 25
at IFFCO – Kalol



Step – 1 : Some of the Photos showing identified area for tree plantation



Step - 2 : Some of the Photos showing site cleaning activities



Step - 3 : Some of the Photos showing marking for pits and digging activities



Step - 4 : Some of the Photos showing delivery of tree saplings at IFFCO Kalol



Step - 5 : Some of the Photos showing application of nutrients like vemicompost, farm yard manure and rice husk before plantation of tree saplings











Some of the Photos showing growth of tree saplings after the plantation











Some of the Photos showing growth of tree saplings after the plantation



Plantation of Tree Sapling as a part of Pre Monsoon activity 2024 at IFFCO Kalol

Sr. No.	GPS Location	Nos. and name of Tree Sapling
01	<p>Plot No 11 Bamboo Tree</p>  <p>Kalol, Gujarat, India 6G7F+C2W, Saij, Kalol, Gujarat 382725, India Lat 23.213439° Long 72.522459° 21/06/24 12:02 PM GMT +05:30</p>	 <p>Name of the tree saplings: Bamboo No. of Tree saplings planted 170 Location: Near northside boundary wall of IFFCO Kalol (towards ONGC fire station)</p>
02	<p>Bakkam Neem Opposite Nano Plant</p>  <p>Kalol, Gujarat, India Block-4, Iffco Cottages, Iffco, Kalol, Gujarat 382725, India Lat 23.209124° Long 72.529911° 21/06/24 10:47 AM GMT +05:30</p>	 <p>Name of the tree saplings: Neem No. of Tree saplings planted 580 Location: Opposite to Nano Fertilizer plant - II</p>

Sr. No.	GPS Location	Nos. and name of Tree Sapling
03	<p>Plot No 8 Nag 102 Bamboo</p>  <p>Kalol, Gujarat, India 6G7C+HMH, Iffco, Kalol, Gujarat 382725, India Lat 23.214716° Long 72.522146° 21/06/24 11:55 AM GMT +05:30</p>	 <p>Name of the tree saplings: Bamboo No. of Tree saplings planted 100 Location: Near State highway side boundary wall.</p>
04	<p>Kanjeer Nr. Rly Track Behind 66 KVA</p>  <p>Kalol, Gujarat, India Unnamed Road, Iffco, Kalol, Gujarat 382725, India Lat 23.2036° Long 72.526144° 21/06/24 01:45 PM GMT +05:30</p>	 <p>Name of the tree saplings: Karanj (Kanji) No. of Tree saplings planted 250 Location: Near Railway track towards 66 KVA Substation.</p>

Sr. No.	GPS Location	Nos. and name of Tree Sapling
05	<p>Plot No. 2 Bamboo Tree</p>  <p>Kalol, Gujarat, India 6060+3H Indian Farmers Fertilizer Cooperative, Iffco, Kalol, Gujarat 382725, India Lat 23.210023° Long 72.526534° 21/06/24 01:36 PM GMT +05:30</p>	 <p>Name of the tree saplings: Bamboo No. of Tree saplings planted 250 Location: Near SWM (Solid Waste Mgt) site – Road towards 66 KV substation</p>
06	<p>Plot No. 2 Bamboo Tree</p>  <p>Kalol, Gujarat, India Unnamed Road, Iffco, Kalol, Gujarat 382725, India Lat 23.203675° Long 72.526207° 21/06/24 01:44 PM GMT +05:30</p>	 <p>Name of the tree saplings: Bamboo No. of Tree saplings planted 200 Location: Backside area SWM site - Towards 66 KV substation</p>

Sr. No.	GPS Location	Nos. and name of Tree Sapling
07	<p>Plot No. 2 Bamboo Tree</p>  <p>Kalol, Gujarat, India Unnamed Road, Iffco, Kalol, Gujarat 382725, India Lat 23.205585° Long 72.525962° 21/06/24 01:40 PM GMT +05:30</p>	 <p>Name of the tree saplings: Bamboo No. of Tree saplings planted 250 Location: Opposite to 66 KV substation</p>
08	<p>Jambo Behind Nano Plant</p>  <p>Kalol, Gujarat, India 6G5G+878, Iffco, Kalol, Gujarat 382725, India Lat 23.207722° Long 72.525333° 21/06/24 03:23 PM GMT +05:30</p>	 <p>Name of the tree saplings: Jamun No. of Tree saplings planted 400 Location: Behind NFP-1, Near car parking area</p>

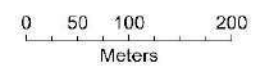
Sr. No.	GPS Location	Nos. and name of Tree Sapling
09	<p data-bbox="199 227 619 308">Neem Tree Behind Nano Plant</p> 	 <p data-bbox="1060 665 1501 698">Name of the tree saplings: Neem</p> <p data-bbox="1060 730 1501 763">No. of Tree saplings planted 300</p> <p data-bbox="1060 803 1711 836">Location: Behind NFP - 1, Near car parking area</p>
Total No. of tree saplings Planted:		2500 nos.

ANNEXURE I - b ii
Details of Tree Plantation with Geo Location

Annexure I b ii



AFFORESTATION PROJECT IFFCO PLANT KALOL, GUJARAT



Legend
□ Plantation Boundary

Survey Date : 01 Aug 2025
Coordinate System : WGS 1984 UTM Zone 43N



Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity	
2	Arjun sadar	<i>Terminalia arjuna</i>	45	
	Borsali	<i>Thespesia populnea</i>	1500	
	Green Bamboo	<i>Bambusa vulgaris</i>	674	
	Sindur red	<i>Bixa orellana</i>	350	
	Sinduer	<i>Bixa orellana</i>	730	
	Jamun	<i>Syzygium cumini</i>	477	
	Badam	<i>Terminalia catappa</i>	80	
	Malabery Neem	<i>Melia dubia</i>	455	
	Amla	<i>Phyllanthus emblica</i>	230	
	Bahido	<i>Bauhinia racemosa</i>	40	
	Shirish	<i>Albizia lebbek</i>	950	
	Kanji (karnj)	<i>Pongamia pinnata</i>	50	
	White Chandan	<i>Santalum album</i>	523	
		Total	6104	
2 Opposite to 66 KV Switch Yard	Easting	Northing	Longitude	Latitude
	246722.8884	2568313.171	72.525348	23.204491
	246710.42	2568351.417	72.52522	23.204834
	246693.7488	2568407.104	72.525048	23.205334
	246689.0268	2568424.362	72.524999	23.205489
	246682.5703	2568447.958	72.524932	23.205701
	246680.2426	2568455.934	72.524908	23.205773
	246711.367	2568476.113	72.525209	23.20596
	246733.8699	2568426.256	72.525437	23.205513
	246734.9146	2568423.941	72.525447	23.205493
	246740.9699	2568426.556	72.525506	23.205517
	246748.6685	2568429.88	72.525581	23.205548
	246768.1247	2568438.622	72.525769	23.20563
	246771.3973	2568431.629	72.525802	23.205567
	246778.0622	2568434.044	72.525867	23.20559
	246795.5055	2568397.105	72.526043	23.20526
	246832.7864	2568313.993	72.526421	23.204515
	246861.8587	2568249.008	72.526716	23.203933
	246864.0818	2568244.048	72.526738	23.203889
	246864.2528	2568240.799	72.526741	23.20386
	246863.4078	2568235.093	72.526733	23.203808
	246859.8065	2568231.393	72.526699	23.203774
	246774.9844	2568200.292	72.525876	23.20348
	246740.4001	2568277.517	72.525525	23.204172
246722.8884	2568313.171	72.525348	23.204491	

Plot Number	Common Name of Tree	Botanical Name of Tree		Quantity
5	Sindur	Bixa orellana		230
5 Besides of 66 KV Switch Yard	Easting	Northing	Longitude	Latitude
	246773.1467	2568194.744	72.525859	23.20343
	246786.5302	2568199.059	72.525989	23.203471
	246787.5918	2568199.289	72.525999	23.203473
	246789.1124	2568199.317	72.526014	23.203474
	246790.8626	2568198.973	72.526031	23.203471
	246792.4119	2568198.112	72.526046	23.203463
	246794.0473	2568195.731	72.526063	23.203442
	246800.5315	2568179.033	72.526129	23.203292
	246824.1979	2568120.689	72.52637	23.202769
	246810.2202	2568112.708	72.526234	23.202695
	246784.4429	2568169.597	72.525973	23.203205
	246773.1467	2568194.744	72.525859	23.20343

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
6	Sisam	Dalbergia sissoo	38
	Cassia Yellow	Cassia fistula	20
		Total	58

	Easting	Northing	Longitude	Latitude
6 Besides Farmer Trg. Hall	247375.6952	2568672.837	72.531662	23.207837
	247419.3016	2568643.426	72.532093	23.207578
	247416.0905	2568639.144	72.532062	23.207539
	247372.6126	2568666.827	72.531633	23.207782
	247372.6748	2568670.564	72.531633	23.207816
	247375.6952	2568672.837	72.531662	23.207837

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
8	Paras Piple	Ficus religiosa	1196
	Green Bamboo	Bambusa vulgaris	110
	Spathodia	Spathodea campanulata	80
		Total	1386

	Easting	Northing	Longitude	Latitude
8 North East direction Highway side Boundary area	246758.6311	2569168.008	72.525555	23.212211
	246734.2069	2569157.226	72.525319	23.212111
	246734.0082	2569157.664	72.525317	23.212114
	246732.7229	2569161.068	72.525303	23.212145
	246730.0829	2569165.295	72.525277	23.212182
	246728.8087	2569166.743	72.525264	23.212195
	246727.0166	2569168.203	72.525247	23.212208
	246725.8179	2569168.659	72.525235	23.212212
	246684.1029	2569186.522	72.524824	23.212367
	246682.6653	2569186.973	72.52481	23.212371
	246663.6629	2569195.199	72.524623	23.212442
	246663.0615	2569195.48	72.524618	23.212444
	246668.9388	2569204.304	72.524673	23.212525
	246670.8006	2569203.147	72.524692	23.212515
	246674.2327	2569208.137	72.524725	23.21256
	246669.1954	2569211.591	72.524675	23.212591
	246665.692	2569206.572	72.524641	23.212545
	246667.655	2569205.221	72.524661	23.212533
	246661.9247	2569196.201	72.524606	23.212451
	246647.48	2569204.993	72.524464	23.212528
	246632.4386	2569214.342	72.524315	23.21261
	246615.9746	2569224.575	72.524153	23.2127
	246629.5674	2569247.595	72.524282	23.21291
	246641.6007	2569240.353	72.524401	23.212846
	246661.8636	2569227.772	72.5246	23.212736
	246672.6152	2569221.117	72.524707	23.212677
	246698.4681	2569205.23	72.524962	23.212538
	246740.7748	2569179.241	72.525379	23.21231
246757.2617	2569169.192	72.525542	23.212222	
246758.5656	2569168.047	72.525555	23.212212	

	Easting	Northing	Longitude	Latitude
	246758.6311	2569168.008	72.525555	23.212211
	246618.4009	2569254.668	72.524172	23.212972
	246615.447	2569249.905	72.524144	23.212928
	246605.0895	2569256.747	72.524041	23.212988
	246600.8644	2569250.387	72.524001	23.21293
	246592.648	2569239.576	72.523923	23.212832
	246587.9159	2569241.521	72.523876	23.212848
	246541.2957	2569270.27	72.523416	23.213101
	246523.8074	2569281.043	72.523244	23.213195
	246523.1235	2569298.214	72.523234	23.21335
	246519.4713	2569302.905	72.523198	23.213392
	246519.2332	2569315.38	72.523193	23.213504
	246558.9758	2569290.783	72.523585	23.213288
	246599.047	2569266.26	72.523981	23.213073
	246618.4009	2569254.668	72.524172	23.212972

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
9	Mahudo	Madhuca longifolia	470
	Sisam	Dalbergia sissoo	400
	Green Bamboo	Bambusa vulgaris	95
		Total	965

	Easting	Northing	Longitude	Latitude
9 North West side boundary area	246290.7334	2569218.718	72.520978	23.212597
	246274.4074	2569211.543	72.52082	23.21253
	246256.9997	2569248.889	72.520644	23.212864
	246216.6142	2569242.474	72.520251	23.2128
	246197.728	2569277.871	72.52006	23.213116
	246164.113	2569352.822	72.51972	23.213788
	246169.6957	2569355.316	72.519774	23.213811
	246189.057	2569330.966	72.519967	23.213594
	246203.6671	2569315.287	72.520112	23.213455
	246226.7105	2569290.581	72.520341	23.213236
	246290.7334	2569218.718	72.520978	23.212597

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
10	Shirish	Albizia lebeck	690
	Green Bamboo	Bambusa vulgaris	120
	Kanji (kaeanj)	Pongamia pinnata	600
		Total	1410

	Easting	Northing	Longitude	Latitude
10 North side boundary area	246285.4599	2569251.319	72.520921	23.21289
	246296.8136	2569232.043	72.521035	23.212718
	246300.6045	2569224.809	72.521074	23.212653
	246295.9119	2569223.923	72.521028	23.212645
	246279.0134	2569242.36	72.52086	23.212808
	246238.8895	2569287.216	72.520461	23.213207
	246228.2977	2569297.514	72.520355	23.213298
	246207.9945	2569320.324	72.520153	23.213501
	246196.6743	2569331.918	72.520041	23.213604
	246175.2743	2569358.259	72.519828	23.213838
	246167.4375	2569371.376	72.519749	23.213956
	246157.3197	2569385.936	72.519648	23.214085
	246142.7287	2569400.203	72.519503	23.214212
	246184.3219	2569419.534	72.519906	23.214393
	246211.0887	2569373.938	72.520175	23.213985
	246218.7908	2569360.934	72.520252	23.213869
	246219.6	2569361.451	72.52026	23.213874
	246252.6251	2569307.102	72.520591	23.213389
	246283.6074	2569254.496	72.520903	23.212919
	246282.2865	2569253.845	72.52089	23.212913
246284.2754	2569250.483	72.52091	23.212883	
246285.4599	2569251.319	72.520921	23.21289	

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
11	Paras Piple	Ficus religiosa	320
	Spathodia	Spathodea campanulata	90
	Ranguni Badam	<i>Sterculia foetida</i>	715
	Green Bamboo	Bambusa vulgaris	125
		Total	1250

	Easting	Northing	Longitude	Latitude
11 North side ONGC Fire Station side boundary area	246519.4632	2569300.363	72.523198	23.213369
	246521.7341	2569298.345	72.52322	23.213351
	246522.183	2569282.024	72.523228	23.213204
	246516.4887	2569285.446	72.523171	23.213234
	246513.9402	2569286.023	72.523146	23.213239
	246511.4075	2569286.39	72.523122	23.213242
	246504.5749	2569284.084	72.523055	23.21322
	246471.4426	2569274.609	72.522733	23.213129
	246432.763	2569263.613	72.522358	23.213024
	246408.8684	2569256.594	72.522125	23.212957
	246366.8994	2569244.719	72.521718	23.212843
	246300.6045	2569224.809	72.521074	23.212653
	246296.8136	2569232.043	72.521035	23.212718
	246316.1391	2569243.601	72.521222	23.212825
	246335.0058	2569255.34	72.521404	23.212934
	246348.648	2569262.986	72.521536	23.213005
	246363.8392	2569272.698	72.521683	23.213095
	246388.3542	2569288.827	72.52192	23.213245
	246409.8324	2569302.396	72.522127	23.21337
	246432.0486	2569264.762	72.52235	23.213034
	246453.5941	2569277.495	72.522559	23.213152
246495.3184	2569302.572	72.522962	23.213385	
246513.2509	2569313.309	72.523135	23.213485	
246519.2327	2569315.38	72.523193	23.213504	
246519.4717	2569302.905	72.523198	23.213392	
246519.4632	2569300.363	72.523198	23.213369	

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
12	Sindur	Bixa orellana	1190
	Teak (Sagwan)	<i>Tectona grandis</i>	850
	Green Bamboo	Bambusa vulgaris	150
		Total	2190

	Easting	Northing	Longitude	Latitude
12 Near Loco shade side area	246259.9309	2569181.278	72.520684	23.212254
	246258.7653	2569187.33	72.520671	23.212309
	246259.2136	2569190.961	72.520675	23.212341
	246261.5896	2569196.116	72.520697	23.212388
	246265.2656	2569200.017	72.520733	23.212424
	246294.5845	2569213.6	72.521017	23.212551
	246300.6366	2569205.262	72.521077	23.212477
	246310.2302	2569189.481	72.521173	23.212336
	246319.1514	2569171.101	72.521264	23.212171
	246325.2931	2569156.307	72.521326	23.212039
	246328.2967	2569147.879	72.521357	23.211963
	246330.5382	2569140.93	72.52138	23.211901
	246334.4833	2569126.674	72.521421	23.211773
	246335.3799	2569122.191	72.52143	23.211733
	246337.1283	2569114.705	72.521449	23.211665
	246299.1572	2569099.956	72.52108	23.211526
	246259.9309	2569181.278	72.520684	23.212254
	246419.5148	2568860.518	72.522295	23.209384
	246427.7103	2568841.255	72.522379	23.209211
	246417.2032	2568837.193	72.522277	23.209173
	246408.4442	2568855.161	72.522188	23.209334
	246378.0528	2568922.079	72.52188	23.209933
	246373.3761	2568933.068	72.521833	23.210032
	246359.1452	2568961.501	72.521689	23.210286
	246354.4112	2568971.17	72.521641	23.210373
	246348.2693	2568985.108	72.521579	23.210497
246341.414	2569000.55	72.521509	23.210636	
246334.2699	2569016.071	72.521437	23.210775	

	Easting	Northing	Longitude	Latitude
	246330.6548	2569025.081	72.5214	23.210855
	246322.8795	2569042.152	72.521322	23.211008
	246312.3211	2569066.568	72.521214	23.211227
	246313.7462	2569066.96	72.521228	23.211231
	246314.3098	2569067.23	72.521234	23.211233
	246316.8651	2569067.23	72.521259	23.211234
	246319.9135	2569065.75	72.521289	23.211221
	246322.5137	2569063.105	72.521314	23.211197
	246324.6655	2569061.492	72.521336	23.211183
	246326.907	2569061.133	72.521358	23.21118
	246328.3864	2569060.326	72.521372	23.211173
	246329.9106	2569058.802	72.521387	23.21116
	246330.7176	2569056.784	72.521396	23.211142
	246332.6453	2569054.184	72.521415	23.211118
	246334.3488	2569053.736	72.521432	23.211115
	246335.9627	2569053.691	72.521447	23.211114
	246338.787	2569054.857	72.521475	23.211125
	246343.9873	2569043.156	72.521527	23.211021
	246347.753	2569034.056	72.521566	23.210939
	246351.4291	2569025.538	72.521603	23.210863
	246356.5397	2569014.33	72.521655	23.210762
	246363.847	2569000.074	72.521729	23.210635
	246369.5024	2568990.214	72.521785	23.210547
	246376.1304	2568979.677	72.521852	23.210453
	246384.1102	2568966.766	72.521932	23.210337
	246391.5072	2568954.213	72.522006	23.210225
	246400.0697	2568939.509	72.522092	23.210094
	246410.1565	2568917.183	72.522194	23.209894
	246406.3778	2568915.614	72.522158	23.209879
	246397.2006	2568911.804	72.522069	23.209843
	246397.9765	2568909.945	72.522077	23.209827
	246407.1164	2568887.767	72.52217	23.209628
	246419.5148	2568860.518	72.522295	23.209384

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
13	Kachnar	<i>Bauhinia variegata</i>	1000
	Spathodia	<i>Spathodea campanulata</i>	85
	Green Bamboo	<i>Bambusa vulgaris</i>	195
	Amla	<i>Phyllanthus emblica</i>	583
		Total	1863

	Easting	Northing	Longitude	Latitude
13 West side Boundary area	246239.4453	2569170.778	72.520485	23.212156
	246251.5939	2569176.016	72.520603	23.212205
	246253.8536	2569176.991	72.520625	23.212215
	246262.3993	2569158.148	72.520712	23.212046
	246298.5436	2569078.995	72.521078	23.211337
	246324.1808	2569023.097	72.521337	23.210837
	246366.4191	2568927.974	72.521766	23.209985
	246399.8007	2568851.871	72.522104	23.209303
	246412.97	2568821.832	72.522238	23.209034
	246423.5533	2568798.692	72.522345	23.208827
	246426.9798	2568792.252	72.52238	23.208769
	246427.3374	2568791.183	72.522383	23.208759
	246418.1352	2568787.09	72.522294	23.208721
	246420.6966	2568781.473	72.52232	23.208671
	246420.3055	2568781.308	72.522316	23.208669
	246420.2031	2568781.246	72.522315	23.208669
	246419.5609	2568780.857	72.522309	23.208665
	246420.3437	2568779.082	72.522317	23.208649
	246416.0094	2568777.385	72.522275	23.208633
	246413.9808	2568781.795	72.522254	23.208673
	246405.2976	2568800.675	72.522166	23.208842
	246354.0428	2568914.608	72.521647	23.209862
	246295.9344	2569042.578	72.521058	23.211008
	246270.4982	2569098.372	72.520801	23.211508
	246275.4483	2569106.222	72.520848	23.211579
	246274.4216	2569107.682	72.520837	23.211592
	246263.5427	2569117.37	72.52073	23.211678
246239.4453	2569170.778	72.520485	23.212156	

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
14	Bahido	Bauhinia racemosa	110
	Sisam	Dalbergia sissoo	151
	Mahudo	Madhuca longifolia	195
	Mango	Mangifera indica	10
		Total	466

	Easting	Northing	Longitude	Latitude
14 North side of Nano fertiliser Plant - I area	246788.6801	2568483.561	72.525962	23.206039
	246776.3729	2568514.559	72.525837	23.206317
	246935.3191	2568581.026	72.527378	23.206941
	246946.9206	2568554.211	72.527496	23.206701
	246788.6801	2568483.561	72.525962	23.206039

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
15	Neem	Azadirachta indica	2115
	Badam	Terminalia catappa	190
	Mahudo	Madhuca longifolia	71
		Total	2376

	Easting	Northing	Longitude	Latitude
15 South side Boundary area	247317.3283	2568550.655	72.531113	23.206725
	247327.3398	2568538.395	72.531213	23.206616
	247336.0462	2568529.858	72.531299	23.206541
	247341.0551	2568524.188	72.531349	23.20649
	247350.0583	2568513.763	72.531439	23.206398
	247355.1899	2568508.414	72.53149	23.20635
	247360.9938	2568500.06	72.531548	23.206276
	247364.6484	2568490.519	72.531585	23.20619
	247358.8122	2568486.637	72.531528	23.206154
	247355.1399	2568480.031	72.531494	23.206094
	247352.4936	2568473.158	72.531469	23.206031
	247347.5922	2568459.126	72.531424	23.205904
	247340.5363	2568450.15	72.531356	23.205822
	247335.8065	2568445.922	72.531311	23.205783
	247324.0232	2568439.614	72.531197	23.205724
247312.5116	2568434.823	72.531085	23.205679	
247293.157	2568429.089	72.530897	23.205625	

	Easting	Northing	Longitude	Latitude
	247280.2779	2568421.762	72.530772	23.205557
	247275.7167	2568419.294	72.530728	23.205534
	247261.3698	2568413.905	72.530589	23.205483
	247255.8761	2568419.739	72.530535	23.205535
	247256.3138	2568428.413	72.530537	23.205613
	247256.1622	2568441.978	72.530534	23.205735
	247260.7048	2568448.892	72.530577	23.205798
	247274.4655	2568452.296	72.530711	23.205831
	247260.4607	2568480.889	72.530569	23.206087
	247244.0951	2568515.69	72.530404	23.206399
	247317.3283	2568550.655	72.531113	23.206725

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
16	Neem	Azadirachta indica	100
	Badam	Terminalia catappa	102
		Total	202

	Easting	Northing	Longitude	Latitude
16 Opposite to Nana fertiliser Plant I & II	247288.5881	2568554.273	72.530832	23.206754
	247232.6906	2568527.305	72.53029	23.206502
	247229.8186	2568527.935	72.530262	23.206507
	247228.9781	2568529.336	72.530254	23.20652
	247230.9394	2568532.348	72.530272	23.206547
	247236.8934	2568536.551	72.53033	23.206586
	247260.2891	2568572.835	72.530552	23.206917
	247263.4412	2568574.937	72.530583	23.206936
	247288.5881	2568554.273	72.530832	23.206754

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
17	Neem	Azadirachta indica	285
	Badam	Terminalia catappa	283
		Total	568

	Easting	Northing	Longitude	Latitude
17 Opposite to Nana fertiliser Plant I & II	247227.3139	2568524.852	72.530238	23.206479
	247184.5606	2568506.211	72.529824	23.206304
	247148.1348	2568559.397	72.529459	23.206778
	247145.5696	2568566.921	72.529433	23.206846
	247147.1087	2568585.048	72.529445	23.20701
	247149.1609	2568587.101	72.529465	23.207029
	247151.8795	2568584.935	72.529492	23.207009
	247179.4302	2568560.594	72.529765	23.206794
	247184.4282	2568555.744	72.529814	23.206751
	247186.3895	2568555.954	72.529834	23.206753
	247188.4208	2568559.176	72.529853	23.206783
	247190.3121	2568561.347	72.529871	23.206802
	247220.9227	2568532.768	72.530175	23.206549
	247223.7245	2568533.118	72.530202	23.206553
	247226.2462	2568529.966	72.530227	23.206525
247227.3139	2568524.852	72.530238	23.206479	

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
18	Paras piple	Ficus religiosa	235
	Mahudo	Madhuca longifolia	90
	Kanji (karnj)	Pongamia pinnata	110
		Total	435

	Easting	Northing	Longitude	Latitude
18 West side of Silo area	246593.3014	2568718.253	72.524016	23.208127
	246601.0766	2568700.321	72.524095	23.207966
	246636.9967	2568620.812	72.524459	23.207254
	246653.6628	2568583.472	72.524628	23.20692
	246648.0271	2568581.046	72.524573	23.206897
	246647.6745	2568580.917	72.52457	23.206896
	246647.3455	2568580.952	72.524566	23.206896
	246645.5239	2568581.446	72.524548	23.2069

	Easting	Northing	Longitude	Latitude
	246642.0336	2568582.386	72.524514	23.206908
	246640.7644	2568582.645	72.524502	23.20691
	246639.9182	2568582.75	72.524493	23.206911
	246639.2484	2568582.539	72.524487	23.206909
	246630.3626	2568602.775	72.524397	23.20709
	246611.345	2568646.086	72.524204	23.207478
	246591.9644	2568690.223	72.524007	23.207874
	246588.2093	2568698.112	72.523969	23.207944
	246587.7948	2568699.044	72.523965	23.207953
	246581.3023	2568713.232	72.523899	23.20808
	246581.2895	2568713.379	72.523899	23.208081
	246593.3014	2568718.253	72.524016	23.208127

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
19	Paras piple	Ficus religiosa	309
	Kanji (karnj)	Pongamia pinnata	100
	Bahido	Bauhinia racemosa	116
		Total	525

	Easting	Northing	Longitude	Latitude
19 Back side of Medical Oxygen Plant	246640.303	2568564.71	72.5245	23.206748
	246656.8341	2568571.925	72.52466	23.206816
	246665.3383	2568553.339	72.524747	23.20665
	246681.3193	2568517.475	72.524909	23.206328
	246693.2262	2568494.264	72.525029	23.206121
	246699.0219	2568480.922	72.525087	23.206001
	246699.7104	2568477.479	72.525095	23.20597
	246699.1653	2568475.672	72.52509	23.205954
	246698.0464	2568473.921	72.525079	23.205938
	246696.4396	2568472.028	72.525064	23.205921
	246695.5297	2568471.147	72.525055	23.205912
	246692.8532	2568468.556	72.525029	23.205889
	246688.8078	2568465.4	72.52499	23.20586
	246683.299	2568461.728	72.524937	23.205826
	246680.5447	2568460.465	72.52491	23.205814
	246674.9762	2568477.361	72.524853	23.205965
246664.9595	2568507.131	72.524751	23.206233	

	Easting	Northing	Longitude	Latitude
	246658.5003	2568522.771	72.524685	23.206373
	246648.4985	2568546.988	72.524583	23.20659
	246640.303	2568564.71	72.5245	23.206748

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
20	Badam	<i>Terminalia catappa</i>	80
	Kanji (karnj)	<i>Pongamia pinnata</i>	105
	Mahudo	<i>Madhuca longifolia</i>	71
		Total	256

	Easting	Northing	Longitude	Latitude
20 Opposite to Solid Waste Management Site	246753.0786	2568532.978	72.525607	23.206479
	246766.8079	2568539.633	72.52574	23.206542
	246774.2328	2568519.95	72.525815	23.206365
	246789.2229	2568482.194	72.525968	23.206027
	246779.9837	2568477.774	72.525878	23.205985
	246771.61	2568473.768	72.525797	23.205948
	246749.6702	2568523.884	72.525575	23.206397
	246748.3754	2568526.724	72.525562	23.206422
	246754.7817	2568529.377	72.525624	23.206447
	246753.0786	2568532.978	72.525607	23.206479

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
22	Arjun Sadar	Terminalia arjuna	250
	Spathodia	Spathodea campanulata	130
	Sisam	Dalbergia sissoo	310
	Baniyan Tree (Vad)	<i>Ficus benghalensis</i>	3
	Mahudo	Madhuca longifolia	345
	Bahido	Bauhinia racemosa	224
	Green Bamboo	Bambusa vulgaris	200
			Total

	Easting	Northing	Longitude	Latitude
22 Backside of P&A Building	247010.1638	2568899.406	72.528056	23.209826
	247035.5832	2568929.747	72.528299	23.210103
	247054.4125	2568952.297	72.528479	23.21031
	247059.3003	2568958.579	72.528526	23.210367
	247059.2101	2568959.257	72.528525	23.210373
	247047.0882	2568968.945	72.528405	23.210459
	247026.4711	2568985.054	72.528201	23.210601
	247025.9846	2568985.215	72.528196	23.210603
	247025.4776	2568985.127	72.528191	23.210602
	247017.5475	2568975.715	72.528115	23.210516
	246999.0194	2568953.724	72.527938	23.210314
	246990.4927	2568944.152	72.527856	23.210227
	246989.923	2568944.207	72.527851	23.210227
	246985.4524	2568942.724	72.527807	23.210213
	246982.8633	2568948.747	72.527781	23.210267
	246975.2398	2568945.651	72.527707	23.210238
	246962.8218	2568976.583	72.527581	23.210515
	246962.7322	2568977.928	72.52758	23.210527
	246963.4494	2568983.084	72.527586	23.210574
	246967.9325	2568996.533	72.527627	23.210696
246970.5326	2569001.643	72.527652	23.210742	
246974.2535	2569007.561	72.527687	23.210796	
246980.1711	2569016.303	72.527744	23.210876	
246979.9469	2569017.603	72.527741	23.210888	
246979.2296	2569018.589	72.527734	23.210897	

Easting	Northing	Longitude	Latitude
246973.3121	2569022.489	72.527676	23.210931
246971.2051	2569024.358	72.527655	23.210947
246981.2918	2569041.94	72.52775	23.211108
247032.216	2569010.979	72.528253	23.210836
247096.0989	2568971.429	72.528883	23.210489
247105.784	2568965.177	72.528979	23.210434
247096.5966	2568954.443	72.528891	23.210336
247085.5787	2568943.075	72.528785	23.210231
247074.7626	2568930.887	72.528681	23.21012
247055.9486	2568910.136	72.528501	23.20993
247040.0247	2568894.941	72.528348	23.20979
247037.7214	2568892.637	72.528326	23.209769
247035.6295	2568893.871	72.528305	23.20978
247030.7912	2568897.305	72.528258	23.20981
247026.3109	2568893.491	72.528214	23.209775
247024.3007	2568893.44	72.528195	23.209774
247020.4481	2568893.02	72.528157	23.20977
247013.5135	2568896.172	72.528089	23.209797
247010.1638	2568899.406	72.528056	23.209826
247006.665	2568903.257	72.528021	23.20986
247002.242	2568910.298	72.527977	23.209923
247002.973	2568915.124	72.527983	23.209967
247003.1602	2568916.727	72.527985	23.209981
247003.2534	2568919.067	72.527985	23.210002
247003.2143	2568921.406	72.527984	23.210023
247002.9791	2568923.921	72.527982	23.210046
247002.5678	2568926.375	72.527977	23.210068
247002.1688	2568928.626	72.527973	23.210088
247001.8719	2568929.838	72.52797	23.210099
247000.3981	2568934.29	72.527955	23.210139
246999.2664	2568936.766	72.527943	23.210161
246998.1999	2568938.769	72.527932	23.210179
247005.3656	2568946.502	72.528001	23.21025
247006.7504	2568945.817	72.528015	23.210244
247021.6273	2568933.396	72.528162	23.210134
247025.3155	2568930.552	72.528199	23.210109

	Easting	Northing	Longitude	Latitude
	247026.8414	2568927.831	72.528214	23.210085
	247026.8833	2568925.759	72.528215	23.210066
	247026.4813	2568925.144	72.528211	23.210061
	247025.2049	2568923.192	72.528199	23.210043
	247006.665	2568903.257	72.528021	23.20986

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
23	Sisam	Dalbergia sissoo	54
	Kanji(Karnj)	Pongamia pinnata	30
	Bahido	Bauhinia racemosa	33
		Total	117

	Easting	Northing	Longitude	Latitude
23 Near Southside boundary wall	247398.2296	2568548.863	72.531903	23.206722
	247398.4945	2568553.67	72.531905	23.206765
	247397.0357	2568563.473	72.531889	23.206853
	247393.647	2568570.887	72.531855	23.20692
	247392.8324	2568572.202	72.531846	23.206932
	247386.8899	2568581.801	72.531787	23.207017
	247415.7896	2568594.772	72.532067	23.207139
	247431.6549	2568574.368	72.532225	23.206957
	247434.7482	2568568.809	72.532256	23.206907
	247437.0345	2568564.909	72.532279	23.206872
	247439.4553	2568560.201	72.532304	23.20683
	247440.9796	2568555.449	72.532319	23.206788
	247442.2983	2568551.574	72.532333	23.206753
	247442.8399	2568543.747	72.532339	23.206682
	247442.5632	2568533.988	72.532338	23.206594
	247442.282	2568531.025	72.532336	23.206567
	247419.5956	2568525.727	72.532115	23.206516
	247414.7988	2568525.503	72.532069	23.206513
	247410.6744	2568526.669	72.532028	23.206523
	247407.1328	2568529.134	72.531993	23.206545
	247403.4568	2568533.797	72.531957	23.206587
	247399.4221	2568541.507	72.531916	23.206656
	247398.486	2568546.769	72.531906	23.206703
247398.2296	2568548.863	72.531903	23.206722	

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
25	Green Bamboo	Bambusa vulgaris	69
	Paras piple	Ficus religiosa	100
	Total		169

	Easting	Northing	Longitude	Latitude
25 Near R&D laboratory area	246638.4029	2569184.694	72.524379	23.212343
	246638.3718	2569185.576	72.524378	23.212351
	246638.6383	2569186.7	72.524381	23.212361
	246639.666	2569188.147	72.52439	23.212375
	246640.452	2569188.79	72.524398	23.212381
	246641.4592	2569186.198	72.524408	23.212357
	246648.5193	2569170.236	72.52448	23.212214
	246654.0038	2569157.857	72.524535	23.212103
	246656.8913	2569159.073	72.524563	23.212115
	246675.0933	2569120.59	72.524747	23.21177
	246668.2959	2569117.241	72.524682	23.211739
	246662.9488	2569129.277	72.524627	23.211847
	246644.2368	2569170.938	72.524438	23.21222
	246639.2749	2569181.796	72.524388	23.212317
	246638.4029	2569184.694	72.524379	23.212343
	246698.9368	2569169.816	72.524972	23.212218
	246712.8738	2569163.757	72.525109	23.212166
	246721.5766	2569160.057	72.525195	23.212134
	246722.6617	2569159.144	72.525206	23.212126
	246723.5956	2569157.678	72.525215	23.212113
	246719.8095	2569156.312	72.525178	23.2121
	246705.5452	2569148.664	72.52504	23.212028
	246696.4163	2569143.388	72.524952	23.211979
246686.5876	2569163.688	72.524853	23.212161	
246698.9368	2569169.816	72.524972	23.212218	

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
26	Paras piple	Ficus religiosa	174
	Green Bamboo	Bambusa vulgaris	62
	Spathodia	Spathodea campanulata	20
		Total	256

	Easting	Northing	Longitude	Latitude
26 Near Fire Water reservoir area	246734.9426	2569155.608	72.525326	23.212096
	246760.1678	2569167.111	72.52557	23.212203
	246769.8442	2569161.457	72.525666	23.212154
	246776.8082	2569145.077	72.525737	23.212007
	246767.7301	2569141.359	72.525649	23.211972
	246745.9589	2569131.369	72.525438	23.211879
	246734.9426	2569155.608	72.525326	23.212096

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
27	Teak (Sagwan)	Tectona grandis	150
	Badam	Terminalia catappa	45
	Mahudo	Madhuca longifolia	40
	Paras piple	Ficus religiosa	250
	Amla	Phyllanthus emblica	375
	Baniyan tree (vad)	Ficus benghalensis	2
	Cassia (kasid)	Cassia fistula	246
		Total	1108

	Easting	Northing	Longitude	Latitude
27 Near railway track Ammonia rail gantry area	246529.5962	2568767.987	72.523386	23.208566
	246541.3921	2568773.43	72.5235	23.208617
	246551.4914	2568750.649	72.523602	23.208413
	246567.8239	2568713.879	72.523768	23.208083
	246579.5147	2568687.211	72.523886	23.207845
	246568.075	2568682.951	72.523775	23.207804
	246566.7932	2568685.774	72.523762	23.20783
	246554.6337	2568713.396	72.523639	23.208077
	246535.7256	2568755.302	72.523447	23.208452
	246529.5962	2568767.987	72.523386	23.208566
	246383.3287	2569094.742	72.521903	23.211492
	246391.6545	2569098.486	72.521984	23.211527

	Easting	Northing	Longitude	Latitude
	246416.0637	2569042.342	72.522231	23.211024
	246439.8236	2568987.599	72.522472	23.210534
	246447.75	2568970.653	72.522553	23.210382
	246452.8914	2568971.356	72.522603	23.210389
	246464.465	2568946.428	72.52272	23.210166
	246451.4905	2568941.632	72.522594	23.210121
	246427.5001	2568994.098	72.522351	23.210591
	246383.3287	2569094.742	72.521903	23.211492

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
28	Mango Kesar	Mangifera indica	20
	Mahudo	Madhuca longifolia	125
	Amla	Phyllanthus emblica	75
	Bahodo	Bauhinia racemosa	293
	Spathodia	Spathodea campanulata	100
		Total	613

	Easting	Northing	Longitude	Latitude
28 Backside of Guest House	247326.0006	2568771.029	72.531161	23.208716
	247335.6966	2568787.014	72.531253	23.208861
	247390.27	2568761.928	72.53179	23.208643
	247406.7557	2568754.229	72.531952	23.208576
	247412.8315	2568751.496	72.532012	23.208553
	247385.0877	2568711.06	72.531748	23.208183
	247381.5722	2568713.342	72.531713	23.208204
	247351.325	2568734.357	72.531414	23.208389
	247332.9982	2568745.299	72.531234	23.208485
	247326.7904	2568749.122	72.531172	23.208518
	247326.4548	2568749.405	72.531169	23.208521
	247326.9718	2568750.18	72.531174	23.208528
	247326.2315	2568750.615	72.531167	23.208531
	247331.113	2568758.206	72.531213	23.208601
	247327.3866	2568760.651	72.531176	23.208622
	247332.1662	2568767.555	72.531222	23.208685
247326.0006	2568771.029	72.531161	23.208716	

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
29	Spathodia	Spathodea campanulata	53
	Kanji (karnaj)	Pongamia pinnata	93
	Bahido	Bauhinia racemosa	100
	Sisam	Dalbergia sissoo	47
		Total	293

	Easting	Northing	Longitude	Latitude
29 Southside Near Kishan Awash area	247406.9499	2568622.255	72.531976	23.207385
	247385.4889	2568637.433	72.531764	23.207519
	247361.3595	2568656.771	72.531525	23.20769
	247366.2949	2568664.704	72.531572	23.207762
	247430.0982	2568625.633	72.532201	23.207419
	247435.2323	2568621.69	72.532252	23.207385
	247426.123	2568615.056	72.532164	23.207323
	247419.6746	2568611.533	72.532102	23.207291
	247419.2833	2568611.319	72.532098	23.207289
	247418.5412	2568611.726	72.532091	23.207292
	247406.9499	2568622.255	72.531976	23.207385

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
30	Singapur Cherry	<i>Muntingia calabura</i>	1580
	Malabery Neem	Melia dubia	1025
	White chandan	Santalum album	677
		Total	3282

	Easting	Northing	Longitude	Latitude
30 North side Near Panchvati area	246477.4464	2569177.019	72.522808	23.212249
	246475.9671	2569176.301	72.522794	23.212243
	246473.7256	2569175.763	72.522772	23.212237
	246470.9909	2569174.329	72.522746	23.212224
	246467.6287	2569170.384	72.522713	23.212188
	246466.1493	2569166.17	72.5227	23.21215
	246465.6561	2569159.938	72.522696	23.212093
	246463.9078	2569154.828	72.52268	23.212047
	246460.949	2569150.614	72.522652	23.212008
	246452.8796	2569147.879	72.522573	23.211982
	246440.8203	2569139.81	72.522457	23.211908
	246427.0126	2569131.157	72.522323	23.211828
	246412.9494	2569126.587	72.522187	23.211784
	246408.0282	2569124.402	72.522139	23.211764
	246403.7682	2569121.188	72.522098	23.211734
	246402.2257	2569121.886	72.522083	23.21174
	246400.7751	2569123.447	72.522069	23.211754
	246398.8654	2569125.779	72.52205	23.211775
	246397.3046	2569127.872	72.522034	23.211793
	246389.2208	2569125.778	72.521955	23.211773
	246375.3808	2569142.716	72.521817	23.211924
	246354.1478	2569168.546	72.521606	23.212154
	246321.751	2569209.37	72.521283	23.212517
	246314.418	2569219.001	72.521209	23.212603
	246339.7006	2569226.772	72.521455	23.212677
	246373.5751	2569236.105	72.521784	23.212766
	246409.0357	2569246.191	72.522129	23.212863
	246452.7899	2569258.475	72.522554	23.212981
	246486.9056	2569266.769	72.522886	23.213061
	246498.6511	2569269.593	72.523	23.213088

	Easting	Northing	Longitude	Latitude
	246508.3344	2569271.027	72.523094	23.213102
	246511.8311	2569270.445	72.523128	23.213098
	246514.8796	2569269.503	72.523158	23.21309
	246518.5108	2569267.575	72.523194	23.213073
	246522.6352	2569265.11	72.523235	23.213051
	246528.3286	2569260.716	72.523291	23.213012
	246534.6945	2569255.068	72.523354	23.212962
	246538.0567	2569251.93	72.523388	23.212935
	246547.7042	2569244.138	72.523483	23.212866
	246565.4641	2569230.768	72.523659	23.212748
	246559.611	2569222.677	72.523603	23.212674
	246567.6446	2569216.968	72.523682	23.212624
	246573.4115	2569224.054	72.523737	23.212688
	246581.226	2569219.337	72.523815	23.212647
	246600.8925	2569204.971	72.524009	23.212521
	246618.6779	2569189.922	72.524185	23.212387
	246614.8004	2569186.892	72.524148	23.212359
	246557.4823	2569157.833	72.523593	23.212088
	246551.1276	2569155.549	72.523531	23.212067
	246547.4262	2569161.463	72.523494	23.21212
	246541.1052	2569158.459	72.523433	23.212092
	246544.9606	2569151.959	72.523472	23.212033
	246523.3973	2569141.962	72.523263	23.21194
	246519.3178	2569141.065	72.523223	23.211931
	246515.7313	2569141.603	72.523188	23.211936
	246513.176	2569142.858	72.523163	23.211946
	246509.2758	2569144.92	72.523124	23.211964
	246502.2823	2569150.569	72.523055	23.212014
	246489.2368	2569164.152	72.522926	23.212135
	246484.171	2569170.922	72.522875	23.212195
	246484.9851	2569174.189	72.522882	23.212225
	246484.0383	2569176.283	72.522873	23.212244
	246482.0012	2569177.89	72.522853	23.212258
	246481.1691	2569178.78	72.522844	23.212266
	246479.9569	2569179.126	72.522832	23.212269
	246477.4464	2569177.019	72.522808	23.212249

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
31	Kanji (karanj)	Pongamia pinnata	262
	Bahido	Bauhinia racemosa	124
	Mahudo	Madhuca longifolia	43
	Shirish	Albizia lebbeck	135
	Mango Kesar	Mangifera indica	35
	Badam	<i>Terminalia catappa</i>	45
	Sindur	Bixa orellana	20
		Total	664

	Easting	Northing	Longitude	Latitude
31 Near Union Office area	246918.5807	2569077.602	72.527132	23.21142
	246913.6394	2569069.392	72.527085	23.211345
	246840.5844	2569115.84	72.526364	23.211753
	246810.1765	2569115.384	72.526067	23.211744
	246804.6271	2569126.863	72.526011	23.211847
	246804.0189	2569129.523	72.526005	23.211871
	246804.475	2569130.892	72.526009	23.211883
	246815.4219	2569138.874	72.526115	23.211957
	246918.5807	2569077.602	72.527132	23.21142

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
32	Spathodia	Spathodea campanulata	172
	Singapuri Cherry	Muntingia calabura	220
	Mango Kesar	Mangifera indica	61
	Badam	Terminalia catappa	102
	Paras piple	Ficus religiosa	17
		Total	572

	Easting	Northing	Longitude	Latitude
32 Near GET Hostel	247324.138	2568688.817	72.531156	23.207973
	247326.4128	2568692.133	72.531178	23.208004
	247339.1238	2568682.306	72.531304	23.207917
	247358.1488	2568667.851	72.531492	23.207789
	247325.5437	2568613.977	72.531183	23.207298

	Easting	Northing	Longitude	Latitude
	247316.6238	2568618.913	72.531095	23.207341
	247293.5362	2568633.191	72.530867	23.207467
	247279.9579	2568641.719	72.530733	23.207542
	247255.6478	2568657.204	72.530493	23.207678
	247262.1055	2568667.868	72.530554	23.207775
	247298.0092	2568644.118	72.530909	23.207566
	247304.35	2568639.7	72.530971	23.207527
	247306.0715	2568638.638	72.530988	23.207518
	247310.7195	2568635.97	72.531034	23.207494
	247314.5928	2568634.248	72.531072	23.207479
	247318.8965	2568632.871	72.531115	23.207468
	247320.245	2568632.785	72.531128	23.207467
	247321.5648	2568633.014	72.531141	23.207469
	247322.8846	2568633.99	72.531153	23.207478
	247325.9545	2568639.126	72.531182	23.207525
	247346.0384	2568672.781	72.531373	23.207832
	247345.339	2568673.293	72.531366	23.207837
	247324.138	2568688.817	72.531156	23.207973
	247357.036	2568679.67	72.531479	23.207896
	247356.5557	2568679.059	72.531475	23.20789
	247353.5662	2568681.084	72.531445	23.207908
	247365.2646	2568698.511	72.531556	23.208067
	247365.6345	2568699.062	72.53156	23.208072
	247373.5246	2568693.61	72.531638	23.208024
	247372.377	2568691.832	72.531627	23.208008
	247367.7449	2568685.463	72.531583	23.20795
	247366.2992	2568683.475	72.531569	23.207932
	247357.036	2568679.67	72.531479	23.207896
	247256.5766	2568673.773	72.530499	23.207827
	247248.3811	2568659.693	72.530422	23.207699
	247196.056	2568693.596	72.529905	23.207997
	247200.2581	2568701.673	72.529945	23.20807
	247208.9229	2568715.846	72.530027	23.2082
	247229.0641	2568702.476	72.530226	23.208082
	247224.0441	2568694.087	72.530178	23.208006
	247256.5766	2568673.773	72.530499	23.207827

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
33	Badam	<i>Terminalia catappa</i>	68
	Malabery Neem	Melia dubia	67
	Total		135

	Easting	Northing	Longitude	Latitude
33 Near Nano fertiliser Plant I parking area	246954.8898	2568549.136	72.527574	23.206656
	246939.0403	2568580.807	72.527414	23.20694
	246944.7317	2568583.434	72.527469	23.206964
	246955.0198	2568561.544	72.527574	23.206768
	246999.3533	2568582.825	72.528003	23.206967
	247003.9706	2568570.512	72.52805	23.206857
	246954.8898	2568549.136	72.527574	23.206656

Plot Number	Common Name of Tree	Botanical Name of Tree	Quantity
Near NBRC Lab	Arjunsadar	<i>Terminalia arjuna</i>	1205
	Total		1205

	Easting	Northing	Longitude	Latitude
Near NBRC Lab	247125.5084	2568664.546	72.529221	23.207724
	247130.4601	2568664.956	72.529269	23.207728
	247138.7548	2568663.658	72.529351	23.207718
	247143.7264	2568660.835	72.5294	23.207693
	247148.8146	2568654.456	72.52945	23.207636
	247165.0376	2568643.149	72.529611	23.207537
	247164.6192	2568639.577	72.529607	23.207505
	247153.9765	2568623.451	72.529506	23.207357
	247143.8955	2568606.287	72.52941	23.207201
	247133.757	2568595.069	72.529313	23.207098
	247130.017	2568594.111	72.529277	23.207089
	247128.884	2568601.997	72.529264	23.20716
	247122.6901	2568614.937	72.529202	23.207276
	247117.725	2568625.322	72.529152	23.207369
	247099.0436	2568663.158	72.528963	23.207707
	247100.6656	2568663.811	72.528979	23.207713
247125.5084	2568664.546	72.529221	23.207724	

ANNEXURE I - b iii
Tree Plantation Campaign
during the
Year 2024 - 2025

Detail Report on Mega Tree plantation Programme at Mansa and Pethapur and near by villages District Gandhinagar on 4th October 2024

IFFCO Conduct Mega Tree Plantation programme at Malav Lake and Pethapur Lake as well as 7 surrounding villages of Gandhinagar District. In this Mega Tree Plantation Programme approx. 11500 various type sapling planted at 9 villages of Gandhingar district during the Newly developed Pethapur Talava open for public use and stone lying ceremony for development of Malav Talav under the Chairmanship of Shri Amit Shah, Union Minister of Home Affair and Cooperation.

Village wise Summery of Tree Plantation which was held in Various Villages of Gandhinagar District of Gujarat as per following

Mega Tree Plantation Campaign Gandhinagar									
Sr.No	Village	Block	No. of Tree						
			Mango	Pipal	Lemon	Gauva	Aonla	Neem	Total
1	Mansa	Mansa	56	56	278	278	278	334	1280
2	Bapupura	Mansa	56	56	278	278	278	334	1280
3	Solaiya	Mansa	55	55	278	278	278	333	1277
4	Charada	Mansa	56	56	278	278	278	333	1279
5	Parbatpura	Mansa	55	55	278	278	278	333	1277
6	Chiloda	Gandhinagar	56	56	278	278	278	334	1280
7	Pethapur	Gandhinagar	55	55	278	278	278	333	1277
8	Randheja	Gandhinagar	55	55	277	277	277	333	1274
9	Rupal	Gandhinagar	56	56	277	277	277	333	1276
		Total	500	500	2500	2500	2500	3000	11500

Other Diginaries participated in the programme was Shri Harsh Sanghvi, Home Minister of Gujarat State, Shri Rishikesh Patel, Health and education minister Gujarat, Shree Meeraben Patel, Mayor, Gandhinagar, IFFCO's Chairman Shri Dileep Sanghani, IFFCO's Vice Chairman Shri Balvir Singh, IFFCO's Hon. Managing Director Dr. U S Awasthi, Hon. Marketing director Shri Yogendra Kumar and Farmers and Cooperators of the surrounding villages. Shri Sandeep Ghos, Sr. General Manager, Kalol, Shri P K Singh, Jt. GM IFFCO Nano Plant and other officials from IFFCO Gujarat and IFFCO Kalol Unit

IFFCO organized Mega Tree Plantation during opening ceremony at Pethapur Lake, Village – Pethapur, Distt. Gandhinagar

Under the Chairmanship of Shri Amitbhai Shah (Union Minister of Home Affair and Cooperation), newly developed Pethapur Talav was open for public use. In this programme Shri Harsh Sanghavi (Home Minister- Gujarat State), Shri Meeraben Patel (Mayor – Gandhinagar District.), Shri Balveer Singh (Vice-chairman IFFCO), Shri Yogendra Kumar (Marketing Director- IFFCO), and other dignitaries of IFFCO and Gandhinagar Municipal Corporation Participated in these Programme.

Shri Amitbhai Shah planted Baniyan Tree under "एक पेड़ मां के नाम " Programme on behalf of IFFCO and Local Authorities and Enhance the beauty of newly developed Talav at Pethapur, IFFCO had planted the trees in surrounding area of the Pethapur lake also.

This program's glimpse is as follows in the form of a photo are under.





Mega Tree Plantation Campaign during Stone lying ceremony at Malav Talav Mansa, Dist. Gandhinagar

IFFCO organized Mega Tree Plantation during Stone laying ceremony of Malav Lake, Mansa District Gandhinagar under the Chairmanship of Shri Amitbhai Shah (Union Minister of Home Affairs and Co-operation), Shri Rushikesh Patel (Health & Education Minister – Gujarat State) Shri Deelip Sanghani (Chairman, IFFCO), Shri Balveer Singh (Vice Chairman, IFFCO), Dr. U S Awasthi (Managing Director, IFFCO), Shri Yogendra Kumar (Marketing Director, IFFCO), Shri Avinash Chandra Awasthi (Vice Chairman, IFFDC), Shri N M Gajera (SMM, Gujarat), Shri J S Patel (MLA, Mansa) and other dignitaries of IFFCO and Govt. Department Participated in the Programme.

Shri Amitbhai Shah Planted “Kalpvriksha” Tree under "एक पेड़ मां के नाम " Programme and Enhance the beauty of Malav Talav. Under this programme IFFCO had planted many Tree at different place and also 11500 tree plantation done in this programme in surrounding areas of the Malav Talav.

This program's glimpse is as follows in the form of a photo are under.





Mega Tree Plantation Campaign, Village Bapupura, Distt. Gandhinagar

Under the chairmanship of Co-op Personal and RGB Shri Purshottambhai Chaudhari and Sarpanch of Village Mega Tree Plantation programme conducted. In this programme 400 Nos. of Farmers & Villagers remain present. Approx. 1250 Different Tree Planted in the Village during the programme.



Mega Tree Plantation Campaign, Village Rupal, Distt. Gandhinagar

Under the leadership of Bharatbhai Chavda (Sarpanch), Kanubhai patel (Mandir Manager), Hiteshbhai (Principal Higher secondary school), School staff, ADC Bank Manager Mega Tree Plantation Campaign organized. In the programme about 200 Nos. of Village people participated. Total Approx. 1260 Nos. of Tree Planted in the villages.



Mega Tree Plantation Campaign, Village Solaiya, Distt. Gandhinagar

Under the leadership of Manishaben Y Chaudhary (Sarpanch), Kantibhai Chaudhary (Member of Panchayat Body), Vinodbhai Chaudhary (Principal of Solaiya Highschool). Total 150 school children and villagers participated in the programme. Total 1270 Nos of Tree Planted at various places during the programme.



Mega Tree Plantation Campaign, Village Chiloda, Distt. Gandhinagar

Under the Leadership of Sh. Jaiminbhai Patel (Sarpanch) (IFFCO RGB), Sh. Makani Rameshbhai Patel (Principal Higher secondary school), Shri Jayantibhai Patel (Secretary, Chiloda SSM) Mega Tree Plantation programme was conducted. In the programme about 300 Villages participated and planted the approx.. 1280 Trees at different places of villages.



Mega Tree Plantation Campaign, Village Randheja, Distt. Gandhinagar

Under the Leadership of Mr Gopalbhai Patel (Chairman Randheja Kelvani Mandal), Shri Ramanlal Patel Secretary, Mr Ashvinkumar K Patel (Principal Shri J.S. Patel Vidhyamandir, Randheja) Mega Tree Plantation programme conducted. In the programme 200 Nos of villagers participated and approx.. 1250 Nos. of Trees planted.



Mega Tree Plantation Campaign, Village Charada, Distt. Gandhinagar

Under the Leadership of Shardaben Patel (Deligate, Jilla Panchayat), Sh. Mahendra Patel (Chairman, Patidar Sankul Charada) Mega tree Plantation programme conducted in which 145 villagers participated and planted approx.. 1270 Trees at various locations of village.



Mega Tree Plantation Campaign, Village Parbatpura Distt. Gandhinagar

Under the Leadership of Smt. Ashaben Patel (Principal), Sh. Sureshbhai Patel (Secretary, Parbatpura SSM) Mega tree Plantation programme conducted in which 150 Villagers participated and approx.. 1250 Nos. Tree at various locations of the Village.





CO-OPERATIVE RURAL DEVELOPMENT TRUST

C/o IFFCO Kalol Unit, PO, Kasturinagar,

Distt. Gandhinagar PIN - 382 423

Phone (O) (02764) 224066

e-mail : cordet_kalol@iffco.in

**Native Tree/Ornamental Plant Saplings Distributed to Village nearby of IFFCO Kalol
in the Year 2024 - 2025**

Sr. No.	Name of Village	Name of Tree/Plant Sapling					Total Plants in Nos.
		Neem	Exora	Ashok Pendula	Rose	Kanner	
1	Sh.Bhoyan rathod Prathmik school	100	50	25	50	20	245
2	Vadavi-Tarasaniya Gram Panchayat	750	50	35	25	40	900
3	Tintoda Gram Panchayat	500	50	25	25	10	610
4	Shahpur Gram Panchayat	500	50	50	25	30	655
	Total	1850	200	135	125	100	2410

ANNEXURE I - b iv
Tree Plantation Campaign
during the
Year 2025 - 2026

TREE PLANTATION CAMPAIGN

IFFCO and GMC (Gandhinagar Municipal Corporation) jointly organized Mega Tree Plantation under chairmanship of Shri Amit Bhai Shah (Union Home and Co-operative Minister) at Vavol of Gandhinagar as on 23rd September 2025. As a flagship gesture, Hon. Minister Planted Banyan tree plant as commencement of plantation drive “Ek Ped Maa Ke Naam 2.0”

This program witnesses august presence of Shri Deelip Sanghani (Chairman, IFFCO), Shri Balveer Singh (Vice Chairman, IFFCO), Shri Yogendra Kumar (MKD, IFFCO), Smt. Madhavi Virpradas (CEO, IFFDC), Shri Nigam Gajera (SMM Gujarat).

IFFCO Dignitaries planted various tree plants at Vavol to motivate farmers regarding the essence & need of Mother Nature.





Along with this as a part of Mega Tree Plantation, IFFCO along with local cooperative societies, and Primary schools organized Tree plantation drive in various 11 village of Gandhinagar district and distributed tree saplings among students and farmers.

Village wise Summery of Tree Plantation which was held in Various Village of Gandhinagar District.

Mega Tree Plantation Campaign Gandhinagar 23.09.2025			
Sr.No	Village	Block	No. of Tree
			Neem
1	Unava	Gandhinagar	4100
2	Himmatpura (Bilodra)	Mansa	4100
3	Charada	Mansa	4100
4	Delvad(K)	Mansa	4100
5	Makakhad	Mansa	4100
6	Lodara	Mansa	4100
7	Rupal	Gandhinagar	4100
8	Solaiya	Mansa	4100
9	Mubarakpura	Gandhinagar	4100
10	Veda	Kalol	4100
11	Samau	Mansa	4100
12	Vavol	Gandhinagar	300
		Total	45400

TREE PLANTATION CAMPAIGN

1. **Village Name:** Unava, Gandhinagar
2. **District Name:** Gandhinagar
3. **Chief Guest:** Primary School Principal Haribhai Patel, Co-op Personal Shri Amrutbhai Patel
4. **No. of participant:** 120
5. **Photos:**



TREE PLANTATION CAMPAIGN

1. **Village Name:** Himmatpura (Bilodra), Mansa
2. **District Name:** Gandhinagar
3. **Chief Guest:** Shri Harshadbhai Patel (Sarpanch), Shri Natvarbhai Patel (Coop Personal)
4. **No. of participant:** 150
5. **Photos:**



TREE PLANTATION CAMPAIGN

1. Village Name: Charada, Mansa

2. District Name: Gandhinagar

3. Chief Guest: Shri Jesangbhai Chaudhary (Coop Chairman), Shri Harsh Chaudhary (Coop Personal)

4. No. of participant: 110

5. Photos:



TREE PLANTATION CAMPAIGN

1. **Village Name:** Delvad (Krushnanagar), Mansa
2. **District Name:** Gandhinagar
3. **Chief Guest:** Jagdishbhai Patel (Sarpanch), Babubhai Patel (Chairman), Amratbhai Patel (Coop Secretary)
4. **No. of participant:** 80
5. **Photos:**



TREE PLANTATION CAMPAIGN

1. **Village Name:** Makakhad, Mansa
2. **District Name:** Gandhinagar
3. **Chief Guest:** Shri Satishbhai Chaurdhary (Sarpanch), Shri Ramanbhai Chaudhary (Coop Personal)
4. **No. of participant:** 130
5. **Photos:**



TREE PLANTATION CAMPAIGN

1. Village Name: Lodara, Mansa

2. District Name: Gandhinagar

3. Chief Guest: Shri Bhikhabhai (Sarpanch), Shri Rameshbhai (Dy. Sarpanch), Shri Jigneshbhai (Coop Personal)

4. No. of participant: 90

5. Photos:



TREE PLANTATION CAMPAIGN

1. Village Name: Rupal, Gandhinagar
2. District Name: Gandhinagar
3. Chief Guest: Shri Ravibhai (Sarpanch), Shri Kaushikbhai (Coop Personal), Shri Gunvantbhai (KVK Scientist)
4. No. of participant: 110
5. Photos:



TREE PLANTATION CAMPAIGN

1. **Village Name:** Solaiya, Mansa
2. **District Name:** Gandhinagar
3. **Chief Guest:** Shri Yasvantbhai Chaudhary (Sarpanch)
4. **No. of participant:** 70
5. **Photos:**



TREE PLANTATION CAMPAIGN

1. Village Name: Mubarakpura, Gandhinagar

2. District Name: Gandhinagar

3. Chief Guest: Shri Shitpalsinh (Sarpanch)

4. No. of participant: 80

5. Photos:



TREE PLANTATION CAMPAIGN

1. Village Name: Veda, Kalol

2. District Name: Gandhinagar

3. Chief Guest: Shri Pravinsinh Chavda (Sarpanch), Madhabhai Patel (RGB), Vishnubhai (Secretary)

4. No. of participant: 100

5. Photos:



TREE PLANTATION CAMPAIGN

1. **Village Name:** Samau, Mansa

2. **District Name:** Gandhinagar

3. **Chief Guest:** Baldevbhai Chaudhary (Sarpanch), Rameshbhai (Coop Chairman), Rakeshbhai (Secretary)

4. **No. of participant:** 70

5. **Photos:**





શ્રી અમિત શાહ

માનનીય કેન્દ્રીય ગૃહ અને સહકારિતા મંત્રી,
ભારત સરકાર



શ્રી દિલીપભાઈ સંઘાણી

ચેરમેનશ્રી
ઘરફકો, ન્યુ દિલ્હી



શ્રી કે. જે. પટેલ

મેનેજિંગ ડાયરેક્ટર શ્રી
ઘરફકો, ન્યુ દિલ્હી



શ્રી યોગેન્દ્ર કુમાર

માર્કેટિંગ ડાયરેક્ટર શ્રી
ઘરફકો, ન્યુ દિલ્હી





Gandhinagar, Gujarat, India
 Uvarsad-vavol Rd, Gujarat 382422, India, Gandhinagar,
 Gujarat 382422, India
 Lat 23.212207° Long 72.597373°
 23/09/2025 09:02 AM GMT +05:30



Gandhinagar, Gujarat, India
 Uvarsad-vavol Rd, Gujarat 382422, India, Gandhinagar,
 Gujarat 382422, India
 Lat 23.212211° Long 72.597382°
 23/09/2025 09:02 AM GMT +05:30



Uvarsad, Gujarat, India
 6h4p+gjr, Uvarsad, Gujarat 382422, India
 Lat 23.205025° Long 72.585696°
 23/09/2025 08:59 AM GMT +05:30







ANNEXURE I - c
Photos of ETS Nano Fertiliser Plants

Photos of Effluent Treatment System (ETS) at Nano Fertiliser Plant



ANNEXURE I
THIRD PARTY MONTHLY MONITORING REPORT
OF AMMONIA SCRUBBER

Stride Green Technologies LLP		F/OPN/05 Issue No.: 04 Page 1 of 1
Test Report		
Stack Analysis		

Name and Address of Customer	M/s. Indian Farmers Fertiliser Cooperative Ltd. Plot No. 712/846,855,856 of Saij, 17-37 of Dhanej, P.O. Kasturinagar, Kalol, Ta. Kalol, Dist. Gandhinagar.		
Discipline	Chemical	Group	Atmospheric Pollution
Report No.	SGT/S/09/144/25-26	Date of Issue	24/09/2025
Sample Description	Process Emission	Stack attached to	Ammonia Scrubber (V 1207) in Urea Plant
Date and time of sampling	18/09/2025 11:40 hrs.	Duration of sampling	30 min
Sample Receipt Date	18/09/2025	Sample ID	SGT/S/09/144
Fuel used	NA	Stack gas Velocity in m/sec	5.12
Stack height in meter	71	Stack diameter in mm	--
Sampling Procedure	IS 11255	Sampling By	SGT Team
Stack temperature of Process Emission in °C	40	Ambient temperature in °C	33
Environmental Condition during testing	25 ± 2 °C	Location of test performed	At Laboratory
Condition of sample during receipt	Satisfactory	Sampling plan	E/SYS/09
Testing Test Start Date	19/09/2025	Testing Test End Date	19/09/2025

Test Results

Sr. No.	Parameters	Unit	Test Method	Results	Limit (as per GPCB)
1.	Ammonia (NH ₃)	mg/Nm ³	IS 11255 (Part 6) :1999	31.2	175

Remarks →

- Test Report shall not be reproduced except in full, without written approval of the Laboratory.
- Sample will be disposed after 15 days from the date of issue of the report unless agreed with the customer.
- Opinion & Interpretation is not given.
- Decision rule is not applicable.

 Mr. Jignesh Prajapati Chemist Tested By		 Mr. Sandip Patel Technical Manager Reviewed and Approved By
---	---	---

----- End of Test Report -----

ANNEXURE I #
Certificate from Agriculture University for use of
treated water for Gardening/Horticulture
within the Complex

Directorate of Research



Dr. B.S.Deora
I/c.Director of Research & Dean P.G.Studies

No: SDAU/DR/Tech-1/1964 /2022

Date: 23/02/2022
07-03

To,
Sh. S Mohan
Jt GM (EPC)
IFFCO-Kalol Unit
Kasturi Nagar post
Dist. Gandhinagar

Sub.: Utilization of treated water from ETP for gardening/horticulture
within plant premises-reg

- Ref. 1. Your e-mail with analysis reports dated 11/02/2022
2. Letter from Professor & Head(Soil Sci.) CPCA, SDAU dated 23/02/2022

With reference to above cited subject, I would like to bring to your kind notice that as per the analysis report of the waste water from Effluent Treated Plant(ETP) outlet of IFFCO, Kalol, the values obtained from the samples were found within a prescribed norms. Accordingly, the ETP water can be used for gardening/ horticultural crops/green belts *etc* subject to regular monitoring for its long term use.




DIRECTOR OF RESEARCH &
DEAN POST GRADUATE STUDIES

ANNEXURE II
ENVIRONMENTAL MANAGEMENT CELL (EMC) RESPONSIBILITY
AND LABORATORY FACILITIES

Environmental Management Department

&

Facilities available in IFFCO Laboratory

IFFCO Kalol Unit committed for continual improvement on its environmental performance. The unit has separate Environmental Management Department and full-fledged laboratory facilities.

The Environment Management department is headed by Sr. GM (Tech.) who reports to Unit Head directly. Three officials are dedicated for normal activities of the section and they are directly report to the Sr.GM (Tech). Hierarchy of the department is given in **Figure 1**.

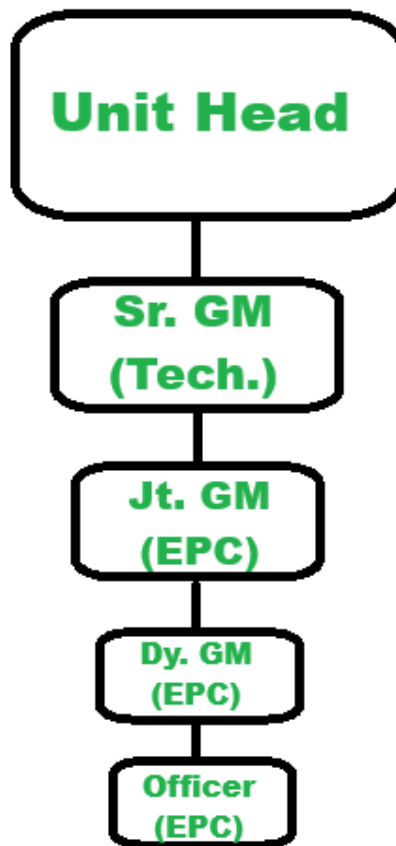


Figure 1: Hierarchical of Environmental Management Cell



Jt.GM (EPC) co-ordinates all Environment related activities;

I. Responsibilities of Jt. GM (EPC) are as below:

- i. Responsible for maintaining Effective Environment Management System with focus on pollution prevention & resource conservation.
- ii. Developing and maintenance of green belt with the support of P & A Dept (Horticulture section).
- iii. Environmental monitoring of the plant and surrounding area.
- iv. Ensure to carry out EHS Management Plan / programme as per the schedule.
- v. Regular training to employees on Safety and Environment related Topics.
- vi. Regular monitoring of stacks, ambient air, noise etc either internally or by appointing external agency and data analysis. Corrective and preventive action, wherever required.
- vii. Hazardous wastes management and handling.
- viii. Ensure submission of various statutory reports like Environment statement as per form V, Records of Hazardous waste Handling & Management as per form III & IV.
- ix. Carrying out Environment audit by Schedule I auditor appointed by GPCB.
- x. Ensuring timely submission of applications for renewal of consents under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 as well as application for authorization and its renewal under Hazardous & Other Waste (Management and Transboundary Movement) Amendment Rules, 2016, and amendment thereof under Environment Protection Act, 1986.



Facilities available in IFFCO laboratory

IFFCO has established laboratory facilities in the plant with 13 skilled personnel for monitoring and analysis. Required facilities for chemical & biochemical analysis has been set up in plant premises. Various quality monitoring instruments are available at Central Laboratory for analysis of (a) raw materials (b) gaseous and liquid composition in the ammonia and urea process (c) Final product (d) HDPE bags for packing of urea. Standard methods are used for collection of liquid and gaseous samples. All the relevant Environment and quality monitoring instruments are calibrated periodically through external agency / inhouse. Standard operating procedures for analysis of various parameters have been prepared and followed.

Treated water from ETP is analyzed for specific parameters every shift of 8 hours duration. PM_{2.5}, PM₁₀, Ammonia, SO_x, NO_x in ambient air and noise level at different locations of the plant are analyzed / measured every week. Samples from Prill tower vent, BHEL boiler stack, Primary reformer stack are collected and analyzed by IFFCO Lab as per the requirement. All Environment related parameters w.r.t Process & Fuel stack emission, ETP outlet and noise level at various locations, Ambient Air are analyzed / measured by NABL approved Laboratory on monthly basis.

List of Instruments available in laboratory pertaining to environmental analysis is given below in **Table 1**.

Table 1: List of Instruments available in laboratory

S. No.	Description	S. No.	Description
1	Electronic Balances	18	Stirrer
2	Hot Air Oven	19	Conductivity Meter
3	Muffle Furnace	20	Sound Level Meter
4	Karl Fischer Titrator	21	Flue Gas Analyzer
5	Stack Monitoring Kit	22	Handy Sampler
6	pH Meter	23	B.O.D. Incubator
7	Respirable Dust Sampler	24	Laminar Flow Station
8	Centrifuge Machine	25	Oil Bath
9	Turbidity Meter	26	Auto Titrator
10	Water Purifier Unit	27	Oxygen Meter
11	Wet Gas Flowmeter	28	High Volume Sampler
12	UV-Vis Spectrophotometer 1800 / 1700	29	Humidity Monitor
13	Water Bath	30	Hot Plate
14	Weather Monitoring Station	31	Autoclave
15	Dew Point Analyzer	32	Do Meter
16	Vacuum Pump	33	Magnetic Stirrer
17	Flame Photometer		

Photographs of Laboratory is shown in **Figure 2.**



Figure 2: Photographs showing inside view of Laboratory

ANNEXURE III
HALF YEARLY COMPLIANCE REPORT
ON
POLLUTION CONTROL STANDARDS



**INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
KALOL UNIT**

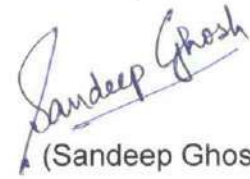
From: Executive Director IFFCO – Kalol Unit EPC /02/1403	To: Director (CRS) IFFCO - New Delhi Date: 09/10/2025
---	--

Sub: Compliance of Pollution Control Standards.

Ref: Letter No. 15031/4/98-FP-III dated 6/10/98 and Letter No. 13041/11/2001-FP-dated 04/07/2001 received from DOF

Please find attached herewith the Half Yearly Report for the period of April - 2025 to September – 2025 in the prescribed format "A" for onward transmission to Ministry of Chemicals and Fertilizers (Department of Fertilizers).

Hope, the information furnished is in order.


(Sandeep Ghosh)

Encl.: As above

PROFORMA - A Sheet 1 of 2
STATUS OF IMPLEMENTATION OF POLLUTION CONTROL STANDARDS IN RESPECT OF LIQUID EFFLUENT / GASEOUS EMISSIONS IN FERTILISER INDUSTRY.

Name of the unit : Indian Farmers Fertiliser Cooperative Ltd., Kalol unit, Gujarat - 382423.

Period: April - 2025 to September - 2025.

Plants	Type of liquid Effluent/Gaseous emission	Pollution items where actual achieved are higher than	Prescribed Standards		Actual level being achieved	Pollution Control facility to be installed	Investment required (Rs. In lakhs)	Time frame for meeting compliance of all prescribed	List of steps taken so far
			CPCB	GPCB					
1	2	3	4		5	6	7	8	9
I Gaseous emission									
1. Urea plant Prill Tower exhaust	Particulate matter-	Nil	150	150	81.0	Ref : Note 1			
	in mg/Nm ³		2	-					
2. Ammonia Scrubber in Urea Plant (V-1207)	Ammonia in mg/Nm ³	Nil	-	175	27				
3. Primary reformer stack in ammonia plant	PM (in mg/Nm ³)	Nil	-	150	14				
	SOx (in ppm)	Nil	-	100	6.0				
	NOx (in ppm)	Nil	400 mg/Nm ³	50	7.0				
4. BHEL Boiler stack	PM (in mg/Nm ³)	Nil	-	150	12				
	SOx (in ppm)	Nil	-	100	5				
	NOx (in ppm)	Nil	-	50	7				

Note 1 : As the trial runs were not successful, PM Analyser had been de-installed from prill tower and taken away by the supplier M/s Adage Autmation, Mumbai

STATUS OF IMPLEMENTATION OF POLLUTION CONTROL STANDARDS IN RESPECT OF LIQUID EFFLUENT / GASEOUS EMISSIONS IN FERTILISER INDUSTRY.

Name of the unit : Indian Farmers Fertiliser Cooperative Ltd., Kalol unit, Gujarat 382423.

Period: April - 2025 to September - 2025.

Plant	Type of liquid Effluent/Gaseous emission	Pollution items where actual achieved are higher than prescribed standards.	Prescribed Standards (mg/lit*)		Actual level being achieved	Pollution Control facility to be installed	Investment required (Rs. In lakhs)	Time frame for meeting compliance of all prescribed standards	List of steps taken so far
			CPCB / MINAS	GPCB					
1	2	3	4		5	6	7	8	9
II Liquid Effluent Pollutants item									
Final treated Effluent discharge from Effluent Treatment plant (ETP) # at ammonia- urea complex	1) pH	Nil	6.5 - 8.5	6.5-8.5	6.9 - 8.4	Ref : Note 2			
	2) Temperature °C	Nil	-	40	26				
	3) Colour (Pt. co. scale)	Nil	-	100	24				
	4) Suspended Solids	Nil	100	100	20				
	5) Oil and Grease	Nil	10	10	Traces				
	6) Ammonical Nitrogen as N	Nil	50	50	14	Ref : Note 2			
	7) Fluorides	Nil	-	1.5	0.36				
	8) B.O.D.	Nil	-	30	14				
	9) C.O.D.	Nil	-	100	47				
	10) Chlorides	Nil	-	600	289				
	11) Sulphates	Nil	-	1000	97				
	12) Total dissolved Solids	Nil	-	2100	743				
	13) Sodium absorption ratio	Nil	-	26	3.10				
	14) Total Chromium	Nil	-	2	ND				
	15) Hexavalent Chromium	Nil	-	0.1	ND				
	16) Copper	Nil	-	3	0.01				
	17) Nickel	Nil	-	3	ND				
	18) Zinc	Nil	-	5	0.20				
	19) Free Ammonical Nitrogen as N	Nil	2	2	0.44				
	20) Total Kjeldahl Nitrogen(TKN) as N	Nil	75	75	19				
	21) Nitrate (NO ₃ -N)	Nil	10	20	6.6				
	22) Cyanide	Nil	0.1	-	ND				
	23) Sulphide	Nil	-	2	ND				
	24) Iron	Nil	-	3	ND				
	25) Manganese	Nil	-	2	ND				
	26) Arsenic	Nil	-	0.2	ND				
	27) Phenolic Compound	Nil	-	1	ND				
	28) Bio Assay Test	Nil	-	90% Survival of fish after 96 hours in 100% effluent	90 % - 95 %				

ND : Not Detectable

Remarks Note 1 : # Treated effluent is used for Horticulture / Gardening/ Green belt development within the IFFCO Kalol.
 Note 2 : Online instruments / analyser for measurement of pH, Flow and Ammonical Nitrogen at the outlet of Effluent Treatment Plant (ETP) had already been installed. Online data is captured in data logger and connectivity has also been established with both GPCB and CPCB servers.

ANNEXURE IV
ONSITE EMERGENCY PLAN IFFCO KALOL

ANNEXURES



Wholly owned by Cooperatives

ONSITE EMERGENCY PLAN



INDIAN FARMERS FERTILISER CO OPERATIVE LIMITED

KALOL UNIT

P.O.KASTURINAGAR DIST: GANDHINAGAR. PIN: 382423

ONSITE EMERGENCY PLAN

IN

COMPLIANCE OF

THE FACTORIES ACT, 1948

[See Section 41 B(4)]

&

THE GUJARAT FACTORIES RULES, 1963

[See Rule 68 J, Schedule – 8(A)]

PREPARED BY

FIRE & SAFETY DEPARTMENT

INDIAN FARMERS FERTILISER CO OPERATIVE LIMITED

KALOL UNIT

P.O.KASTURINAGAR DIST: GANDHINAGAR. PIN: 382423

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	1.2 About IFFCO KALOL	
	1.3 Introduction & Objectives of Disaster Planning	
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	2.1 Ammonia Plant	
	2.2 Urea Plant	
	2.3 Offsites facilities	
	2.4 Utilities facilities	
	2.5 Bagging & Urea Storage	
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	4.2 First hand information	
	4.3 On hearing emergency siren	
	4.4 Other arrangements for emergency preparedness	
	4.5 Emergency organization	
	4.6 Appointment of key personnel	
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	5.1 Types of accidents	
	5.2 Responsibility assigned	
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	6.2 First hand information	
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	7.3 System elements or event that can lead to a major accident	
	7.4 Safety related component	
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ANNEXURE IV A
DETAILS OF DISASTER MANAGEMENT & PREVENTIVE
MEASURES

ANNEXURES

Details of Disaster Management & Preventive Measures to minimize occupational hazards

I. Safety Measures

- OH & S policy at corporate level and IMS policy at Unit level and said Policies of IFFCO are given in Figure 1 and Figure 2.
- Hazard Identification and Risk Assessment
- Work Permit System procedure has been established for safely execution of job.
- Lock Out and Tag Out procedure has been established for Isolation of energized equipment's/machineries.
- Standard Operating procedures.
- Start-up procedure Shut down procedure, emergency procedure.
- Inbuilt safety measures such as trips, alarms, logics.
- All the pressure vessels/pipelines are provided with Safety Relief Valves, Audio-Visual alarms, trips, Safety interlocks.
- Mechanical integrity through Preventive Maintenance for all the machineries at regular intervals.
- Safety instrumentation- DCS System for plant process monitoring.
- Insulation of all the process equipment's which are subjected to high temperature conditions.
- Worker's participation in Safety Management system:- Safety committee meetings, employee suggestion schemes.
- Incident Investigation & reporting.
- Online near miss reporting
- DISH Certified competent persons for issuing work permit to carry out jobs in confined space.
- DISH Approved training centre to impart training for all the level of employees/Contract workmen.
- MSDS related to all the chemicals used in IFFCO Kalol complex are available
- Explosive concentration checking near the flanges.
- Fire resistant construction for all reaction vessels.
- Flame Retardant Low Smoke (FRLS) Cables are installed for electrical network.
- All the electrical fittings are provided with fuses, relays, circuit breakers.
- Management level Visual Inspection committee which quarterly carries out Hazardous Installation Inspection at these places.
- Various internal and external safety audits, Plant Safety committee, Housekeeping committees formed which conduct their audits regarding OS & H and demand time bund compliance.
- Hazardous areas already barricaded and separated from other operating units by proper separation distances. In such area, all equipment's used are flameproof and intrinsically safe.
- Plant Safety Inspections
- Hazard communication by the means of Safety Bulletin, Safety Posters, Caution boards.
- Chemicals are stored at isolated storage facility and labelling also done for identification of the container/chemicals.
- On-site emergency plan
- Mock drills
- Various PPES, Fire extinguishers, safety showers, First aid boxes (filled) & on line air masks, Gas masks etc are provided at various Hazardous installations

II. Fire Protection Measures

- Full Fledged Fire & Safety department with professionally qualified, experienced & skilled staff.
- Under Ground fire Hydrant system all over the plant as well as water and foam monitor system in crucial areas.
- Installation of DCS for effective F&S Control Room operation.
- Fire extinguishers of different types provided all over the plant areas and buildings at strategic locations.
- Fire Hydrant & Riser system with Hose boxes – for empty bag storage areas.
- FM-200 Local application system for the protection of Server room.
- Modular type Halotron fire extinguishers & NOVAC Based Automatic Fire Suppression system & Smoke detection system has been installed at Plant telephone exchange.
- NOVAC Based Automatic Fire Suppression system & Smoke detection system has been installed at Server room of IT Services.
- Analog addressable fire detection system at various plant control rooms, Electrical MCC's and buildings.
- Manual call points at strategic locations all over the plant premises.
- Various Fire & Safety Appliances like Foam Tenders, Fire Jeep, Water Jet Monitors, Foam Monitors, Fire Pumps (Elect.) Fire Pumps (Diesel), Jockey Pumps and Air Compressors.
- Remotely operated sprinkler system for Ammonia loading pumps, Ammonia loading gantry (rail & road) at storage area, ammonia & carbamet pumps in Urea plant.
- Water curtain system along the stairs of Urea prill tower.
- Clean agent fire extinguishers for office building areas.
- State of art beam detection system has been installed at Urea empty bag Storage area in Bagging Plant.

III. Safety Training

IFFCO Kalol unit is having a DISH (Directorate of Industrial Safety & Healthy) approved training center.

Following training programs are conducted for the Employees, contract workmen, GETs, apprentice trainees, IFFCO Trainees and Vocational trainee

- **Induction training:** For newly joined IFFCO employee, GETs, apprentice trainees, IFFCO Trainees and Vocational trainee
- **Induction training:** For contract workmen by F&S Department.
- **Job specific training:** Toolbox talk related to specific job like welding, cutting, grinding, vessel entry, work at height, excavation, handling hazardous chemicals etc.
- **Refresher training:** In the month of January for employees as well as contract employees, GETs, apprentice trainees, IFFCO Trainees and Vocational trainee.
- **Community awareness:** To nearby villagers, school students at regular interval
- Employees are sponsored for SHE training programs at various reputed institutions.
- Regular drills and training are conducted for F&S staff at Fire station.

Safety improvement measures implemented during the calendar year 2022-23

1. - To create safety awareness & consciousness, regular training and re-training / refresher programmes are conducted for employees and contractor's workmen.



- Training on use of Fire & Safety Equipments was given to all the control room staffs and administration building employees and contract workmen.





- Refresher training on use of Fire & Safety Equipments given to all Contract Staffs.





- **Chemical Safety Training was given to all the staffs of Nano fertiliser plant and NBRC.**




2. **NOVAC Based Automatic Fire Suppression system, Smoke detection system & FM 200 flooding system has been installed at Plant telephone exchange.**



3. **Wireless Smoke detection and fire alarm system has been installed at Narmada Water Treatment Plant.**



4.	<p>CO₂ Flooding system has been provided for Fire protection of Electric panel at NFP.</p> 
5.	<p>Analog addressable fire detection system has been installed at various plant control rooms (Amm. Storage, IG Plant, Cooling tower, DM Plant), Training Centre building & Cable trench in MCC Buildings.</p>
6.	<p>SOPs related to Fire & Safety equipments have been revised.</p>
7.	<p>Training module for contract workmen, GETs, GEAs, Apprentices has been revised.</p>
8.	<p>Various safety promotional activities done during safety week celebration (51st National Safety week from 26.02.2022 to 04.03.2022) like;</p> <ol style="list-style-type: none"> 1. Safety Poster competition for the children (dependent of Employees) 2. Safety Slogan competition. 3. Best near miss award
10.	<p>Installation of Ammonia gas detectors at Ammonia, Urea pant and Ammonia storage area.</p>



ANNEXURE V
FUGITIVE EMISSION CONTROL MEASURES

ANNEXURES



Measures for Fugitive Emission Control

Annexure - V

Fugitive emissions are generated more specially while transporting and handling product. Following measures are adopted in the plant to reduce the fugitive emissions.

Vibro Priller in Urea Plant

Vibro Priller which was developed by Chem seals Engineering, Mumbai / RPF “Grace Engineering”, Ukain, has been installed and taken in line to improve product quality, w.r.t. uniform product size distribution and to reduce PM emission level..

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
- Reduction in the temperature of urea prill in the range of 10 to 15 °C at bottom of prill tower with the same air flow.
- Crushing strength has improved compared the previous bucket (around 23 kg/cm²)
- Prill tower emission has reduced from 130 mg/Nm³ to less than 100 mg/Nm³.
- Frequency of prilling section shut down has reduced due to less scrapper build up
- No deposition of dust has been observed inside the wall of prill tower
- Prill cooling system load has reduced
- Dust dissolving batches has been reduced by 30 to 40%
- Quantum of less than 1 mm particle size is less than 1%.

Installation of Ammonia Scrubber (V-1207) to scrub vent scrubber (V-1203) off gases

To recover ammonia and to bring down the concentration of ammonia in vent gases within the limits specified by GPCB, one additional scrubber using DM water as scrubbing media has been installed at the downstream of vent scrubber (V-1203) to scrub gases from vent scrubber. About 2 t/h DM water is used for scrubbing. Now the vent gases from the scrubber contains less than 100 ppm ammonia. The scrubber is of 0.4 meter diameter and located above prill tower. Existing valve PICV-1202 has been shifted to downstream of the scrubber, which maintains pressure of the scrubber at around 6 kg/cm²g. A new HICV has been provided in the place of existing PICV- 1202. This valve is to be operated during plant upsets to avoid any liquid carryover to the scrubber.



Dust Collection system in Urea Storage Silo

Urea prills from prill cooling system is sent to bagging plant via silo/transfer tower. During this transition, dust is generated in the silo due to urea prills free falling, reclaiming, transfer of urea prills from one conveyor to another conveyor etc. In order to provide cleaner environment, wet scrubbing system including air ducting, venturi scrubber, volume separator, exhaust air fan, urea solution tank, pumps along with associated piping and instrument for the silo/transfer tower area has been installed.

Dust Collection system in B & MH plant

Urea prills from Prill cooling System/Silo is sent to bagging plant for bagging of urea prills. During the transition of urea prills, dust is generated in B & MH Plant at various points such as hoppers, conveyors and Bagging machines. In order to provide clear environment, a improved dust extraction system including cyclone scrubber, dedusting fan, ducting, stack, urea solution tanks, pumps along with piping and instrumentation was installed in B & MH Plant. The new improved Dust Extraction System is operated for clear environment in B & MH Plant. Photographs showing same are given in **Figure 1**.

Ammonia Recovery Unit in Ammonia Plant

Ammonia Recovery Unit (ARU) is installed and commissioned to treat ammonical water effluent from wash section of purge gas plant (PGR) and process condensate stripper of ammonia plant. The ammonical effluent (4%) from PGR was earlier used in regeneration of resins in water treatment plant. Now 4% caustic solution is used for regeneration of resins in WTP. The ARU consist of distillation column with provision of steam stripping for lean ammonical solution. About 3.5 MT/ day of ammonia is being recovered and the effluent water is used as Cooling tower make-up.

MP Process Condensate Stripper (1104-E, 1170-C A/B, 1170-J/JA) in Ammonia plant

Earlier, process condensate was treated in LP process condensate stripper (104-E) and about 6 MT/hr vapours, containing CO₂, methanol and ammonia, were vented to atmosphere.

As a part of resource and energy conservation, New MP Process Condensate Stripper (1104-E) has been installed with feed pumps (1170-J A/B) and Feed/Effluent exchangers (1170-C A/B) in place of LP process condensate stripper (104-E) and associated system (170-J/JA, 170-C/171-C) during 2016-17. Now, there is no venting of Off gases to atmosphere and the off gases containing ammonia is recycled back to the system.

Other measures adopted in the Plant

- Preventive measures like SOPs, 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.
- Compressors are provided at Ammonia Storage tank to maintain tanks pressure by converting vapor Ammonia to Liquid Ammonia and then returning into Tanks.



- Ammonia gas detectors are installed at identified locations 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 & treated in de-dusting system and recirculated within the process after making urea solution.
- All trucks with urea bags are transported after proper covering from the top.
- Bag Filters and ID fans are provided for collecting fugitive emissions for recycle into process
- De-dusting system is provided at the railway yard to collect fugitive emission of urea.
- Breather Valves are used in the ammonia storage tanks.
- Proper maintenance & operation for leak proof condition of machineries are carried out on regular basis.
- Sensors and detectors are provided at strategic locations for early detection of any leak.
- Fire hydrant system is provided as per defined guidelines to fight any emergency.
- 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.
- 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 seals are provided at all ammonia pumps.
- Good housekeeping, proper maintenance and continuous monitoring & inspection will prevent the chances of any fugitive emission from the process plant.

When monitoring results, indicate parameters above permissible limit, necessary corrective action is carried out immediately.



Dust Extraction System in Bagging & Product Handling Unit



Urea Prill Tower with Vibro Priller



Dust Extraction System in Silo (Urea Storage Area)

Figure 1: Photographs of Dust Extraction System and Urea Prill Tower

ANNEXURE VI
MEASURES ADOPTED TO REDUCE FRESH WATER USES

ANNEXURES

Major pollution abatement measures implemented for recycling and reusing of treated water and optimum utilisation of Raw/Fresh water

Sr. No.	Plant	Effluent Generated	Pollution Control Device	Method of Control
1.	Ammonia Plant	<p>Process Condensate</p> <p>Ammonical water from purge gas recovery (PGR) Unit</p> <p>Condensate from steam condensers.</p> <p>Condensate from Air compressor inter coolers</p> <p>Ammonical water from inter stage separator of syn gas compressor</p> <p>Continuous blow down from steam drum.</p>	<p>Process Condensate Stripper in Ammonia plant</p> <p>Ammonia Recovery Unit in Ammonia Plant</p> <p>Condensate Polisher Unit</p> <p>Reused as cooling tower make up</p> <p>Ammonia recovery unit / Hydrolyser stripper unit</p> <p>Reused as cooling tower make up.</p>	<p>Process condensate from ammonia plant is stripped in MP Process condensate stripper to remove and recycle the dissolved impurities like methanol, ammonia and CO₂. The stripped process condensate is reused as boiler feed water after passing through polisher unit.</p> <p>To treat ammonical water effluent from purge gas unit (PGR) in Ammonia plant, Ammonia Recovery Unit (ARU) has been installed. The system consist of distillation column with provision of steam stripping for lean ammonical solution. About 3.5 MT/ day of ammonia is being recovered and the effluent water is reused as Cooling tower make-up.</p> <p>Steam condensate from ammonia plant having traces of dissolved impurities are passed through Condensate Polisher Unit and then reused as boiler feed water.</p> <p>The pure condensate from all the three inter-stage coolers of air compressor is collected and sent to jacket cooling water sump. Finally, it is reused as cooling tower make up water.</p> <p>Ammonical water from inter-stage separator of Syn Gas compressor is collected and sent to ammonia recovery unit / hydrolyser stripper unit and then reused as cooling tower make.</p> <p>Blow down from steam drum is used for heating tail gas and then finally reused as cooling tower make up.</p>

Sr. No.	Plant	Effluent Generated	Pollution Control Device	Method of Control
2.	Urea Plant	<p>Process Condensate</p> <p>Turbine Condensate</p> <p>Steam Condensate</p> <p>Condensate from inter-stage coolers of CO₂ compressor</p>	<p>Hydrolyser System</p> <p>Reused as boiler feed water</p> <p>Reused as boiler feed water</p> <p>Reused as cooling tower make up water</p>	<p>Process condensate from Urea plant contain 5.5 to 6.5% of Ammonia and 3.0% of Urea. It is treated in Urea Hydrolyser System, where urea is decomposed to Ammonia and Carbon Dioxide. The recovered ammonia and carbon dioxide is condensed in reflux condenser for use in process. The condensate is sent to cooling tower to use as cooling tower make up water.</p> <p>The surface condensate from CO₂ Compressor turbine is sent directly to de-aerator after heating to 96°C in surface condenser heater for use as boiler feed water.</p> <p>First stage evaporator steam condensate, is sent directly to deaerator in steam generation plant All other steam condensate is collected in the atmospheric condensate tank and the condensate is used as make-up to steam drum in urea plant and balance quantity is transferred to steam generation plant (BHEL boiler).</p> <p>A condensate outlet from inter-stage separators is connected to CO₂ spray cooler sump and from there it is pumped to use as cooling tower make up.</p>
3.	Steam generation plant	<p>Continuous blow down</p> <p>Steam Condensate</p>	<p>Reused as cooling tower make up</p> <p>Reused as boiler feed water</p>	<p>Blow down from steam generation plant is used as cooling tower make up.</p> <p>First and second stage evaporators steam condensate, is sent directly to deaerator in steam generation plant All other steam condensate is collected in the atmospheric condensate tank and the condensate is used as make-up to steam drum in urea plant and balance quantity is transferred to steam generation plant (BHEL boiler).</p>

ANNEXURE VII
EMAIL SENT TO CPCB

ANNEXURES



Wholly owned by Cooperatives

INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
KALOL UNIT

P.O. Kasturinagar, Dist.: Gandhinagar (North Gujarat)
PIN Code : 382 423 (INDIA)

Annexure - VII



EPC/02/2300

Date: 21.7.2018

Central Pollution Control Board,
IT Division, 5th Floor
Parivesh Bhavan
East Arjun Nagar, Delhi 110032.

Kind Attn : Sri. Aditya Sharma, Scientist D, IT Division.

Sub: To check tampering of online continuous emission monitoring system (OCEMS) data through Remote calibration for emission parameters.

Ref:1) Direction received from the CPCB vide notice No 12011/33/2018/IT-RCAL dtd 25.6.2018

2) GPCB letter No GPCB/CCA-GNR-95(7)ID-16444, vide Outward No 459247 dtd 26.6.2018

Dear Sir,

With reference to above, our observations / action taken are as under:

Trial runs of PM analyzer (Make: Durag) which was installed at ID fan stack of urea prill tower were not successful. It was communicated to the supplier M/s Adage Automation, Mumbai. In response to it, Representative from Adage Automation visited site and removed the unit from prill tower ID Fan on 15.2.2018. This has already been communicated to CPCB vide our E-Mail msg dtd 2.7.2018 under the subject "OCEMS Compliance reporting protocol: IFFCO: Kalol Unit", copy of which is attached herewith as **Annexure - I**

In view of above, compliance of following points as mentioned in above referred GPCB letter (copy attached as **Annexure -II**) is not applicable for IFFCO - Kalol Unit.

- A. Calibration facility for OCEMS is available at the Industry.
- B. Instruments are periodically calibrated and calibration data is also entered automatically into the system through the software installed at industry.
- C. Remote calibration facility is available at each gaseous OCEMS

This is for your kind information please.

Thanking you.

Yours faithfully,
For, IFFCO Kalol Unit

o/c
26/7/18
21/07/18
Gujarat Pollution Control Board
Head Office
Sector No. 10-A,
Gandhinagar-382010

26/7/18
ગુજરાત પ્રદૂષણ નિયંત્રણ બોર્ડ
પ્રાદેશિક કચેરી
પર્યાવરણ ભવન, સેક્ટર-૧૦-એ,
ગાંધીનગર-૩૮૨૦૧૦

D.G. Inamdar
(D.G. Inamdar)
General Manager

Encl: as above

cc : (1) Mrs. Dipali Tank, Unit Head- Gandhinagar, GPCB, Gandhinagar
(2) Mr. D C Vankani, Regional Officer, GPCB, Gandhinagar

Phone: 079-23282005, 02764-223256, 223258
Fax : 079-23286020

Email : dginamdar@iffco.in
Web Site Address: www.iffco. in



To: aditya.cpcb@nic.in, cems.cpcb@nic.in,
Cc: opdayama/kalol/iffco@iffco, epckalol/kalol/iffco@iffco,
Bcc: smohan/kalol/iffco,
Subject: Revised Mail on OCEMS Compliance reporting protocol - IFFCO : Kalol Unit
From: smohan/kalol/iffco - Monday 07/02/2018 11:46 AM

Dear Sir,

This is with reference to the telephonic talk which I had with you on 28.6.2018 regarding subject matter.

In this context, required data / information under OCEMS - Compliance reporting protocol for IFFCO-Kalol Unit have already been submitted online in CPCB Website.

Copy of acknowledgement slip is attached herewith for your reference.



OCEMS - Compliance reporting protocol - Acknowledgement slip.docx

Following are the Revised deviations / observations.

- 1) In the protocol, ETP - online continuous monitoring parameters such as Flow and ammonical nitrogen have been combined together. Hence there is no provision for mentioning characteristics of flow meters and ammonia analyser separately.
- 2) The system was not accepting industry code of IFFCO - Kalol unit i.e 07GJ007. Hence same has been mentioned alongwith industry name.
- 3) PM Analyser (Make : Durag) was supplied and installed at Prill tower ID fan by M/s Adage Automation, Mumbai on trial basis. But the trial runs were not successful. Same was communicated to the supplier. Accordingly representative from M/s Adage Automation visited site and removed the unit from prill tower ID fan on 15.2.2018

As per your advise, above points have been highlighted in the space meant for deviations / observations (Ref : Clause No 23 of Part III, Section H) of the protocol.

This is for your information please.

Regards,

S. Mohan
Dy. GM (Env & Pollution Control)
IFFCO Kalol Unit
Ph.: +91-9409307406 (M)
: 079-23282029 (O)



PDF Chat Request

Industry Information

Industry Name:	Indian Farmers Fertiliser Cooperative Ltd, Kalol Unit, Industry code: 07GJ007	Industry Category:	Fertilizer
Address:	Indian Farmers Fertiliser Cooperative Ltd, Gandhi Nagar Dist, Gujarat	Present in Ganga Basin:	no
Primary Contact:	S Mohan, 9409307406	Secondary Contact:	R H Vora, 9409307405
Last Updated:	29-06-2018 04:05:19	Status:	Submitted
Edit Request Status:	No Edit Request		

Calibration Information

Calibration Information

+ Add
Add

Show 10 entries

Search:

Sl.No	Process ID	Discharge/Stack ID	Parameter Name	Last Updated Date	Actions
1	Ammonia - Urea complex	Outlet of Effluent Treatment Plant (ETP)	pH	05-06-2018 05:31:02	
2	Ammonia - Urea complex	Outlet of Effluent Treatment Plant (ETP)	Flowandammonicalnitrogen	05-06-2018 05:31:02	

Showing 1 to 2 of 2 entries

First Previous 1 Next Last



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN
Sector-10-A, Gandhinagar 382 010
Phone : (079) 23222425
(079) 23232152
Fax : (079) 23232156
Website : www.gpcb.gov.in

R.P.A.D.

GPCB/CCA-GNR-95(7)/ID- 16444/ /date:

To,
M/s Indian Farmers Fertiliser Co-Operative Limited,
P.O.Kasturinagar, Dist- Gandhinagar.

Sub: To check tampering of online continuous emission monitoring system(OCEMS) data through Remote calibration for emission parameters.

Ref: Direction received from the Central Pollution Control Board(CPCB) vide letter No-C-1200/33/2017-2018/Tech/522 dated 16/04/2018.

Sir,

With respect to the above subject, the above referred CPCB letter dated 16/04/2018. Is enclosed here with for ready reference. You are hereby directed under Section 31 – (A) of the Air Act' 1981 to comply with following directions .

- Calibration facility for OCEMS is available at the industry end.
- Instruments are periodically calibrated & calibration data is also entered automatically into the system through the software installed at industry.
- Remote calibration facility is available at each gaseous OCEMS.

As directed remote calibration facility should be mandatory & should made available at industry on or before 31/05/2018.

You are hereby directed to submit above each point compliance report to office of CPCB with copy to this office.

This letter is issued after approval from competent authority.

Thanking You.

For & on behalf of
Gujarat Pollution Control Board

(Dipali Tank)
Unit Head

Outward No. 459247 26/06/2018

ANNEXURE VIII
PHOTOGRAPHS OF CONTINUOUS ONLINE
MONITORING SYSTEM

ANNEXURES

Online Continuous Effluent Monitoring Systems (OCEMS)

Online instruments / analyzer for measurement of pH, Flow and ammonical nitrogen at the outlet of Effluent Treatment Plant (ETP) have been installed. Online data is captured in data logger and connectivity has also been established with both GPCB & CPCB Servers. Photographs showing the same is given below



Online Ammonia Analyzer at ETP

Online pH at ETP

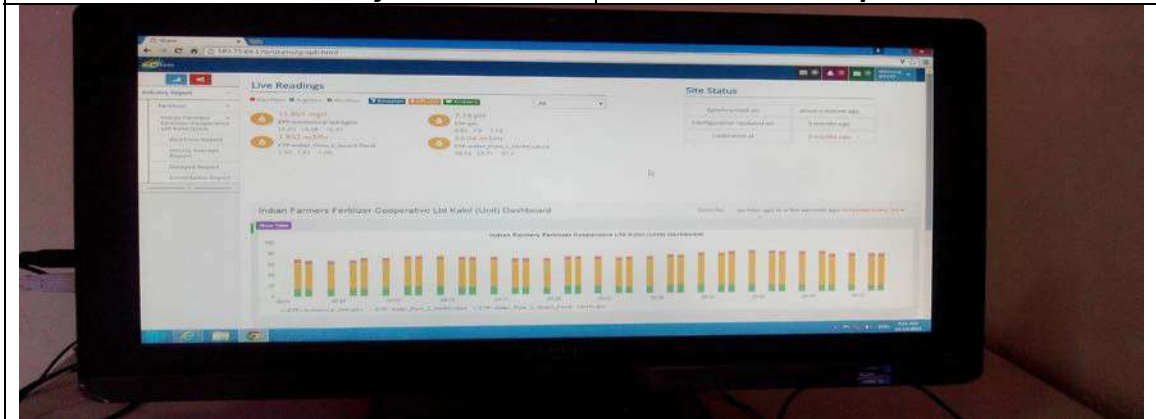


Photo of data logger (Local server) at ETP showing online readings of PH, Ammonical nitrogen and flow rate. These online data are transmitted to both CPCB & GPCB servers

ANNEXURE IX
STOCK OF TOXIC/HAZARDOUS RAW MATERIALS WITH
QUANTITY

ANNEXURES



Wholly owned by Cooperatives

Annexure - IX

Details of stock of toxic/hazardous raw material with quantity in the IFFCO Kalol Unit

Sr. No.	Toxic/Hazardous Raw material	Usage	Mode of Transportation	No. of Storage Tanks	Storage Capacity	Type of Storage	Opening Stock as on 01.10.2025
1	RLNG	Raw material for Ammonia plant	Through pipeline from GSPC	-	-	Pressure: 45 Kg/cm ² Temp: 22-25 degC: Continuous gas supply thru pipeline	Nil
2	Ammonia	Raw material for Urea plant	Through Pipeline from Ammonia	2	5000 MT + 10000 MT	-	2988 MT
3	Carbon Dioxide (Gas)	Raw material for Urea plant	Through Pipeline from Ammonia	-	-	-	Nil
4	Hydro Chloric Acid	For regeneration of Resins for Water treatment	By Road Tanker of 12 MT	2	2 x160 MT	FRP tanks at NTP Conditions	188 MT
5	Sodium Hydroxide	For regeneration of Ion exchange Resin in Water treatment & to maintain Cooling Water pH in Cooling Tower	By Road Tanker of 12 MT	3	29.5 KL + 50 KL + 9.5 KL	MS rubber lined tanks at NTP Conditions	39 MT
6	Sulphuric Acid	To maintain Cooling Water pH in Cooling Tower	By Road Tanker of 12 MT	3	33 MT + 20 MT + 5 MT	MS rubber lined tanks at NTP Conditions	16 MT
7	Chlorine	For prevention of microbiological growth in water in Cooling Tower	By Road in tonner of 1 MT	Stored in Tonners	--	--	7 MT

ANNEXURE X
DETAILS OF MEDICAL FACILITY AT OCCUPATIONAL
HEALTH CENTRE

ANNEXURES

Details of Medical Facilities at Occupational Health Centre (OHC) at IFFCO Kalol

1) Availability of staff at OHC:

- One Pharmacist / Staff nurse round the clock on OHC in shift duty.
- One Ambulance driver with well-equipped Ambulance.
- One doctor is available in OPD hours and on call basis in remaining time.
- One Safai Karmachari (Cleaner) is available in from 6 am to 10 pm as per their shift schedule.

2) Medical facilities at OHC:

- 2 (Two) Beds for first aid and daycare for emergency patient
- Oxygen Cylinder
- Oxygen Generator
- Defrillator for Cardiac Arrest patient
- Nebulizer for Asthmatic Patient
- ECG Machine
- Pulmonary Function Test Machine
- Suction Machine
- Breath Analyzer for Alcoholic patients
- Mercury free BP Apparatus
- Infrared Thermometer
- Sterilizer and Autoclave for Disinfection of Instruments
- Ultra Violet (UV) Chamber for disinfection of instruments
- One Auto loaded Stretcher for fast movement of patient
- One Eye Shower and Overhead Shower in front of OHC
- Color coded buckets for Bio Medical Waste Segregation as per GPCB guidelines
- Emergency Medicines
- OTC Medicines for OPD usage.

ANNEXURE X A & X B
MEDICAL CHECKUP REPORT

ANNEXURES

ANNEXURE XI
LIST OF PPE'S AVAILABLE AT VARIOUS AREAS

ANNEXURES

Installed Safety Equipment's (PPEs)

Annexure - XI

Sr. No	Equipment/ PPE name	Amm	Urea	Offsite/ utility	B & MH	Elect/ MPSS	LAB	Fire Tender	F & S Store/ OHC/ Others	Total
1.	SCBA Set (45 min)	04	04	05	--	--	--	08	13	34
2.	ELSA Set	10	08	10	02	03	01	12	44	90
3.	Digital Explosive Meter & Gas Detector	01	01	01	--	--	--	--	05	08
4.	Safety Belts	04	02	03	06	01		02	21	39
5.	Face Shield	01	01	05	01	01	01		04	14
6.	Goggles	02	02	08	02	02	02	--	--	18
7.	Acid / Alkali proof Hand Gloves	02	02	12	--	--	02	04	10	32
8.	PVC Hand Gloves	02	02	06	--	--	02	04	04	20
9.	Basofil Hand gloves	02	02	06	--	--	02	04	10	26
10.	Chemical protection Suits	02	02	08	--	--	02	02	11	27
11.	Aluminized Suit	01	--	--	--	--	--	01	01	03
12.	Air Line Point at field	10	25	18	--	--	--	--	--	53
13.	Airline mask Set for CR	04	04	06	--	--	--	--	11	25
14.	Safety Showers	05	05	14	01	-	-	--	06	31
15.	Canister Mask (Amm)	05	14	06	1	1	--	--	14	41

ANNEXURE XII
PHOTOGRAPHS OF TRAINING

ANNEXURES

Safety Training

IFFCO Kalol unit is having a DISH (Directorate of Industrial Safety & Healthy) approved training center.

Following training programs are conducted for the Employees, contract workmen, GETs, apprentice trainees, IFFCO Trainees and Vocational trainee.

- **Induction training:** For newly joined IFFCO employee, GETs, apprentice trainees, IFFCO Trainees and Vocational trainee
- **Induction training:** For contract workmen by F&S Department.
- **Job specific training:** Toolbox talk related to specific job like welding, cutting, grinding, vessel entry, work at height, excavation, handling hazardous chemicals etc.
- **Refresher training:** In the month of January for employees as well as contract employees, GETs, apprentice trainees, IFFCO Trainees and Vocational trainee.
- **Community awareness:** To nearby villagers, school students at regular interval
- Employees are sponsored for SHE training programs at various reputed institutions.
- Regular drills and training are conducted for F&S staff at Fire station.

Photographs of training:-

1. - To create safety awareness & consciousness, regular training and re-training / refresher programmes are conducted for employees and contractor's workmen.



-Training on use of Fire & Safety Equipment's was given to all the control room staffs and contract workmen.





- **Chemical Safety & use of chemical safety PPEs Training was given to the control room staff**



ANNEXURE XIII
DETAILS OF FIRE AND SAFETY SYSTEM AVAILABLE

ANNEXURES



Annexure - XIII

Details of Fire & Safety Systems

- Full Fledged Fire & Safety department with professionally qualified, experienced & skilled staff.
- Fire extinguishers of different types provided all over the plant areas and buildings at strategic locations.
- Fire Hydrant & Riser system with Hose boxes – for empty bag storage areas.
- FM-200 Local application system for the protection of Server room.
- Modular type Halotron fire extinguishers & NOVAC Based Automatic Fire Suppression system & Smoke detection system has been installed at Plant telephone exchange.
- NOVAC Based Automatic Fire Suppression system & Smoke detection system has been installed at Server room of IT Services.
- Installation of DCS for effective F&S Control Room operation.
- Analog addressable fire detection system at various plant control rooms, Electrical MCC's and buildings.
- Manual call points at strategic locations all over the plant premises.
- Various Fire & Safety Appliances like Foam Tenders, Fire Jeep, Water Jet Monitors, Foam Monitors, Fire Pumps (Elect.), Fire Pumps (Diesel), Jockey Pumps etc.
- Remotely operated sprinkler system for Ammonia loading pumps, Ammonia loading gantry (rail & road) at storage area, ammonia & carbamate pumps in Urea plant.
- Water curtain system along the stairs of Urea prill tower.
- Clean agent fire extinguishers for office building areas.
- State of art beam detection system has been installed at Urea empty bag Storage area in Bagging Plant.
- Complete fire protection system such as fire hydrant system, sprinkler system, fire extinguishers fire water monitors, fire pump house etc.at Nano Fertiliser plants.

I. Safety Measures

- OH & S policy at corporate level and IMS policy at Unit level and said Policies of IFFCO are given in Figure 1 and Figure 2.
- Hazard Identification and Risk Assessment.
- Work Permit System procedure has been established for safely execution of job.
- Lock Out and Tag Out procedure has been established for Isolation of energized equipment's/machineries.
- Standard Operating procedures.
- Start-up procedure Shut down procedure, emergency procedure.
- Inbuilt safety measures such as trips, alarms, logics.
- All the pressure vessels/pipelines are provided with Safety Relief Valves, Audio-Visual alarms, trips, Safety interlocks.
- Mechanical integrity through Preventive Maintenance for all the machineries at regular intervals.

- Safety instrumentation- DCS System for plant process monitoring.
- Insulation of all the process equipment's which are subjected to high temperature conditions.
- Worker's participation in Safety Management system:- Safety committee meetings, employee suggestion schemes.
- Incident Investigation & reporting.
- Online near miss reporting system.
- DISH Certified competent persons for issuing work permit to carry out jobs in confined space.
- DISH Approved training center to impart training for all the level of employees/Contract workmen.
- MSDS related to all the chemicals used in IFFCO Kalol complex are available
- Explosive concentration checking near the flanges.
- Fire resistant construction for all reaction vessels.
- Flame Retardant Low Smoke (FRLS) Cables are installed for electrical network.
- All the electrical fittings are provided with fuses, relays, circuit breakers.
- Management level Visual Inspection committee which quarterly carries out Hazardous Installation Inspection at these places.
- Various internal and external safety audits, Plant Safety committee, House-keeping committees formed which conduct their audits regarding OS & H and demand time bund compliance.
- Hazardous areas already barricaded and separated from other operating units by proper separation distances. In such area, all equipment's used are flameproof and intrinsically safe.
- Plant Safety Inspections.
- Hazard communication by the means of Safety Bulletin, Safety Posters, Caution boards.
- Chemicals are stored at isolated storage facility and labelling also done for identification of the container/chemicals.
- On-site emergency plan.
- Regularly conduct Mock drills.
- Various PPES, Fire extinguishers, safety showers, First aid boxes (filled) & online air masks, Gas masks etc are provided at various Hazardous installations.

Well demonstrated Safety Exhibition:

- There is a well equipped safety exhibition at F&S building. Different types of fire and safety equipment's have been displayed to make the people aware about available equipment's, facilities and their use.



Safety of Visitors

1. IFFCO Kalol has established online system for visitors evaluation on HSE aspects before issuing them the gate pass.
2. We have made a safety film for visitors. The film is shown to all the visitors at Security building and then the visitors are asked to undergo an online safety quiz based on the contents displayed in safety film.
3. After successful completion on quiz gate pass is issued to visitors for entry inside plant premises.



II. Fire Protection Measures

- Full Fledged Fire professionally qualified, experienced & skilled staff.
- Under Ground fire Hydrant system all over the plant as well as water and foam monitor system in crucial areas.
- Installation of DCS for effective F&S Control Room operation.
- Fire extinguishers of different types provided all over the plant areas and buildings at strategic locations.
- Fire Hydrant & Riser system with Hose boxes – for empty bag storage areas.
- FM-200 Local application system for the protection of Server room.
- Modular type Halotron fire extinguishers & NOVAC Based Automatic Fire Suppression system & Smoke detection system has been installed at Plant telephone exchange.
- NOVAC Based Automatic Fire Suppression system & Smoke detection system has been installed at Server room of IT Services.
- Analog addressable fire detection system at various plant control rooms, Electrical MCC's and buildings.
- Manual call points at strategic locations all over the plant premises.
- Various Fire & Safety Appliances like Foam Tenders, Fire Jeep, Water Jet Monitors, Foam Monitors, Fire Pumps (Elect.) Fire Pumps (Diesel), Jockey Pumps and Air Compressors.
- Remotely operated sprinkler system for Ammonia loading pumps, Ammonia loading gantry (rail & road) at storage area, ammonia & carbamet pumps in Urea plant.
- Water curtain system along the stairs of Urea prill tower.
- Clean agent fire extinguishers for office building areas.
- State of art beam detection system has been installed at Urea empty bag Storage area in Bagging Plant.

Detail of the fire protection system with photograph has been given below-

(1) FIRE WATER RESORVOIR CAPACITY: 5100 M³ + 410 M³ RCC Tanks



(2) FIRE PUMPS:

- (i) Two Nos. Jockey Pumps Having Capacity of 11M³/Hr and Two Nos. Jockey Pumps Having Capacity of (30 M³/Hr)
- (ii) One No. 1000 GPM Electrical Drive pump (273 M³/Hr) and One No. 1500 GPM Electrical Drive pump (410 M³/Hr)
- (iii) One No. 1500 GPM Diesel Engine driven Drive pump (410 M³/Hr)

(3) FIRE HYDRANT SYSTEM: Fire hydrants and water monitors have been installed at various locations of the plant premises.



(5) FIRE HYDRANT ISOLATION VALVES: Isolation valves have been provided at regular interval.

(6) FIRE EXTINGUISHERS: Various types of fire extinguisher considering the class of fire and degree of hazards have been installed at various location of plant premises and office buildings. Powder type, gas type and clean agent type fire extinguisher have been installed.



(8) FIRE VEHICLES: Four Nos.

Sr. No.	Tender	Capacity		Pump Capacity (LPM)	Registration No.
		Water (Litre)	Foam (Litre)		
1	Foam Tender	3500	500	2250	GJ -18 -AX- 6736
2	Foam Tender	2500	500	1800	GJ- 18 - U - 8656
3	Foam Tender	4000	500	3000	GJ -18 -SS- 1600
4	Fire Jeep	-	-	-	GJ -18 – AX - 1375



(9) FIRE/EMERGENCY COMMUNICATION SYSTEM:

- Fire Alarm Panel Boxes (Manual Call Point):



- Smoke Detectors: For early detection- 600 nos.



- Public Announcing System
- Walky Talky System
- Internal Telephones (2222 Nos. Only receiving Mode, 2635 Fire Control Room Incharge)
- Coded Siren with 05 Km range.

(10) Gas detection equipment:- Ammonia and hydrocarbon gas detectors have been installed at Ammonia, Urea and Offsite ammonia storage area.

(11) NOVAC Based Automatic Fire Suppression system & FM 200 flooding system has been installed at Plant telephone exchange.



III. Safety Training

IFFCO Kalol unit is having a DISH (Directorate of Industrial Safety & Healthy) approved training center.

Following training programs are conducted for the Employees, contract workmen, GETs, apprentice trainees, IFFCO Trainees and Vocational trainee


- **Induction training:** For newly joined IFFCO employee, GETs, apprentice trainees, IFFCO Trainees and Vocational trainee
- **Induction training:** For contract workmen by F&S Department.
- **Job specific training:** Toolbox talk related to specific job like welding, cutting, grinding, vessel entry, work at height, excavation, handling hazardous chemicals etc.
- **Refresher training:** In the month of January for employees as well as contract employees, GETs, apprentice trainees, IFFCO Trainees and Vocational trainee.
- **Community awareness:** To nearby villagers, school students at regular interval
- Employees are sponsored for SHE training programs at various reputed institutions.
- Regular drills and training are conducted for F&S staff at Fire station.





Wholly owned by Cooperatives

IFFCO Kalol have won more than 45 Awards since 1977 from State, National and International for Safety. Also, many in-house training programmes for Environment and safety are being conducted by IFFCO.



Wholly owned by Cooperatives

Corporate Policy on Health, Safety and Environment (HSE)

Indian Farmers Fertiliser Cooperative Limited intends to be leader in Health, Safety and Environment (HSE) performance. We wish to achieve this by continual identification of Occupational Health & Safety (OH&S) Hazards and environmental aspects by eliminating, controlling and managing them effectively at an early stage to minimize the risks and mitigate their adverse effects, and enhance social responsibility and accountability.

IFFCO is committed to:

- Perform work in a safe and environment friendly manner; comply with established HSE systems, procedures and statutory requirements.
- Identify all occupational health, safety and environmental hazards: Evaluate associated risks and implement controls and programs to minimize and monitor the risks in order to safeguard the workplace, employees, contractors, visitors and community.
- Minimize emissions, discharge and waste generation in order to reduce carbon footprint, safeguard the environment and prevent pollution. Dispose wastes safely and responsibly after taking measures to recycle and reuse.
- Utilize every opportunity to improve processes, control procedures, technology and products through effective audit and reviews, and assign clear Health, Safety and Environment responsibilities to employees, and provide necessary training for effective implementation.
- Provide adequate resources and leadership to mitigate and combat HSE concerns. Effectively implement, maintain and improve HSE management system to achieve the goals.
- Establish emergency preparedness and response procedures and plans to protect the employees, community and the environment in the event of an accident.

Through Management Committee, all members of the management have responsibility for safety and well being of those who work for them and others who may be affected. Managers throughout the Society are required to use their best endeavors to protect the health and safety for themselves and others. A resume of Health and Safety performance shall also find a way to remain on record in the Annual Report of the society for implementation of all concerned.

4th Oct, 2016



(U. S. Awasthi)
Managing Director

Figure 1: Occupational Health & Safety of IFFCO at Corporate Level



Wholly owned by Cooperatives

IFFCO 50
1967 2017
पूर्णतः सहकारी स्वामित्व इवर्ण जयन्ती
Wholly owned by Cooperatives Golden Jubilee
इफको के स्वर्णिम 50 वर्ष
50 Golden Years of IFFCO

Quality, Environmental, Health & Safety (QEHS) Policy

IFFCO Kalol is committed to achieve satisfaction of its Cooperative societies, farming community, internal and external consumers and stake holders through eco-conscious manufacturing and supplying of quality products. Our commitment is for:

- Creation of sustainable eco- friendly, safe and healthy work environment.
- Compliance of applicable legislative and other statutory requirements.
- Development of human resources.
- Continual improvement through (1) optimization and conservation of natural resources used (2) endeavour for Environment protection and prevention of pollution.
- Creating awareness amongst contract workmen on relevant QEHS aspects and ensuring good safety practices at their work.
- Taking appropriate measures to minimize and prevent health and safety risks.
- Effective and efficient use of conventional and non conventional energy sources.
- Ensuring effective communication within the organisation and among interested parties.

3.1.2017

[Signature]
Chief Executive Officer
IFFCO-Kalol Unit.

Figure 2: IMS Policy of IFFCO Kalol at Plant level

FIRE PROTECTION SYSTEM IN NANO FERTILISER PLANT

1. FIRE WATER RESERVOIR & FIRE FIGHTING PUMP

The fire water reservoir is of 820 M³ capacity.

The fire pump house consists of

- i. one main electrical fire pump of capacity 410 m³/hr.,
- ii. one diesel driven centrifugal standby pump of capacity 410 m³/hr.,
- iii. two nos. of electrical motor driven jockey pump of capacity 20.5 m³/hr.

2. **Fire hydrant & water monitors:** The entire plant and its premises are covered by external hydrants, internal hydrants and fire water monitor.

3. **Smoke detection and Fire Alarm System:** Smoke detectors are installed in the shop floor offices in the plant and heat detectors in pantries and kitchen area.

4. Fire Extinguishers

Various types of fire extinguisher considering the class of fire and degree of hazards have been installed at various location of plant premises and office buildings. Powder type, gas type and clean agent type fire extinguisher have been installed.

5. **Novec 1230 - 25 Bar Gas Suppression System for ELV Room**

6. **Sprinkler system for automated storage and retrieval system**



ANNEXURE XIV
DETAILS OF RAINWATER HARVESTING SYSTEM

RAINWATER HARVESTING AT IFFCO – KALOL

Rain water harvesting at Township – Kasturinagar

(Artificial recharge project by West Central Region(WCR), Central Ground Water Board

In collaboration with West Central Region, Central Ground Water Board(CGWB), water recharging well of 600 m³ capacity was installed and commissioned on 15th August 2001 for rain water harvesting at the cost of Rs 6.85 lakhs. Almost total rainwater of Kasturinagar Township is collected in 700 m³ capacity sumps and water is percolated in the soil through two tube wells provided.



Rain Water Harvesting system (Old)
(36 m³/hr capacity)



Rain Water Harvesting system (New)
(25 m³/hr capacity)

Apart from above, “Rain water harvesting modules” of Approx. 25 m³ capacity was installed at its township for harvesting the rain water. This is a “Precast modular step well” type (Primary+ Secondary) of system which operate on gravity and does not require electricity.

Primary module is for primary filtration of surface water. The water enters into the module horizontally from the surface. Top module is provided with gravel which restrict physical particles like vegetation and plastic entering the module and lower module acts as sedimentation/ settling tank.

Secondary unit have V-Wire screens of SS and a sand bed and gravels which control physical particles and natural environment impurities. The clean & pure rainwater is diverted to bore well of existing rain water harvesting system through cast iron pipe.

The system was commissioned on 15th August - 2014. Cost of implementation of the scheme was Rs. 1.6 Lakhs.

(I) Rain water harvesting at plant area

“Rain water harvesting modules” of Approx. 25 m³ capacity has been installed near Union Office at Plant site. This is a “Precast modular step well with bore well” with natural filters.

It consists of single module with internal volume of approximately 0.8 cubic meter that is to be fixed below ground level. The module is of an octagonal shape with a diameter of approximately 1000 mm below ground level and 918 mm above ground level.

The inlet and outlet of the system is 110 diameter UPVC pipes. The entire system contains approximately 0.06 cubic meter gravels of 40 mm size. Drilling depth as per geological condition is 60 ft.

The system was commissioned on 15th August - 2014. Cost of implementation of scheme was Rs. 2.2 Lakhs.



Module at Union office, IFFCO Kalol Plant

(II) Rain water harvesting with Bore well (02 Nos) installed at Township (Furaat Modular Model - PMW-92CFM-P1, Cement concrete system with SS 304 screen with Natural Filters)

It consists of single module with internal volume of approximately 0.8 cubic metre that is fixed below ground level. The module is of an octagonal shape with a diameter of approximately 1000 mm below ground level and 918 mm above ground level and below the planters and the top of the planter is approximately 1240 mm diameter.

It has a total of 16 pillars of 105 mm dia x 330 mm height fixed in circular arrangement with a gap of 30 mm between each two pillars making a total horizontal inlet area of 1584 cubic centimeter. The area within the pillars, above ground level and below the planter holds the gravels of 40 mm and acts as a filter.

Total height of the system is 2178 mm alongwith four planters of 570 x 570 x 186 having volume of approximately 0.025 cubic meter of each planter.



Module installed near Sr. GM Bungalow



Module installed near Nehru Circle

The height of the unit below the ground level is approximately 1602 mm and the system height above ground level but without planters is 390 mm. The height of the system above ground level with planters is approximately 576 mm.

There is a PVC sand filter of 315 dia x 1494 height in the unit below ground level. It also comprises of SS screen of 304 grade with filter area of 735 sq cm. and can hold 0.04 cubic meter of filtration sand.

The inlet and outlet of the system is 110 diameter UPVC Heavy Grade Pipes. The entire system contains proximately 0.06 cubic meter gravels of 40 mm size. Depth is 60 ft.

Both the system were commissioned on 17th March 2017. Cost of implementation of the scheme was Rs. 6.29 Lakhs.

ANNEXURE XV (i)
REGISTRATION CERTIFICATE
AS BRAND OWNER
UNDER THE PLASTIC WASTE MANAGEMENT RULES, 2016
EPR REGISTRATION



Regn. No.
BO-27-000-06-AAAAI0050M-22

Date:
28/06/2022 04:30 PM

RENEWAL OF REGISTRATION CERTIFICATE FOR BRAND OWNER
(Under Rule-13(2) of the Plastic Waste Management Rules, 2016, as amended)

To,
**INDIAN FARMERS
FERTILISER
COOPERATIVE
LIMITED (IFFCO),**
IFFCO SADAN, C-1,
DISTRICT CENTRE,
SAKET PLACE

With reference to the application dated **27/05/2022** regarding registration as a **Brand Owner**, this is to inform that your application has been processed and found in order. Now, therefore, Central Pollution Control Board Board is pleased to grant the registration in favour of **INDIAN FARMERS FERTILISER COOPERATIVE LIMITED (IFFCO)**, vide registered office address **IFFCO SADAN, C-1, DISTRICT CENTRE, SAKET PLACE**, as a Brand Owner, for disposal of MLP & other plastic waste generated due to their products as per the EPR Action Plan given below:

Sl. No	Financial Year	2022-23			
	State/UT	Cat-I	Cat-II	Cat-III	Cat-IV
1	CPCB	485.45	23526.65	0.00	0.00
TOTAL		485.45	23526.65	0.00	0.00
Grand Total		24012.1 TPA			

This certificate of registration shall be valid for a period of **Three years** from the expiry date of previous registration i.e. 26/05/2022 unless revoked, suspended or cancelled. The Registration is granted subject to the following terms & conditions: -

1. The Brand Owner shall fulfil the categorize EPR Targets for the year 2022-23 as specified in the above table. For the subsequent years, EPR Target shall be calculated based on the information provided in the Annual report, the format of which shall be specified by CPCB.
2. The Brand Owner shall provide certificate only from registered plastic waste processors as evidence of fulfilling their EPR obligation. The PIBO can meet the EPR obligation under a category by providing EPR certificates from other PIBOs of the same category.
3. Exchange of EPR credit between PIBOs and Plastic Waste Processors (PWP) to be done as per mechanism provided by CPCB.
4. The Brand Owner shall not deal with any entity not registered through on-line centralized portal developed by Central Pollution Control Board. .
5. The Brand Owner shall not engage in manufacture, stocking, distribution, selling of banned SUP items as listed in Amendment to PWM Rules dated August 12, 2021
6. In case, it is found or determined that any PIBO registered on the on-line portal has provided false information or has willfully concealed information or there is any irregularity or deviation from the conditions stipulated while obtaining registration under Extended Producer Responsibility guidelines, then the registration of such an entity would be revoked for a one - year period after giving an opportunity to be heard. The entities whose registration has been revoked shall not be able to register afresh for the period of revocation.
7. The Brand Owner should ensure compliance with provisions of the PWM Rules, 2016, as amended. Action, as deemed fit, including revocation of registration, closure of unit, levying Environmental Compensation charges, shall be taken against violators of PWM Rules.
8. CPCB reserves the right to take such action as deemed fit under Environment (Protection) Act, 1986 for violation of PWM Rules, 2016, as amended, if any, by the concerned PIBO for the period prior to grant of registration.

Div. Head, UPC-II

ANNEXURE XV (ii)

EPR Annual Report 2024 2025 as Brand Owner

ANNEXURES

EPR Annual Report 2024 - 2025 IFFCO as Brand Owner

1. Name of Unit	INDIAN FARMERS FERTILISER COOPERATIVE LIMITED (IFFCO)
2. Filing for Year	2024-25
3. Category	BRAND OWNER

4. Annual Report (2024-25)

Category	Procurement (Tons)	Sales (Tons)	Export (Tons)	Reuse (Tons)	UREP (Tons)
Cat I	2635.8382	1980.0000	0.0000	0.0000	0
Cat II	24341.332137841793	30278.0000	0.0000	NA	0.8250
Cat III	0.1357000000000000...	0.1357	0.0000	NA	0
Cat IV	NA	0.0000	0.0000	NA	0

5. Compliance Status of Fulfilment of EPR Targets

Category	Target	Achieved	Available Potential	Remarks
Cat 1 - Recycling Plastic	664	664	2744	Close
Cat 2 - Recycling Plastic	9323	9323	3500	Close
Cat 3 - Recycling Plastic	1	1	6	Close
Cat 4 - Recycling Plastic	0	0	0	Close
Cat 1 - End of Life Plastic	664	664	1420	Close
Cat 2 - End of Life Plastic	21753	21753	9338	Close
Cat 3 - End of Life Plastic	2	2	2	Close
Cat 4 - End of Life Plastic	0	0	0	Close
Cat 1 - Mandated Use of Recycled Plastic	NA	0	0	Close
Cat 2 - Mandated Use of Recycled Plastic	NA	0	0	Close
Cat 3 - Mandated Use of Recycled Plastic	NA	0	0	Close
Cat 1 - Reuse of Plastic (Containers> 0.9 L & < 4.9 L)	0	0	0	Close

Cat 1 - Mandated Use of Recycled Plastic	NA	0	0	Close
Cat 2 - Mandated Use of Recycled Plastic	NA	0	0	Close
Cat 3 - Mandated Use of Recycled Plastic	NA	0	0	Close
Cat 1 - Reuse of Plastic (Containers> 0.9 L & < 4.9 L)	0	0	0	Close
CAT 1 - Reuse of Plastic (Containers> 4.9 L)	0	0	0	Close

6. Upload Re-use plan

 View

7. Export Documents

No Data Found 

8. Next year Targets (2025-26)

Category	Target
Cat 1 - Recycling Plastic	1061
Cat 2 - Recycling Plastic	12066
Cat 3 - Recycling Plastic	0
Cat 4 - Recycling Plastic	0
Cat 1 - End of Life Plastic	708
Cat 2 - End of Life Plastic	18099
Cat 3 - End of Life Plastic	0
Cat 4 - End of Life Plastic	0
Cat 1 - Reuse of Plastic (Containers> 0.9 L & < 4.9 L)	0
CAT 1 - Reuse of Plastic (Containers> 4.9 L)	0

ANNEXURE XV A
REPORT ON AWARENESS PROGRAMME
ON SOLID WASTE MGT.
AND
STOP USE OF SINGLE USE PLASTIC



पूर्णतः सहकारी स्वामित्व
Wholly owned by Cooperatives

Project Report
on
Plastic Waste Management Campaign
Under



Submitted By:
Indian Farmers Fertiliser Cooperative Ltd
(IFFCO) – KaloI Unit

Submitted to:
Gujarat Pollution Control Board

Prepared By:
Aztec Recycling hub Pvt Ltd

Content

- 1. Introduction**
- 2. Objective**
- 3. Methodology**
- 4. Overall Strategy**
- 5. Steps towards activity**
- 6. Introduction of IFFCO**
- 7. Introduction of WMA & Recycler**
- 8. IEC Activity for effective implementation of PWM**
- 9. Selection of Villages**
- 10. IEC Activity for effective Implementation of PWM**
- 11. Plastic Waste Collection Activity**

Introduction:

The overall mission of the campaign is to manage plastic waste generated in the rural / gramin area by source segregation, reuse, recycling, and minimization of waste generation.

The above agenda was effectively fulfilled by three major activities

- Awareness on segregation at Source, mainly plastic waste disposal process.
- Information Education Communication (IEC) activities for effective awareness of plastic disposal.
- Collection and recycling of post-consumers used plastic waste from villages.

The overall strategy at various villages around the IFFCO Kalol Unit is to conduct awareness programs, plastic waste collection process for disposal, storage of wastes at the designated places and sending it to the disposal site i.e. recycler, co-processor, etc.

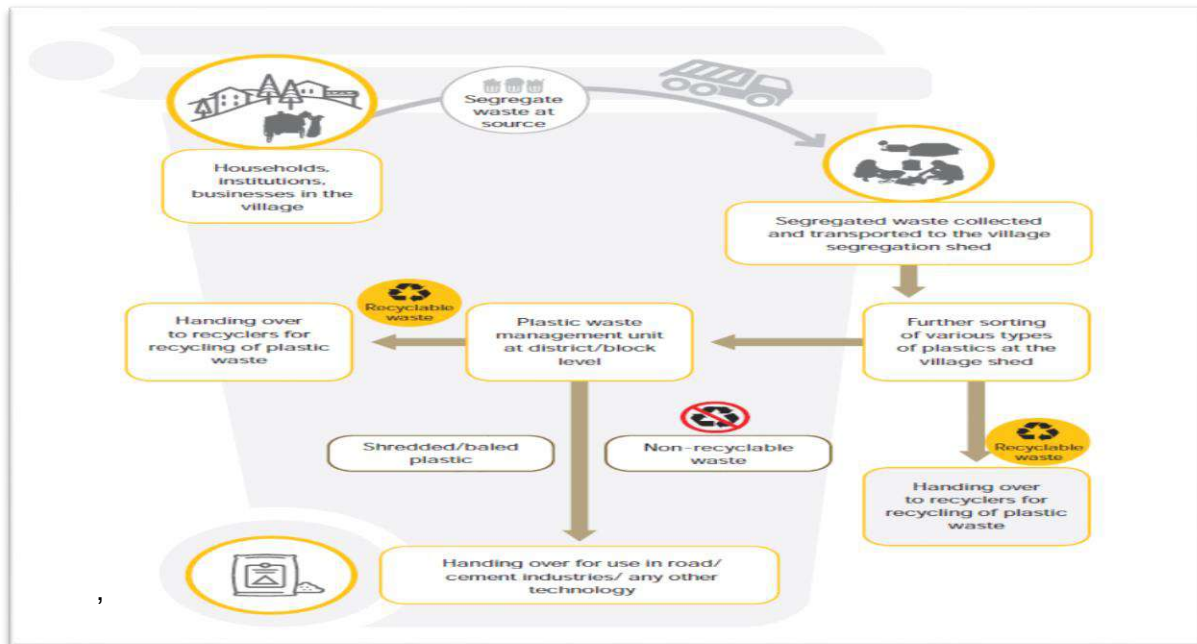
Objective:

- Collection of plastic wastes from rural areas
- To avoid water and land get polluted from plastic wastes
- To maintain the hygiene and health of citizens
- Create awareness about threats associated with Plastic Wastes among the people in the rural areas.
- Actively participate in achieving global sustainable goals in rural areas.

Methodology:

Methodology is to establish one Material Recovery Facility (MRF) center along with gram panchayat and collaboration with selected villages located nearby IFFCO - Kalol unit for PWM. To carry out this activity, a Waste Management Agency(WMA) i.e., M/s Aztec Recycling Hub Pvt Ltd was appointed by IFFCO-Kalol Unit for collection of plastic wastes, its segregation, transportation and disposal for recycling, all in compliance with GPCB Norms.. IFFCO Kalol unit has provided the overall support and capital funding for establishing such methods / collection of plastic wastes from the villages for recycling.

Overall Strategy:



Steps adopted to start the Activity:

- Field Survey and Selection of villages.
- Approach to Sarpanch of Gram Panchayat.
- Explaining and getting permission from the Sarpanch.
- Visit to schools, institutes, and local areas.
- Planning & conducting IEC activities. Awareness programs like putting hoardings in villages to promote awareness on source segregation, door to door visit, various activities to engage villagers on plastic waste management.
- Collection & Storage of plastic waste.
- Transportation and its disposal by recycling of plastic waste.

Introduction of IFFCO:

Indian Farmers Fertiliser Cooperative Limited, known as IFFCO, is the world's largest fertiliser cooperative based in India was registered on November 3, 1967, as a Multi-unit Co-operative Society.

It is a unique venture in which the farmers of the country through their own cooperative societies created this new institution to safeguard their interests.

IFFCO provides its services to more than 5 crore farmers with more than 35000 cooperative societies across the country. IFFCO Over the years have demonstrated its commitment towards socially responsible practices through its initiatives like CORDET, IFFDC that aim at empowering the entire farmer community. IFFCO believes in transforming agriculture through associated agriculture value chain by accelerating transition of food system thus ensuring food security and promoting sustainable agriculture.

IFFCO has five manufacturing Units in India, two units in Uttar Pradesh, two Units in Gujarat and one in Odisha. IFFCO Contributes to around 32.1% of phosphatic and 21.3% of Nitrogenous fertilisers produced in India and was ranked first amongst the top 300 cooperatives in the world (by Turnover on GDP per capita basis) by the World co-operative monitor report. IFFCO has moved to 57th position in the fortune 500 list of companies.

Kalol Unit located at Ahmedabad–Mehsana highway is the oldest unit of IFFCO and was commissioned in the year 1975 to produce 910 MTPD ammonia, based on Natural gas steam reforming process of M.W. Kellog, USA and 1200 MTPD urea plant based on CO₂ stripping process of Stamicarbon, Netherlands. In 1997, the capacity of Ammonia and Urea Plants were enhanced to 1100 MTPD and 1650 MTPD respectively. The Kalol Unit has run for 46 years and has been upgrading its technology regularly to match the overall performance of newly built state-of-the-art plants of 21st century. The complex has been certified with Integrated Management System (IMS) consisting of ISO 9001: 2015, ISO 14001: 2015 & ISO 45001: 2018.

Introduction of WMA:

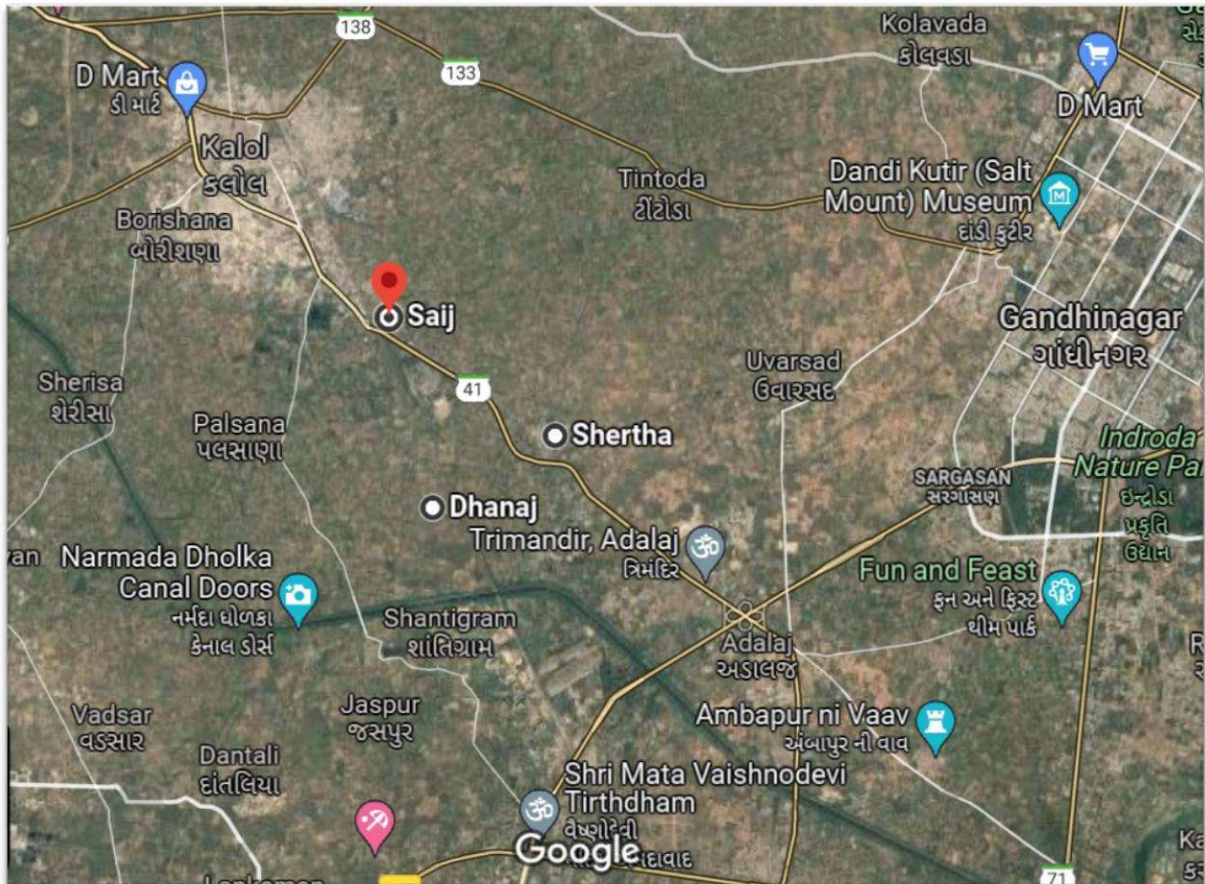
M/s Aztec Recycling Hub Pvt Ltd, GPCB authorized waste recycler, set out its journey in the arena of waste management service in the year 2016, to create a One-Stop Waste Management Solution for large-scale waste generators. M/s Aztec Recycling Hub Pvt Ltd generally, decouples economic activity by consumption of finite resources along with eliminating waste out of the system. It works on principles like preparing out of pollution and waste, keeping products and materials in use, and regenerating natural systems and offers advanced recycling solutions. M/s Aztec Recycling Hub Pvt Ltd is one of the leading waste management companies in the industrial sector of India, and guide companies to reduce, reuse and recycle every single waste like plastic, rubber, glass, paper, and tyres etc. to ensure economic security.

Role of WMA:

- ❖ Collection of post-consumers used plastic waste materials by Safai sathis appointed by M/s Aztec Recycling Hub Pvt Ltd from different locations of the villages.
- ❖ Along with collection, required training on awareness / guidance was given for segregation of the waste materials.
- ❖ MRF facility was developed in the Dantali village. All post-consumer used plastic materials were placed at Dantali village on a daily basis which is located nearby other four villages.
- ❖ Such Post-consumer used plastic waste were taken to M/s Aztec Recycling Hub's GPCB authorized plant for recycling after segregation

Details along with google location are mentioned as below: Saij, Dantali, Dhanaj, Shertha, Shertha Para (Opposite Kasturinagar).

Google Location of villages



IEC Activity for effective Implementation of PWM:

Information Education Communication (IEC) by means of the following were used for creating awareness on PWM

- Process of working with individuals, communities & societies to promote positive behavior that is appropriate to their settings.
- By educating the proper waste management and disposal process.
- By putting hoardings of waste segregation at prime locations of the village.
- Door to door awareness session,
- Public engagement activities
- Organising major event at school for kids of all villages along with all the people connected with the project.

Agenda of IEC activities in Rural areas:

- 1) Create plastic waste hazards awareness
- 2) Minimization of Plastic waste by 3R Policy
i.e., Reuse, Reduce and Recycle
- 3) Purposefully targeted schools to create a habit of plastic segregation and its minimization by reusing it.
- 4) Burning of waste is not a sustainable practice.
- 5) How & why recycling can help as best practice?
- 6) Change attitude of Children towards waste disposal @ Waste awareness program at Smt. J M G High School, Shertha.
- 7) Basic awareness on Importance of Management of Plastic Waste for a better tomorrow.

(MOU of Village: Saij & Shertha)

તા. 22/12/2021

એગ્રીમેન્ટ - અમૃત મહોત્સવ અંતર્ગત ૧૦૦ હિલસ માટે ગ્રામ્ય વિસ્તારના પ્લાસ્ટીક વેસ્ટ ના નિકાલ માટે - સૈજ

વિષય: ગામ ના સરપંચ શ્રી સાજી ગામ ના ઉદ્દેશ્યતા પોસ્ટ કન્યુમર મુસડ પ્લાસ્ટીક વેસ્ટ ના નિકાલ માટે વ્યવસ્થા કરવા સદર્ભ કેમ્પેન સ્વચ્છ ભારત મિશન અંતર્ગત.

એક તરફ વાળા: એએસ તીસાચકલીંગ ડુ. પ્રા. લિ. એ - ૫૦૬ વન વર્લ્ડ કેપિટલ, બોડકરોવ, બખાલાવાદ.

બીજી તરફ વાળા: સરપંચ શ્રી સૈજ ગામ પંચાયત.

ત્રીજી તરફ વાળા: ઇન્ડિયન ક્રામેસ ફેટિલાઇઝર કોઓપરેટિવ લિમિટેડ (ઇફકો), કલોલ, કમુતી નગર, ગાંધીનગર, ગુજરાત - ૩૮૨૪૨૭


બંધી અને એક બીજા ની સહમતી થી વચ્ચે ઉપરોક્ત વિષય ના સંદર્ભ માં નીચે મુજબ ની કાર્યવાહી કરવા તેવાર છીએ. ત્રીજી તરફ વાળા પી બ્લાઈ બી એ મહે એક તરફ વાળા કલ્ચુ અને એ કાર્યરત છે.

એક તરફ વાળાની જવાબદારી:


- સિંગલ વુસ્ટ પ્લાસ્ટીક વેસ્ટ ના કલેક્શન ના વ્યવસ્થાપન માટે બીજી તરફ વાળા ને મદદ કરવામાં આવશે.
- ગામ માં વેક્યુનિટ કલોલ પોસ્ટ કન્યુમર મુસડ પ્લાસ્ટીક વેસ્ટ રીસાયકલીંગ તથા ડિસ્પોઝલ કરવા ની વ્યવસ્થા કરવામાં આવશે.
- ગામ માં શ્રી નીકોલ તા પોસ્ટ કન્યુમર મુસડ પ્લાસ્ટીક વેસ્ટ ના કલેક્શન માટે મેનીફેસ્ટ બનાવી આપવામાં આવશે.
- ગામ માં શ્રી નીકોલ તા પોસ્ટ કન્યુમર મુસડ પ્લાસ્ટીક વેસ્ટ ના જમ્કની માહિતી પર્ચોવરણની પ્રારંભિક કચેરી એ મોકલી આપવામાં આવશે.

બીજી તરફ વાળાની જવાબદારી:

- ગામ માં નિકોલ પોસ્ટ કન્યુમર મુસડ પ્લાસ્ટીક વેસ્ટ લેગો કરી છૂટી પાડવાની વ્યવસ્થા કરવામાં આવશે.
- પોસ્ટ કન્યુમર મુસડ પ્લાસ્ટીક વેસ્ટ ને એક જગ્યા એ સંગ્રહ કરવાની વ્યવસ્થા કરવામાં આવશે.
- પોસ્ટ કન્યુમર મુસડ પ્લાસ્ટીક વેસ્ટ નો નિકાલ પર્ચોવરણ ને હાનિ ના પોરથી તે માટે સોરી સેગ્રીગેશન પ્રિયમ નો પાલન કરાવી પ્લાસ્ટીક નો સંગ્રહ અલગ અલગ કરાવી પુરવણ નિયંત્રણ વિભાગ ના ડ્રા અમુમતી અપેલ પ્લાસ્ટીક રીસાયકલર ને આપવું.
- મુસડ પ્લાસ્ટીક નો ઉપયોગ ઘટાડવા માટે તથા પ્લાસ્ટીક રીસાયકલ કરવા માટે જનજાગૃતિ કાર્યક્રમોનું આયોજન કરવા માટે એક તરફ વાળા ને મદદ કરવા માં આવશે.
- ગામ પંચાયત ડ્રાસ સિંગલ વુસડ પ્લાસ્ટીક નો ઉપયોગ નહીં કરવા તથા પોસ્ટ કન્યુમર મુસડ પ્લાસ્ટીક વેસ્ટ ને એક તરફ વાળા ને આપવાની ઠરાવ પસાર કરવામાં આવશે.



એક તરફ વાળા
એએસ તીસાચકલીંગ ડુ. પ્રા. લિ.
Official Seal



સરપંચ
સૈજ ગામ પંચાયત
સરપંચ શ્રી સૈજ ગામ પંચાયત
22/12/2021

તા. 13/12/2021

એગ્રીમેન્ટ - અમૃત મહોત્સવ અંતર્ગત ૧૦૦ હિલસ માટે ગ્રામ્ય વિસ્તારના પ્લાસ્ટીક વેસ્ટ ના નિકાલ માટે - શેરથા

વિષય: ગામ ના સરપંચ શ્રી શેરથા ગામ ના ઉદ્દેશ્યતા પોસ્ટ કન્યુમર મુસડ પ્લાસ્ટીક વેસ્ટ ના નિકાલ માટે વ્યવસ્થા કરવા સદર્ભ કેમ્પેન સ્વચ્છ ભારત મિશન અંતર્ગત.

એક તરફ વાળા: એએસ તીસાચકલીંગ ડુ. પ્રા. લિ. એ - ૫૦૬ વન વર્લ્ડ કેપિટલ, બોડકરોવ, બખાલાવાદ.

બીજી તરફ વાળા: સરપંચ શ્રી શેરથા ગામ પંચાયત.

ત્રીજી તરફ વાળા: ઇન્ડિયન ક્રામેસ ફેટિલાઇઝર કોઓપરેટિવ લિમિટેડ (ઇફકો), કલોલ, કમુતી નગર, ગાંધીનગર, ગુજરાત - ૩૮૨૪૨૭


બંધી અને એક બીજા ની સહમતી થી વચ્ચે ઉપરોક્ત વિષય ના સંદર્ભ માં નીચે મુજબ ની કાર્યવાહી કરવા તેવાર છીએ. ત્રીજી તરફ વાળા પી બ્લાઈ બી એ મહે એક તરફ વાળા કલ્ચુ અને એ કાર્યરત છે.

એક તરફ વાળાની જવાબદારી:


- સિંગલ વુસ્ટ પ્લાસ્ટીક વેસ્ટ ના કલેક્શન ના વ્યવસ્થાપન માટે બીજી તરફ વાળા ને મદદ કરવામાં આવશે.
- ગામ માં વેક્યુનિટ કલોલ પોસ્ટ કન્યુમર મુસડ પ્લાસ્ટીક વેસ્ટ રીસાયકલીંગ તથા ડિસ્પોઝલ કરવા ની વ્યવસ્થા કરવામાં આવશે.
- ગામ માં શ્રી નીકોલ તા પોસ્ટ કન્યુમર મુસડ પ્લાસ્ટીક વેસ્ટ ના કલેક્શન માટે મેનીફેસ્ટ બનાવી આપવામાં આવશે.
- ગામ માં શ્રી નીકોલ તા પોસ્ટ કન્યુમર મુસડ પ્લાસ્ટીક વેસ્ટ ના જમ્કની માહિતી પર્ચોવરણની પ્રારંભિક કચેરી એ મોકલી આપવામાં આવશે.

બીજી તરફ વાળાની જવાબદારી:

- ગામ માં નિકોલ પોસ્ટ કન્યુમર મુસડ પ્લાસ્ટીક વેસ્ટ લેગો કરી છૂટી પાડવાની વ્યવસ્થા કરવામાં આવશે.
- પોસ્ટ કન્યુમર મુસડ પ્લાસ્ટીક વેસ્ટ ને એક જગ્યા એ સંગ્રહ કરવાની વ્યવસ્થા કરવામાં આવશે.
- પોસ્ટ કન્યુમર મુસડ પ્લાસ્ટીક વેસ્ટ નો નિકાલ પર્ચોવરણ ને હાનિ ના પોરથી તે માટે સોરી સેગ્રીગેશન પ્રિયમ નો પાલન કરાવી પ્લાસ્ટીક નો સંગ્રહ અલગ અલગ કરાવી પુરવણ નિયંત્રણ વિભાગ ના ડ્રા અમુમતી અપેલ પ્લાસ્ટીક રીસાયકલર ને આપવું.
- મુસડ પ્લાસ્ટીક નો ઉપયોગ ઘટાડવા માટે તથા પ્લાસ્ટીક રીસાયકલ કરવા માટે જનજાગૃતિ કાર્યક્રમોનું આયોજન કરવા માટે એક તરફ વાળા ને મદદ કરવા માં આવશે.
- ગામ પંચાયત ડ્રાસ સિંગલ વુસડ પ્લાસ્ટીક નો ઉપયોગ નહીં કરવા તથા પોસ્ટ કન્યુમર મુસડ પ્લાસ્ટીક વેસ્ટ ને એક તરફ વાળા ને આપવાની ઠરાવ પસાર કરવામાં આવશે.



એક તરફ વાળા
એએસ તીસાચકલીંગ ડુ. પ્રા. લિ.
Official Seal



સરપંચ
શેરથા ગામ પંચાયત
સરપંચ શ્રી શેરથા ગામ પંચાયત

Banners for creating awareness:

Dhanaj, Gujarat, India
 5GPC+GH8, Dhanaj, Gujarat 382725, India
 Lat 23.188682°
 Long 72.521037°
 28/12/21 11:01 AM

Dhanaj, Gujarat, India
 5GWC+543, Dhanaj, Gujarat 382725, India
 Lat 23.193995°
 Long 72.520298°
 28/12/21 10:10 AM

Shertha, Gujarat, India
 Villa-12, KASTURI NAGAR, Kasturi Nagar, Shertha, Gujarat 382423, India
 Lat 23.192176°
 Long 72.551723°
 22/12/21 02:15 PM

Shertha, Gujarat, India
 Ahmedabad - Palanpur Highway Rd, Shertha, Gujarat 382423, India
 Lat 23.196032°
 Long 72.547657°
 23/12/21 01:35 PM

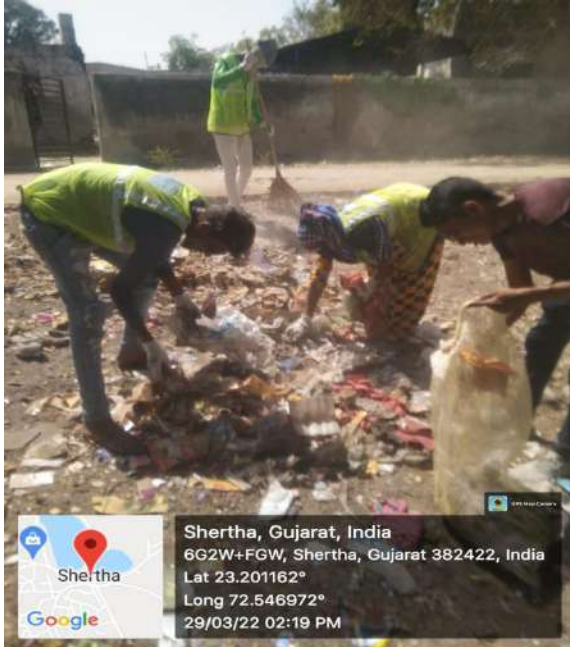
Banners for creating awareness:



Photographs showing Plastic Waste Collection Activity:

Shertha Village:

Before:



After:



Dantali Village:

Before:



After:



Photographs showing Plastic Waste Collection Activity:

Saij Village:

Before:



After:

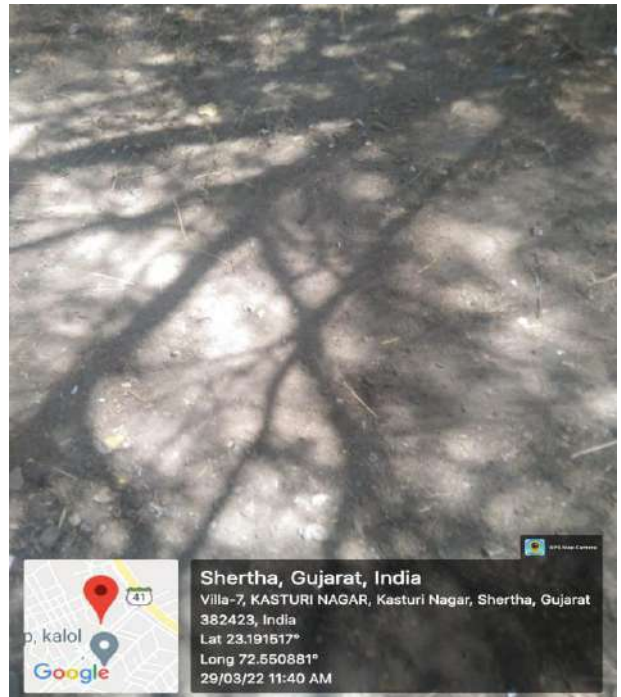


Shertha Para Village:

Before:



After:



Photographs of showing Plastic Waste Collection Activity:

Dhanaj Village:

Before:



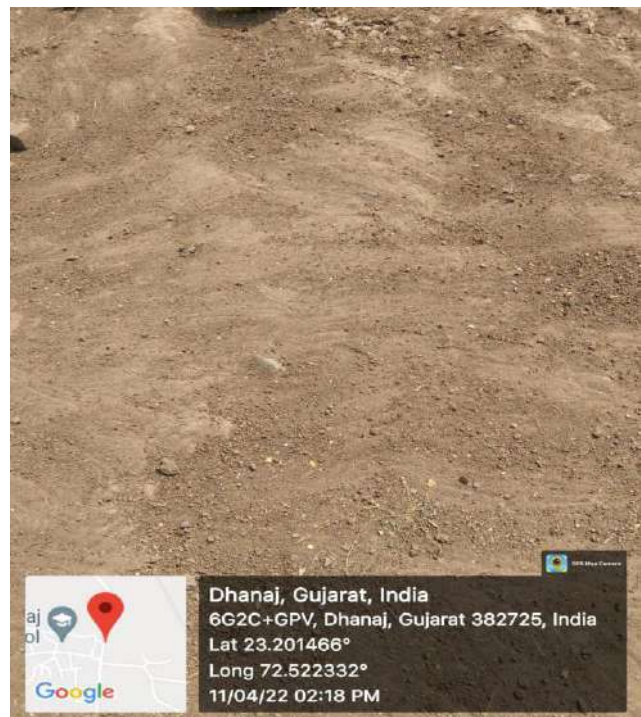
After:



Before:



After:



Pamphlets Distribution to create Awareness on Wet & Dry Wastes:

Shertha:



Dhanaj:



Saij Village:



Shertha Para:



Dantali:



As a part of this campaign, Public Engagement Activity program was conducted on 25.2.2022 at J.M.J School, Shertha village in which Officials from IFFCO, GPCB , United Nations Environment Program , Sarpanch and residents of those villages and team from recycling agency took part in the event

Event Organised at at Smt. J.M.G High School, Shertha:
(Some of the glimpses)

Inauguration of Event

Starting with holy worship of Goddess Saraswati.



Drawing Competition on “Beat Plastic Pollution” among of Children from those five villages:



Prizes & Trophies for Winners of Competition:



Drawing Kits Distribution to students during the event:



Plastic Lao - Thela & Pencil Box Pao:



Appreciating The Dignitaries:



Interactive session and address to audience:



PLEDGE TO REDUCE, REUSE & RECYCLE:



Plastic Waste Collection

Post-consumed waste generated in the selected villages have been collected and stored at the MRF facility developed at Dantali Village. Segregation of the wastes was also conducted, and then was further transported to WMA M/s Aztec Recycling Hub Pvt Ltd for the further recycling process in compliance with GPCB Norms

Details of Plastic Waste Collection in 5 villages (in kgs)

Month	Dantali	Dhanaj	Saij	Shertha	Shertha Para	Total in kgs
Dec 2021	80	87	85	76	77	405
Jan 2022	136.7	107.2	119.1	112.5	128.5	604
Feb 2022	143.1	139.1	139	173.25	151.2	745.65
Mar 2022	214.4	212.06	205.1	225.64	219.7	1076.9
Apr 2022	89.8	92	85	79.3	85.3	431.4
Total in kgs	664	637.36	633.2	666.69	661.7	3262.95

Management of IFFCO-Kalol Unit is grateful to GPCB, Govt of Gujarat and GOI and to all those who are directly and indirectly involved in this initiative. They all have given an opportunity to contribute to this Noble cause. IFFCO shall continue to be part of such grand projects / initiative for the benefits of citizens of Gujarat as well as India



पूर्णतः सहकारी स्वामित्व
Wholly owned by Cooperatives



ANNEXURE XV B
STEPS TOWARDS BAN ON SINGLE USE PLASTIC
AT IFFCO KALOL

ANNEXURES

इंडियन फारमर्स फर्टिलाइजर कोआपरेटिव लिमिटेड
कलोल इकाई
परिपत्र

कलोल/(कार्मिक एवं प्रशासन)/2024

दिनांक:13/09/2024

**विषय: इफको कलोल संयंत्र एव टाउनशिप को प्लास्टिक मुक्त और
स्वच्छ बनाने की अपील।**

हर वर्ष की भांति इस वर्ष भी इफको कलोल संयंत्र एवं कस्तूरीनगर परिसर में स्वच्छता पखवाड़ा के अवसर पर स्वच्छता के प्रति जागरूक बनाने के लिए विविध कार्यक्रमों का आयोजन किया गया। कस्तूरीनगर वासियों को सिंगल यूज प्लास्टिक के उपयोग को तत्काल प्रभाव से बंद करने का अनुरोध किया गया है। सभी निवासियों से निवेदन किया गया है कि वे सिंगल यूज प्लास्टिक का प्रयोग बाजार से समान ले आने के लिए नहीं करेंगे तथा इसकी जगह पर पर्यावरण के अनुकूल कपड़े के बैग का प्रयोग करेंगे। इसी को ध्यान रखते हुये प्रबंधन ने कस्तूरीनगर शॉपिंग सेंटर में कपड़े के बैग की स्वचालित मशीन उपलब्ध कराई है।

सभी कस्तूरीनगर वासियों से अनुरोध है कि वे इस कपड़े के बैग की स्वचालित मशीन का उपयोग अपनी आवश्यकता के अनुसार करे। आप सभी लोगो के पहल से ही हम एक स्वच्छ टाउनशिप, स्वच्छ शहर, स्वच्छ राज्य एव एक स्वच्छ देश बनाने में अपना सहयोग कर सकते हैं।

इसके लिए आप सभी का सहयोग अपेक्षित है।


(राजेश सिंह सिसोदिया) 13/09/24
उप महाप्रबन्धक(कार्मिक एवं प्रशासन)

वितरण:

महाप्रबंधक (तकनीकी)/ सभी संयुक्त महाप्रबंधक/सभी विभागाध्यक्ष/ अनुभागाध्यक्ष/ अध्यक्ष एवं महामंत्री- आई.के.एस एवं आई.ओ.ए / समस्त कस्तूरीनगरवासी/ -कलोल यूजर्स के माध्यम द्वारा।

प्रतिलिपि: महाप्रबंधक (इकाई प्रमुख) - सादर सूचनार्थ प्रेषित।

CLOTH VENDING MACHINE AT SHOPPING CENTER – KASTURINAGAR (IFFCO KALOL TOWNSHIP)



ANNEXURE XV C
REPORT ON
ENVIRONMENT WEEK CELEBRATION
AT IFFCO KALOL



पूर्णतः सहकारी स्वामित्व
Wholly owned by Cooperatives



पूर्णतः सहकारी स्वामित्व
Wholly owned by Cooperatives

World Environmental Week Report – 2025

(30th May 2025 – 5th June 2025)

Environment & Pollution Control Department

IFFCO - Kalol Unit





पूर्णतः सहकारी स्वामित्व
Wholly owned by Cooperatives

Following programs were organised as part of the World Environment Week 2025. Employees, trainees, contract workmen and township residents participated with great enthusiasm in each activity, extending their wholehearted support towards promoting environmental awareness and a sustainable future.

Date	Name of the Programs	Time	Venue	Participation / Remarks
30/05/2025 (Friday)	Pledge taking ceremony to be administered by Unit Head	08:10 hrs	Near Time office	All employees & Trainees
31/05/2025 (Saturday)	Tree Plantation at Township.	09:00 hrs	IFFCO Township	Sr. Citizens of township (Ashirwad Group).
01/06/2025 (Sunday)	Poster Competition for Employees' children	09:30 hrs to 10:30 hrs	Township School	Poster Competition: Four Categories 1. For Children studying in Std. - II & below 2. For Children studying in Std. – III & IV 3. For Children studying in Std. – V & VI 4. For Children studying in Std.- VII, VIII & IX
02/06/2025 (Monday)	Slogan Competition (Topic: Solution to end plastic pollution)			All employees & Trainees
03/06/2025 (Tuesday)	Awareness Talk on "Plastic Pollution"	10:30 Hrs	Township Shopping Center	Shopkeepers & Cont. Workmen
05/06/2025 (Thursday)	Concluding Ceremony and Prize distribution.	15:30 hrs	Training Center	All Employees, Trainees, contract workmen and winners of various competitions

Under the leadership of Shri Sandeep Ghosh, Executive Director, Kalol Unit, World Environment Week 2025 was celebrated with great enthusiasm and active participation. At IFFCO Kalol, it has become a tradition to dedicate an entire week every year to environmental initiatives, with the objective of enhancing awareness and inspiring collective responsibility towards environmental protection.

The theme for World Environment Day 2025 was “Ending Plastic Pollution”. This theme served as a global call to action, urging individuals, communities, businesses, and governments to take concrete measures to reduce plastic consumption, encourage reuse, and strengthen recycling practices. Guided by this theme, World Environment Week was observed at IFFCO Kalol from 30th May 2025 to 5th June 2025, through a series of activities designed to promote sustainability and community participation.

Pledge Ceremony:

Pledge taking ceremony was organised near Time office on 30th May 2025.



प्रतिज्ञा

“मैं सत्यनिष्ठापूर्वक प्रतिज्ञा करता हूँ कि मैं पर्यावरण संरक्षण के लिए, व्यक्तिगत रूप से और परिवार एवं इकाई स्तर पर सामूहिक रूप से सतत् प्रयास करूँगा।

मैं यह भी प्रतिज्ञा करता हूँ कि, अपने जीवन में वृक्षरक्षा एवं वृक्षारोपण में योगदान देकर,

अपनी आने वाली पीढ़ी को स्वच्छ पर्यावरण देने का भरपूर प्रयास करूँगा।”

Tree Plantation at Township:

As a part of the celebration, Plantation of trees saplings was organised at Kasturinagar, IFFCO Township on 31st May 2025. Shri BPS Mehta, General Manager (Tech.) and other Senior executives of IFFCO Kalol Unit, Officer Regional Office, GPCB Gandhinagar along with the President and General secretary of IFFCO-Kalol Karmachari Sangh (IKS) and Senior citizens of Kasturi Nagar took part in the tree plantation program. The initiative highlighted IFFCO's continued commitment towards environmental conservation and community involvement, creating awareness among all stakeholders about the importance of green cover in combating climate change and pollution.





Tree Plantation in Township Premises on 31st May 2025

Poster Competition and Slogan Competition:

On 01.06.2025, a Poster Competition for employees' children was organized at H.B. Kapadia School, Kasturinagar, as part of the World Environment Week celebrations. Several children of IFFCO employees actively participated in the competition with great enthusiasm and creativity.

The theme of the competition revolved around environmental protection, plastic pollution, and sustainable living practices. The young participants showcased their ideas through colorful and impactful posters, reflecting their awareness and concern for nature. The event encouraged artistic expression also helped inculcate the values of environmental stewardship among the younger generation. All participants were appreciated for their efforts. Committee members present applauded the initiative, which served as a motivating platform for children to engage in meaningful activities.





Results of various competitions are as under:

Winners of Poster Competition for Employee's Children:			
First Group (Standard II & below)			
Sr. No.	Prize	Name	Father's Name & Section/Department
1	First	Miss Vishwa Raval	Mr. Vijay Raval – NFP - Instrument
2	Second	Miss Krisha Jadeja	Mr. Pragnesh Jadeja - Medical
3	Third	Miss Snigdha Maurya	Mr. Akhilesh Maurya - Mech. Maint.
4	Consolation	Miss Tanisha Parmar	Mr. Piyush Parmar – Electrical
5	Consolation	Master Dhyan Patel	Mr. Vinay Patel - Mech. Maint.
Second Group (Standard III & IV)			
1	First	Miss Nayra Chaudhary	Mr. Upendra Chaudhary - Instrument
2	Second	Master Raghav Kumar	Mr. Niraj Kumar – Mech. Serv.
Third Group (Standard V & VI)			
1	First	Master Jaival Patel	Mr. Amit Patel - Laboratory
2	Second	Master Sharvil Patel	Dr. Alpesh Patel – Medical
3	Third	Master Rudra Patel	Mr. Manish Patel – Mech. Maint.
4	Consolation	Master Devyanshu Dantani	Mr. Ravi Dantani – Prod. Handling
Fourth Group (Standard VII, VIII & IX)			
1	First	Master Pranshu Patel	Mr. Chetan Patel - Ammonia / Prod.
2	Second	Master Krishiv Garala	Mr. Dipak Garala – Medical
3	Third	Miss Prachi Rajvanshi	Mr. Piyush Parmar – Electrical
4	Consolation	Master Aaryan Patel	Mr. Krunal Patel – NFP – Mech. Maint.

On 02.06.2025, a Slogan Competition was organized for employees. The competition was designed to provide a creative platform for participants to express their thoughts on the pressing global issue of plastic pollution. The event witnessed enthusiasm and participation, with employees coming forward with insightful, thought-provoking, and powerful slogans. Each entry carried a unique perspective - some highlighted the urgency of reducing single-use plastics, while others focused on innovative eco-friendly alternatives and the collective responsibility to protect our planet for future generations. The slogans were not just words but mini-manifestos of change, blending creativity with environmental consciousness. Many of them carried appeals, strong calls to action, and imaginative expressions that left a lasting impression on the audience and judges.

A panel of judges carefully evaluated the entries, and the most impactful slogans were recognized for their originality, relevance, and creativity. The competition turned out to be a meaningful reminder of how simple yet powerful messages can inspire a larger movement towards sustainability.

Winners of Slogan Competition for Employees:				
Slogan in English Language:				
Sr. No.	Prize	Name	Section/ Department	Slogan
1	First	Mrs. Menka Mishra Singh	Purchase / Materials	BAN SINGLE USE PLASTIC FROM ITS BIRTH, EMBRACE A PLASTIC FREE CLUTURE TO PROTECT OUR EARTH.
2	Second	Mr. R K Chauhan	Mech. Maint	USE BIO-DEGRADABLE MATERIAL MORE PLASTIC POLLUTION WILL BE NO MORE.
3	Third	Mr. Abhay Pratap Singh	NFP/ Production	AVOID SINGLE USE PLASTIC AND DISPOSABLES, CHOOSE ENVIRONMENT FRINDLY OPTIONS WHICH ARE REUSABLE.
Slogan in Hindi Language:				
1	First	Mr. Bhavik Shukla	Urea / Production	प्लास्टिक है धीमा जहेर । पृथ्वी पर बरपेगा कहेर ॥
2	Second	Mr. B N Raiyani	NFP/ Electrical	न सड़े न गले। प्लास्टिक पर्यावरण का नाश करे॥
3	Third	Mrs. Bhakti Patel	NBRC	एक कदम प्लास्टिक से दूर, लाएगा जीवन में नूर।

Slogan in Gujarati Language:				
1	First	Mr. Dipak Garala	Medical	પ્લાસ્ટિકને ના સમજો ક્યારેય દોસ્ત, પ્લાસ્ટિક છે પ્રદૂષણનો મુખ્ય સ્રોત.
2	Second	Mr. J B Ajani	NFP/ Instrument	પ્લાસ્ટિક છે અભેદને શાસ્વત દાનવ, નાશ કરી રહ્યો છે પૃથ્વી અને માનવ.
3	Third	Mr. Chetan Patel	Ammonia/ Production	પ્લાસ્ટિક નથી મારો વ્હાલ, ઘરતી સાચવવાનો છે ખ્યાલ.

Awareness Talk on Plastic Pollution:

On 03.06.2025, an Awareness Talk on “Plastic Pollution” was organized at the Shopping Center, Kasturinagar Township, for shopkeepers, contract workmen, and residents.

The session aimed to sensitize the participants about the harmful impacts of plastic usage on human health, environment, and biodiversity. The importance of reducing single-use plastic, promoting segregation at source, encouraging cloth/jute bags, and proper disposal practices was highlighted. Participants were encouraged to take a pledge to minimize plastic usage in their daily life. Practical examples, such as alternatives to plastic packaging and the benefits of recycling, were also discussed.

The program received active participation, with queries from shopkeepers regarding eco-friendly alternatives and disposal mechanisms. The session concluded with a collective commitment from participants to support a cleaner and greener township.





Concluding Ceremony and Prize distribution:

Prize distribution and concluding ceremony was organized on 05.06.2025 at Training center. Executive Director Shri Sandeep Ghosh, General Managers, Jt. General Managers, President and General secretary of IKS & IOA and other Senior executives of IFFCO Kalol Unit participated in the function. S V Malsattar, Regional Officer, GPCB Gandhinagar was present as Chief Guest. Shri Brijesh Chauhan, GPCB was also present.

Shri S. Mohan, Jt. GM (Environment & Pollution Control), Co-ordinator of World Environment Week Celebrations 2025 highlighted the Environment performance of IFFCO-Kalol complex for the year 2024 – 25. He emphasized the importance of carrying forward the spirit of environmental consciousness and urged all employees to integrate sustainable practices into their professional and personal lives.

Shri Sandeep Ghosh, Executive Director, drew attention to the growing threat of plastic pollution, describing it as one of the most pressing environmental challenges of our time. He emphasized that plastics, particularly single-use plastics, have deeply penetrated ecosystems, harming soil, water, marine life, and ultimately human health. He stressed that addressing this issue requires collective responsibility, where industries, communities, and individuals must work hand in hand. He urged employees to actively practice the principles of reduce, reuse, and recycle, and to explore sustainable alternatives to plastic in their daily routines.

Shri Ghosh further highlighted that even small, conscious changes, such as carrying reusable bags and bottles, avoiding plastic cutlery, and segregating household waste, can contribute significantly towards curbing plastic pollution. He called upon

everyone to transform these actions into habits, thereby helping to protect the planet for future generations.

In his address, Shri Brijesh Chauhan, GPCB Gandhinagar, expressed his appreciation for the growing environmental awareness among the children of IFFCO employees. He also commended the initiative of celebrating World Environment Day as a week-long program at IFFCO Kalol, rather than restricting it to a single day, thereby providing greater scope for awareness and participation.

The celebration concluded with vote of thanks by Shri T. Swamy, DGM (PE).







Few glimpses of the concluding ceremony of World Environment Week 2025
held on 5th June 2025 at Training Centre.

ANNEXURE XVI
MEASURES IMPLEMENTED FOR ENERGY
CONSERVATIONS

ANNEXURES

Annexure – XVI

Measures Implemented for Energy Conservation during last 04 Years:

Sr. No.	Energy conservation steps implemented during the Year 2020-21	Expenditure incurred Rs. Lakhs	Saving in Natural resources (NG, Naphtha, FO, water etc.)	
			kW/day	Rs. lakhs Per Year
	IFFCO Plant			
1	Replacement of 20 nos. of conventional street light of 70 W with hybrid solar light fitting of 35 W.	0.60	11.2	0.35
2	Replacement of 50 nos. conventional 2X36W light fittings with 34W LED light fittings in buildings.	1.6	20	0.62
3	Replacement of 100 nos. conventional 36W light fittings with 15W LED light fittings in buildings.	0.60	11	0.34
4	Replacement of 150 nos. conventional 500W flood light fittings with 35W LED light fittings in shutdown for temporary lighting provision (one time saving in every ATA)	0.93	279	0.47
	Total	3.73		1.78
	Township			
1	Replacement of 06 nos. conventional 400W flood light with 150W LED flood light in high mast tower	0.54	12	0.37
2	Replacement of 100 nos. 70W Ceiling fan with 53W energy efficient fan at township quarter.	1.5	12	0.37
3	Replacement of 100 nos. 35W Ceiling fan with 9W energy efficient fan at township quarter.	0.085	31.2	0.97
	Total	2.125		1.71

Sr. No.	Energy conservation steps implemented during the Year 2021 - 22	Expenditure incurred Rs. Lakhs	Saving in Natural resources (NG, Naphtha, FO, water etc.)	
			kW/day	Rs./day
	IFFCO Plant			
1	Replacement of conventional street light fitting of 70 W with hybrid solar light fitting of 35 W at street light	0.6	11.2	95
2	Replacement of conventional 2X36W light fittings with 34W LED light fittings in buildings	1.6	20	170
3	Replacement of conventional 36W light fittings with 15W LED light fittings in buildings	0.6	5.5	47
	Total	2.8		312
	Township			
1	Replacement of conventional 400W flood light with 150W LED flood light in high mast tower	0.54	12	102
2	Replacement of 70W Ceiling fan with 53W energy efficient fan at township quarter	0.75	6	51
3	Replacement of 15W light fittings with 9W energy efficient LED light fittings at township quarter	0.085	16	139
	Total	1.375		292

Implemented during 2022 – 23:

Plant:

- ✓ Replacement of conventional light fittings with LED luminaries in purchase & F&A section.

Township:

- ✓ Replacement of sign boards with latest LED sign boards in township to save energy
Control of LED sign boards with digital timer for limited time during 19:00 Hrs to 22:30 Hrs for energy saving with saving detailed below:

Power saving = 150W + 20W

Energy saving per day = 170x7=1190Whr

Annual energy saving = 1190 x365 = 434350Whr = 434.35 units

Rate per unit = Rs 8.5

So annual monetary saving per fitting = 8.5 x 434.35 = Rs 3691.975

Total 24 nos of LED fittings in high mast towers & 4 numbers of LED sign boards are switched OFF for whole night by using digital timer.

- ✓ Replacement of conventional ceiling/exhaust fans with energy efficient fans in quarters and public buildings.

Implemented during 2023 – 24:

- ❖ Replacement of bare conductor with coated conductor in overhead lines (Approx. 5KM) connecting from IFFCO plant to IFFCO township Kasturi Nagar to enhance safety and resulting less tripping causing energy saving due to decrease in frequent starting of equipment due to power interruption.
- ❖ Installation of new Un-interrupted power (UPS) supply at township sub-station to avoid tripping of power in quarters as well as HT& LT panel control resulting in reducing energy loss.
- ❖ Replacement of energy efficient fans & LED light fixtures in township quarters to save energy.



ANNEXURE XVII & XVII A, B
DETAILS OF NOISE CONTROL MEASURES
&
NABL TEST REPORTS

Details of Noise Control Measures

IFFCO Kalol has various machines like dryers, blowers, vacuum pumps, process pumps, turbines, compressors etc. along with DG sets, Boiler, which generates noise. These machines are already inbuilt with appropriate control measures to maintain the noise levels within limits.

Generally, noise level of working place is within the limit as specified in the standard of MoEF&CC. However, Kalol unit have issued earmuffs/ plugs to all concerned employees for usage while working in noisy environment. The equipment like Compressors, blowers, fans, various drums and elevators are provided with Acoustic pad insulation / Acoustic enclosures to limit the noise level as per the standard of MoEF&CC. Noise level at Boundary Fence are controlled by providing green belt throughout the boundary wall of plant. Wherever required vent silencers are installed to reduce noise level in the plant. Details of Noise Control Devices is given below:

Noise Control Devices

Plant	Noise Control Devices	Method of control
Noise Abatement in Plant Area	Vent Silencers, Insulations and tree plantation / inside & outside the plant	<ul style="list-style-type: none"> • Silencers have been provided at vent stacks to reduce the noise level. • Also, to reduce noise level in compressor area, the gas lines are insulated. • Green belt in the plant and all around the plant boundary also contribute positively in minimizing the impact on noise level. • Diesel Generation set is operated once in a week for trail purpose. Acoustic enclosure has been provided in the Diesel Generator Room. • Issued ear muffs / plugs to all the employees and usage of ear muffs / plugs while working in noisy environment is already in practice.
		
Vent Silencer in Ammonia Plant		Vent Silencer in BHEL Boiler
Photographs of Noise Control System		

Stride Green Technologies LLP

Test Report

F/OPN/12
Issue No.: 02
Page 1 of 2

Noise Measurement

Report No.	SGT/N/09/147/25-26	Date of Issue	25/09/2025
Name and address of customer	M/s. Indian Farmers Fertiliser Cooperative Ltd. Plot No. 712/846,855,856 of Saij, 17-37 of Dhanej, P.O. Kasturinagar, Kalol, Ta.-Kalol, Dist.- Gandhinagar.		
Discipline	Chemical	Group	Atmospheric Pollution
Sample Description	Noise Level	Sampling Location	As per Below location
Date of Sampling	18/09/2025	Time of sampling	06:00 AM to 10:00 PM
Type of sampling	Ambient	Sampling By	SGT Team
Date of testing	18/09/2025	Sampling Method	IS 9989:1981
Location of test performed	At Site	Sample ID	SGT/N/09/147
Sampling plan	E/SYS/09	Environmental Condition during sampling	Clear

Equipment used for testing

Equipment Name	Sound Level Meter	Equipment Id No.	200801790
Equipment Make / Model	Metravi / SL-4015	Calibration due date	19-02-2026

Test Results

Sr. No	Name of Location	OBSERVATION DAY TIME MONITORING	
		dB(A)	Norms dB(A)
1.	Nr. R&D Lab	60.5	75
2.	Nr. System	66.7	75
3.	Nr. Training Building	65.6	75
4.	Nr. Time Office	58.9	75
5.	Nr. Boiler Control Room	69.2	75
6.	Nr. Urea Control Room	65.9	75
7.	Nr. Ammonia Control Room	69.4	75
8.	Nr. Railway Office	63.8	75
9.	Nr. Fire & Safety	64.8	75
10.	Nr. Central Lab	58.1	75
11.	Nr. Instrument	62.1	75
12.	Nr. Technical Building	60.2	75
13.	Nr. Store	65.4	75

	
Mr. Jignesh Prajapati Chemist Tested By	Mr. Sandip Patel Technical Manager Reviewed and Approved By

End of Test Report

Stride Green Technologies LLP	
Test Report	F/OPN/12 Issue No.: 02 Page 2 of 2
Noise Measurement	

Report No.	SGT/N/09/147/25-26	Date of Issue	25/09/2025
Name and address of customer	M/s. Indian Farmers Fertiliser Cooperative Ltd. Plot No. 712/846,855,856 of Saij, 17-37 of Dhanej, P.O. Kasturinagar, Kalol, Ta.-Kalol, Dist.- Gandhinagar.		
Discipline	Chemical	Group	Atmospheric Pollution
Sample Description	Noise Level	Sampling Location	As per Below location
Date of Sampling	18/09/2025	Time of sampling	06:00 AM to 10:00 PM
Type of sampling	Ambient	Sampling By	SGT Team
Date of testing	18/09/2025	Sampling Method	IS 9989:1981
Location of test performed	At Site	Sample ID	SGT/N/09/147
Sampling plan	E/SYS/09	Environmental Condition during sampling	Clear

Equipment used for testing

Equipment Name	Sound Level Meter	Equipment Id No.	200801790
Equipment Make / Model	MetraVi / SL-4015	Calibration due date	19-02-2026

Test Results

Sr. No	Name of Location	OBSERVATION DAY TIME MONITORING	
		dB(A)	Norms dB(A)
14.	Nr. Dispensary	61.0	75
15.	Nr. B & MH Control Room	68.8	75
16.	Nr. Ammonia Maintenance	66.1	75
17.	Nr. Railway Gate No 2	70.6	75

Remarks →

- Test results relates to the sample tested only.
- Test Report shall not be reproduced except in full, without written approval of the Laboratory.

	
Mr. Jignesh Prajapati Chemist Tested By	Mr. Sandip Patel Technical Manager Reviewed and Approved By

End of Test Report

Stride Green Technologies LLP					
Test Report				F/OPN/06 Issue No.: 03 Page 1 of 1	
Ambient Air Quality					
Name and Address of Customer	M/s. Indian Farmers Fertiliser Cooperative Ltd. Plot No. 712/846,855,856 of Saij, 17-37 of Dhanej, P.O. Kasturinagar, Kalol, Ta.- Kalol, Dist.- Gandhinagar.				
Discipline	Chemical	Group	Atmospheric Pollution		
Report No.	SGT/AA/09/158/25-26	Date of Issue	25/09/2025		
Sample Description	Ambient Air	Sampling Location	Near Training Centre		
Date and time of sampling start	19/09/2025 09:56 Hrs.	Date and time of sampling finish	20/09/2025 10:26 Hrs.		
Sample Receipt Date	20/09/2025	Sampling By	SGT Team		
Sampling Procedure	IS 5182	Sample ID			
Location of test performed	At Laboratory	Wind Direction	NW		
		Wind Speed (m/s)	0.2 -3.1		
Environmental Condition during testing	25 ± 2 °C	Environmental Condition during sampling	Clear		
Condition of sample during receipt	Satisfactory	Sampling plan	E/SYS/09		
Test Start Date	20/09/2025	Test Completion date	20/09/2025		
Test Results					
Sr. No.	Parameters	Unit	Test Method	Results	Limit (as per GPCB)
1.	Particulate Matter (PM ₁₀)	µg/m ³	IS 5182 (Part 23): 2006	59.6	100
2.	Particulate Matter (PM _{2.5})	µg/m ³	IS 5182 (Part 24): 2019	29.8	60
3.	Sulphur Dioxide (SO ₂)	µg/m ³	IS 5182 (Part 2): 2001	11.7	80
4.	Nitrogen Dioxide (NO ₂)	µg/m ³	IS 5182 (Part 6): 2006	17.5	80
5.	Ammonia (NH ₃)	µg/m ³	IS 5182 (Part 19):1982	4.30	400
Remarks →					
<ul style="list-style-type: none"> • Test Report shall not be reproduced except in full, without written approval of the Laboratory. • Sample will be disposed after 15 days from the date of issue of the report unless agreed with the customer. • Opinion & Interpretation is not given. Decision rule is not applicable. 					

	
Mr. Jignesh Prajapati	Mr. Sandip Patel
Chemist	Technical Manager
Tested By	Reviewed and Approved By

----- End of Test Report -----

Stride Green Technologies LLP	
Test Report	F/OPN/06 Issue No.: 03 Page 1 of 1
Ambient Air Quality	

Name and Address of Customer	M/s. Indian Farmers Fertiliser Cooperative Ltd. Plot No. 712/846,855,856 of Saij, 17-37 of Dhanej, P.O. Kasturinagar, Kalol, Ta. Kalol, Dist. Gandhinagar.		
Discipline	Chemical	Group	Atmospheric Pollution
Report No.	SGT/AA/09/157/25-26	Date of Issue	25/09/2025
Sample Description	Ambient Air	Sampling Location	Near Cooling Tower
Date and time of sampling start	19/09/2025 10:36 Hrs.	Date and time of sampling finish	20/09/2025 10:36 Hrs.
Sample Receipt Date	20/09/2025	Sampling By	SGT Team
Sampling Procedure	IS 5182	Sample ID	SGT/AA/09/157
Location of test performed	At Laboratory	Wind Direction	NW
		Wind Speed (m/s)	0.2 -3.1
Environmental Condition during testing	25 ± 2 °C	Environmental Condition during sampling	Clear
Condition of sample during receipt	Satisfactory	Sampling plan	E/SYS/09
Test Start Date	20/09/2025	Test Completion date	20/09/2025

Test Results

Sr. No.	Parameters	Unit	Test Method	Results	Limit (as per GPCB)
1.	Particulate Matter (PM ₁₀)	µg/m ³	IS 5182 (Part 23): 2006	62.6	100
2.	Particulate Matter (PM _{2.5})	µg/m ³	IS 5182 (Part 24): 2019	33.4	60
3.	Sulphur Dioxide (SO ₂)	µg/m ³	IS 5182 (Part 2): 2001	12.2	80
4.	Nitrogen Dioxide (NO ₂)	µg/m ³	IS 5182 (Part 6): 2006	18.1	80
5.	Ammonia (NH ₃)	µg/m ³	IS 5182 (Part 19):1982	5.30	400

Remarks →

- Test Report shall not be reproduced except in full, without written approval of the Laboratory.
- Sample will be disposed after 15 days from the date of issue of the report unless agreed with the customer.
- Opinion & Interpretation is not given. Decision rule is not applicable.

 Mr. Jignesh Prajapati Chemist Tested By	 Mr. Sandip Patel Technical Manager Reviewed and Approved By
---	---

----- End of Test Report -----

Stride Green Technologies LLP	
Test Report	F/OPN/06 Issue No.: 03 Page 1 of 1
Ambient Air Quality	

Name and Address of Customer	M/s. Indian Farmers Fertiliser Cooperative Ltd. Plot No. 712/846,855,856 of Saij, 17-37 of Dhanej, P.O. Kasturinagar, Kalol, Ta.-Kalol, Dist.- Gandhinagar.		
Discipline	Chemical	Group	Atmospheric Pollution
Report No.	SGT/AA/09/148/25-26	Date of Issue	25/09/2025
Sample Description	Ambient Air	Sampling Location	Near R & D Lab
Date and time of sampling start	18/09/2025 10:00 Hrs.	Date and time of sampling finish	19/09/2025 10:00 Hrs.
Sample Receipt Date	19/09/2025	Sampling By	SGT Team
Sampling Procedure	IS 5182	Sample ID	SGT/AA/09/148
Location of test performed	At Laboratory	Wind Direction	NW
		Wind Speed (m/s)	0.2 - 2.9
Environmental Condition during testing	25 ± 2 °C	Environmental Condition during sampling	Clear
		Condition of sample during receipt	Satisfactory
		Sampling plan	E/SYS/09
Test Start Date	19/09/2025	Test Completion date	20/09/2025

Test Results

Sr. No.	Parameters	Unit	Test Method	Results	Limit (as per GPCB)
1.	Particulate Matter (PM ₁₀)	µg/m ³	IS 5182 (Part 23): 2006	61.8	100
2.	Particulate Matter (PM _{2.5})	µg/m ³	IS 5182 (Part 24): 2019	31.6	60
3.	Sulphur Dioxide (SO ₂)	µg/m ³	IS 5182 (Part 2): 2001	10.2	80
4.	Nitrogen Dioxide (NO ₂)	µg/m ³	IS 5182 (Part 6): 2006	17.1	80
5.	Ammonia (NH ₃)	µg/m ³	IS 5182 (Part 19):1982	22.3	400

Remarks →

- Test Report shall not be reproduced except in full, without written approval of the Laboratory.
- Sample will be disposed after 15 days from the date of issue of the report unless agreed with the customer.
- Opinion & Interpretation is not given. Decision rule is not applicable.

	
Mr. Jignesh Prajapati Chemist Tested By	Mr. Sandip Patel Technical Manager Reviewed and Approved By

----- End of Test Report -----

ANNEXURE XVIII
DETAILS OF CER EXPENDITURE

ECO - DEVELOPMENTAL MEASURES

1. Social Economic Development:

IFFCO Kalol is committed to contribute for the sustainable economic development of farmers, local community and Society at large to improve their quality of life. IFFCO Society has under taken various activities in the areas for community development, environment protection, horticulture, health care/ medical facilities and literacy enhancement / empowerment programmes. To bridge the gap between farming community & industry and for development of surrounding villages, IFFCO Kalol Unit has carried out development activities in surrounding villages like organizing Eye Camps& Blood Donation Camp, providing Drinking water system, various facilities in schools, construction of Dhobi Ghats etc., construction of Toilets in schools & villages, construction of cattle-sheds, providing practical training to farmers to improve their skills in crop & animal husbandry, organizing veterinary camps, farm mechanization, balance fertilization, use & distribution of bio-fertilizers, training for tailoring & embroidery, adult education programmes, fruits and vegetables preservation, etc. CSR activities are undertaken by IFFCO in two segments i.e., unit level and corporate level. Activities undertaken at Unit level as a part of IRDP / CSR in nearby area during last six years are mentioned below in Table 1.1

Sr. No.	Short Description, Village and Taluka	Cost Rs. Lakh
Expenditure during the year April 2025 – September 2025		
1	Donate for Procurement and installment of Solar Rooftop at Vasudev Kelavani Mandal, Gandhinagar	2.0
2	Donate for Procurement of Medical Equipment Laparoscope Camera in GRAM VIKAS MANDAL, PALIAD, Gandhinagar	2.0
3	Donate for Educational Material (Educational Wall Painting) in Shree Kadi Kumar Prathmik Shala No. 03, Gandhinagar	1.19
4	Donate for Study Material to Dr. Shree Hedgevar Smarak Seva Samiti, Gandhinagar	0.50
5	Donate for Construction of water tank and installation of slide and swing at Shree Shivam Primary School, Nardipur, Gandhinagar	1.93
6	Donate for Renovation of hall at Kalol Medical & Charitable Foundation, Kalol, Gandhinagar	2.0
7	Distribution of nutrition support kits to TB (tuberculosis) Patients	1.16
8	Distribution of Sewing Machines at 50% subsidy to Women from nearby villages	1.62
9	Honorarium to Stitching Instructor for class carried out for Women from nearby villages.	1.20
Total Amount		13.60



Wholly owned by Cooperatives

Sr. No.	Short Description, Village and Taluka	Cost Rs. Lakh
Expenditure during the year April 2024 – March 2025		
1	Donate Wheel chair for old age people for voting at Election Office.	0.88
2	Donate Medical equipment's to Gram Vikas Mandal, Village: Paliyad, Dist: Gandhinagar	1.74
3	To purchase R.O and Water cooler at Industrial Training institute, Gandhinagar.	1.83
4	Rain Shade provided at Anganwadi Kendra, Village: Shertha, Dist: Gandhinagar.	1.2
5	To purchase Note books to Bharat Seva Ashram, Ahmedabad.	0.33
6	Toilet block repairing/construction in Boys hostel of Kalol Taluka Thakor Samaj Kelavani Mandal Village: Palsana, Dist: Gandhinagar.	2.0
7	Provide study material to Dr Hedegwar smarak seva samiti, Gandhinagar.	0.29
8	To construct washing area at Gram Panchayat Village: Bhoyan, Dist: Gandhinagar.	2.0
9	For Repairing/Painting of Panchayat office Gram Panchayat Village: Ganpatpura, Dist: Gandhinagar.	1.9
10	For repairing work at Prathamik Shala of Morarji Nagar, Village: Pansar, Kalol, Dist: Gandhinagar.	1.5
11	For repairing work at P R Patel High School, Village: Ambapur, Dist: Gandhinagar.	0.3
12	Rain Shade, Fencing & Paver block provided at Arogya Kendra, Village: Dantali, Dist: Gandhinagar.	2.0
13	For PCC road, boundary wall & Paver Block at Karsanpura Anupam Prathmik Shala Village: Karsanpura.	2.0
14	Provide 05 nos. slotted angle racks, Gandhinagar.	0.13
15	For fabrication of parking shed, Gandhinagar.	2.0
	Total Amount	20.10



Wholly owned by Cooperatives

Sr. No.	Short Description, Village and Taluka	Cost Rs. Lakh
Expenditure during the year 2023 – 24		
1	Sadvichar School, Village: Uvarsad, Dist: Gandhinagar	0.26
2	Roti Maker machine provided at Hostel mess of Shri V H Gandhi Deaf & Dumb School, Modasa, Gujarat	2.0
3	Street lights provide at Village: Soja, Dist: Gandhinagar	2.0
4	Optical unit Auto Refractometer provided to Veda Sarvjanik hospital, Village: Veda Dist: Gandhinagar	2.0
5	High mask electrical Tower provided at Gram Panchyat Village: Ghamasana, Dist: Gandhinagar	2.0
6	LED Street Light provided Village: Dhanaj, Dist: Gandhinagar	2.0
7	Solar system of 10 kW provided at Manav Kalyan Trust for senior citizens home, Village: Nardipur, Kalol, Dist: Gandhinagar	2.0
8	Essential items provided to Home for underprivileged and orphan children's, Spurge foundation, Hariom Nagar, Motera, Ahmedabad	0.5
9	Nutrition kits to malnutrition children of Primary School children nearby villages, Kalol, Dist: Gandhinagar	19.24
10	Paver block provided at School, Village: Bhaupura, Dist: Gandhinagar	1.9
11	Solar system of 10 kW provided at Manthan Apang Kanya School Village: Hajipur Kalol, Dist: Gandhinagar	2.0
12	Toilet Block Repairing carried out in Morarjinagar Prathmik Shala Village: Pansar, Kalol, Dist: Gandhinagar	1.5
13	School Building Repairing carried out in P R Patel High School Village: Ambapur, Dist: Gandhinagar	2.0
14	Water cooler provided at Sanskar Tirth Kanya School, Village: Ajol, Dist: Gandhinagar	0.82
15	<ul style="list-style-type: none"> • 10 Nos of ceiling fans provided at SANSKAR TIRTH Village: Ajol, Dist: Gandhinagar • 3 nos of Computers were given to General Hospital Village: Mansa, Dist: Gandhinagar • 3 nos of Computers were given to N J L S Vidyalaya Village: Govindpura, Amreli • 1 no of Computers were given to Library of Village: Shertha, Dist: Gandhinagar • 3 nos of Computers were given to Adrash Vidyalaya, Village: Visatapura • 3 nos of Computers were given to Ved international School Vihar Village: Mansa • 1 no of Computers were given to Gram Panchayat village Jalud • 1 no of Computers were given to Bahuchara Prathmikshala 	Free of Cost
Total Amount		40.22
Sr. No.	Short Description, Village and Taluka	Cost Rs. Lakh



Wholly owned by Cooperatives

Expenditure during the year 2022 – 23		
1	Paver block provided at Sanskar Tirth, Village - Ajol, Dist: Gandhinagar	2.0
2	Shed provided at Cremation Ground of Dhanaj Gram Panchayat, Village - Dhanaj, Tal.- Kalol, Dist: Gandhinagar	2.0
3	RCC road constructed at Shertha Gram Panchayat Village - Shertha, Dist: Gandhinagar	2.0
4	Drinking Water Facility provided at Shri B H Patel High School, Village - Mathasur, Taluka – Kadi, Dist: Mehsana	2.0
5	Paver block provided at Smt J M G High School, Village - Shertha, Dist: Gandhinagar	2.0
6	Paver block provided at Adalaj Gram Panchyat premises Village Adalaj, Dist: Gandhinagar	1.8
7	Wire fencing provided at compound wall of Usamabad Prathamik Sala, Kalol, Dist: Gandhinagar	1.6
8	Scientific apparatus provided at Swami Vivekananda Education Trust, Kadi, Dist: Mehsana	1.0
9	Wire frame provided for protection of sapling planted nearby Saij village Dist: Gandhinagar.	1.0
10	Electrical poles installed roadside of Bhoyan village Dist: Gandhinagar	2.0
11	Electrical poles installed roadside of Dantali village Dist: Gandhinagar	2.0
12	Benches for class room of Moti Adraj Kanya Prathamik shala Dist: Gandhinagar	1.25
13	RCC road constructed at Saij Gram Panchayat Dist: Gandhinagar	2.0
14	Stabilizer for Operation Theater of Health care center of Gram Vikas mandal Village: Paliyad Dist: Gandhinagar	2.0
15	4 Toilet block Repairing work done of Prathamik Shala -Kalol	2.0
16	Baby care unit provided to Primary health centre Village: Uvarsad Dist: Gandhinagar	0.38
17	4 Nos of ceiling fans provided at SANSKAR TIRTH Village: Ajol, Dist: Gandhinagar	Free of Cost
	4 Nos of ceiling fans provided at Kalol Police Station, Kalol, Dist: Gandhinagar	
	3 nos of Computers were given to Child Welfare School, Dist: Gandhinagar	
	2 nos of Computers were given to Himmatpura Veda Prathamik Shala, Kalol, Dist: Gandhinagar	
	2 nos of Computers were given to Mithivadadhi Prathamik Shala, Patan	
	4 nos of Computers were given to Amrit Vidhya School, Kalol, Dist: Gandhinagar	
	2 nos of Computers were given to Rajmatat Higher Secondary School, Mansa, Dist: Gandhinagar	
	2 nos of Computers were given to Maruti Charitabale Trust, Dist: Gandhinagar	
	Total Amount	27



Wholly owned by Cooperatives

Sr. No.	Short Description, Village and Taluka	Cost Rs. Lakh
Expenditure during the year 2021 - 22		
1	Water cooler with RO unit provided at Police Station, Village – Adalaj	0.32
2	Shed for cows & injured animals provided at Bhatia Foundation Trust	2.0
3	High mask electrical Tower provided at Gram Panchyat Village - Dhanaj	2.0
4	Paver block provided at school premises Vasudev Grant in aid Residential Primary School Kalol, Gandhinagar	1.18
5	Shade provided and compound wall constructed at PHC, Gram Aarogay Kendra, Village – Dantali	2.0
6	Compound wall constructed at cremation area of Pratappura Gram Panchyat Tal.- Kalol. Dist. – Gandhinagar	2.0
7	Paver block provided at Ambapur Prathamik Shala, Village – Ambapur, Dist. - Gandhinagar	2.0
8	Santitation work carried out in Shri Bhoyanarathor Prathamik Shala toilet blocks, Village – Bhoyanarathor, Dist. - Gandhinagar	2.0
9	Two nos. of solar LED lamps provided at Tintoda Gram Panchyat Village – Tintoda, Dist. – Gandhinagar.	0.5
10	Paver block provided at Shertha Gram Panchyat Village – Shertha, Dist. – Gandhinagar.	2.0
11	RCC road constructed at Saij Gram Panchyat, Village –Saij, Dist. – Gandhinagar.	2.0
12	Playing apparatus provided for children of Child Welfare Grah, at Government Children Home, Sector 17, Gandhinagar.	2.0
13	Medical apparatus procured for General Hospital of Gram Vikash Mandal sanchalit Trust, Village – Palivad, Dist. – Gandhinagar	2.0
14	Paver block provided at Sadvichar Parivar Viklang Punervas Kendra, Village – Uvarsad, Dist. – Gandhinagar	2.0
15	5 nos of Computers were given to Gopal nagar primary School, Kalol, Dist. – Gandhinagar	
	1 no of computer was given to Gyanmandir Higher secondary school, Patan	
	6 nos of computers were given to CORDET, Kalol for training to local community	
	1 no of computer was given for projector of Prathmik shala No. 08, Kalol, Dist. – Gandhinagar	
	4 nos of Computers were given to Adarsh Primary School, Mansa, Dist. – Gandhinagar	
	2 nos of Computers were given to Shree Parbatpura Sarvajanik Pustakalay, Mansa, Dist. – Gandhinagar	
	4 nos of computers were given to Mamlatdar Office, Kalol	
	Total Amount	24

Table 1.1: Social Infrastructure facilities provided by IFFCO in nearby villages



2. Cooperative Rural Development Trust (CORDET)

IFFCO has established CORDET – Co Operative Rural Development Trust under Indian Trust Act. Cooperative Rural Development Trust namely CORDET is a charitable trust registered under Indian Trust Act since 1978 (9th October, 1978) to provide education and training to farmers. The CORDET units are set up at Phulphur, Kalol and Kandla locations. CORDET is instrumental in demonstrating various farming system models to increase the farm income by organizing various trainings and skill development programs for youth and women. It has demonstrated crop production system, dairy, balanced fertilization, use of bio-fertilisers, bee-keeping, pisciculture, computer use, screen printing, welding, tailoring and embroidery also distributed Sewing Machine every year 60 machine, adult education programmes, fruits and vegetables preservation etc. at Kalol units.

Major activities carried out in CORDET in last few years

Sr. No.	Year/ Duration	Number of training programs organized for farmers from various States & Women from nearby villages	Number of participants (farmers and women) in the training programs	Number of soil samples analysed for various nutrients	Production of bio fertilisers in Lakh litres
1	2021-22	170	13739	72396	2.641
2	2022-23	125	15010	229294	3.21
3	2023-24	95	7327	41150	2.33
4	2024–25	182	8407	378500	3.06
5	Apl. 25–Sept. 25	37	2126	113294	1.05

Apart from above, Integrated Rural Development Program (IRDP) has been undertaken in various villages. A variety of social and promotional activities like construction of community centres, drinking water facility, tree plantation, soil testing campaigns, supply of cattle feed, promotion of vermi compost, mini-kit distribution (CIP) etc. were undertaken in these villages.

During the period April - 2025 to September - 2025 CORDET has organized 37 training programmes benefiting 2126 farmers including women from various States. CORDET also provide free soil testing facilities through their Soil Testing Laboratories to the farmers and analyzed 113294 soil samples during this period. Soil samples were also analyzed for six micro nutrients. To increase microbial activities in the soil, CORDET has increased the production capacity of liquid bio-fertilisers from 15 lakh liters per annum. The total production of bio fertilizers during this period was 1.05 Lakh liters.

Integrated Rural Development Program (IRDP) has been undertaken in nearby villages. A variety of social and promotional activities like construction of community centres, drinking water facility, tree plantation, soil testing campaigns, supply of cattle feed, promotion of vermi compost, mini-kit distribution (CIP) etc. were undertaken in these villages. Around 41 programmes in various field have been organized during this period, which benefitted 2639 farmers.



3. Social Activities at Corporate Level (Non-Profit)

i. IFFCO Kisan Sewa trust:

A Charitable Trust created out of joint contributions from IFFCO & its employees has undertaken variety of activities to assist poor and needy farmers affected due to natural calamities such as earthquake, flood, Tsunami etc. It also extends helping hand to the farmers in distress due to aberrant weather conditions. The Trust expanded its scope by providing Financial Assistance to the farmers living below poverty line for their critical medical treatment and education scholarship for higher studies to the children of poor & needy farmers.

ii. Indian Farm Forestry Development Cooperative Limited (IFFDC):

IFFCO had promoted a separate Multi-State Cooperative Society named 'Indian Farm Forestry Development Cooperative Limited' (IFFDC) in 1993 with the prime objective of development of wasteland for tree plantation and to enhance the socio-economic status of rural poor through sustainable Natural Resource Management by collective action. To achieve this, IFFDC initially implemented afforestation and rural development projects in the States of Uttar Pradesh, Madhya Pradesh and Rajasthan with an objective to improve degraded land, generate employment and provide fuel and fodder to the community. Afforestation in about 29,420 hectare wasteland has been achieved by promoting 152 villages level Primary Farm Forestry Cooperative Societies (PFFCS).

iii. Professors Chairs in Agricultural Universities and Cooperative Institutions:

In order to promote excellence in agricultural research and cooperative education in the country, IFFCO has established Professors' Chairs in Agricultural Universities and Cooperative Institutions. At present, 17 Chairs are set up in different parts of the country. IFFCO Professors' Conferences are held periodically and action plans are discussed.

iv. Information and Communications Technology:

This module is optimized for the touch screen monitor based "Cyber Dhabas" (Information Kiosks) being set up by IFFCO. Extensive usage of graphics and audio is implemented to encourage usage of the system by visitors from rural India. The same SIM Card which is used for communication, is turned into a powerhouse of knowledge for empowering people living in villages through relevant & pertinent information.

v. Save the Soil

IFFCO initiated, "Save the Soil Campaign" with focus on soil rejuvenation and crop productivity enhancement for sustainable and environment friendly agriculture. For this, activities were undertaken across the country to promote soil testing, soil reclamation and conservation, application of balanced and integrated use of nutrients, water resource development and conservation, inclusion of pulses in cropping system, crop diversification, farm mechanization etc. In addition, hand holding of farmers and cooperatives was done by providing financial assistance for installation of biogas units, MIS - drip irrigation systems/ sprinkler sets, plastic mulching, farm machinery etc. These efforts have resulted into an average yield increase of 15–25% in various crops; improvement in soil health and above all dissemination of improved farm technologies.

ANNEXURE XIX A & B
COPY OF LATEST RECEIPT OF ACKNOWLEDGMENT



जयते

File No: J-11011/60/2009-IA-II(I)
Government of India
Ministry of Environment, Forest and
Climate Change
IA Division



Date 16/04/2024



To,

DG Inamdar Inamdar
INDIAN FARMERS FERTILIZER COOPERATIVE LIMITED (IFFCO)
IFFCO Sadan, C-1, Court Chowk Road, Saket District Centre, District Centre, Sector-6, Saket, New
Delhi, SOUTH, DELHI, , 110017
iffcofertilizer2020@gmail.com

Subject:

Grant of prior Environmental Clearance (EC) to the proposed project "Expansion and Modernization of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer and Nano Micronutrients" at Plot no. 712/846, 855, 856 of Saij,17-37 of Dhanej, Kasturinagar, GIDC Kalol, District-Ghandhinagar, Gujarat by M/s Indian Farmers Fertilizer Cooperative Limited " 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/GJ/IND3/459862/2024 dated 25/1/2024 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.	EC24A1904GJ5656091N
(ii) File No.	J-11011/60/2009-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 Expansion and Modernization of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer and Nano Micronutrients" at Plot no. 712/846, 855, 856 of Saij,17-37 of Dhanej, Kasturinagar, GIDC Kalol, District- Ghandhinagar, Gujarat
(vii) Name of Project	INDIAN FARMERS FERTILIZER COOPERATIVE LIMITED (IFFCO)
(viii) Name of Company/Organization	

नवादी कम भत्री
शेरथा ग्राम पंचायत
ता.छ. गांधीनगर

तलादी कम भत्री
शरथ ग्राम पंचायत
ता.कलोड, ज. गांधीनगर

तलादी कम भत्री
शरथ ग्राम पंचायत
ता. कलोड, ज. गांधीनगर

ENVIRONMENTAL
CLEARANCE



Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The Director

INDIAN FARMERS FERTILIZER COOPERATIVE LIMITED (IFFCO)

IFFCO Kalol Unit, P.O. Kasturi Nagar, District Gandhinagar, North Gujarat
- 382423,,Gandhinagar,Gujarat-382423

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity
under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC)
in respect of project submitted to the Ministry vide proposal number
IA/GJ/IND3/412440/2022 dated 21 Feb 2023. The particulars of the environmental
clearance granted to the project are as below.

1. **EC Identification No.** EC23A016GJ154380
2. **File No.** J-11011/60/2009-IA-II(I)
3. **Project Type** Expansion
4. **Category** A
5. **Project/Activity including
Schedule No.** 5(a) Chemical fertilizers
6. **Name of Project** Expansion of Existing Fertilizer Plant for
Manufacturing of Nano Fertilizer and
Nano Micronutrients at Plot no. 712/846,
855, 856 of Saij,17-37 of Dhanej,
Kasturinagar, Kalol GIDC, District -
Gandhinagar, Gujarat- 382423
7. **Name of Company/Organization** INDIAN FARMERS FERTILIZER
COOPERATIVE LIMITED (IFFCO)
8. **Location of Project** Gujarat
9. **TOR Date** N/A

The project details along with terms and conditions are appended herewith from page
no 2 onwards.

(e-signed)

Mr. Motipalli Ramesh
Scientist E

IA - (Industrial Projects - 3 sector)

Date: 07/03/2023

Note: A valid environmental clearance shall be one that has EC identification
number & E-Sign generated from PARIVESH. Please quote identification
number in all future correspondence.

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तलाठी कम मंत्री
धानज ग्राम पंचायत
ना. कलोल, ज. गांधीनगर



Received
तलाठी कम मंत्री
सईज ग्राम पंचायत
ना. कलोल, ज. गांधीनगर
07/03/2023

ENVIRONMENTAL
CLEARANCE

PARIVESH

(Pro-Active and Responsive Facilitation by Interactive,
and Virtuous Environment Single-Window Hub)



Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The Director
INDIAN FARMERS FERTILIZER COOPERATIVE LIMITED (IFFCO)
IFFCO Kalol Unit, P.O. Kasturi Nagar, District Gandhinagar, North Gujarat
- 382423,,Gandhinagar,Gujarat-382423

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/GJ/IND3/412440/2022 dated 21 Feb 2023. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|---|
| 1. EC Identification No. | EC23A016GJ154380 |
| 2. File No. | J-11011/60/2009-IA-II(I) |
| 3. Project Type | Expansion |
| 4. Category | A |
| 5. Project/Activity including Schedule No. | 5(a) Chemical fertilizers |
| 6. Name of Project | Expansion of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer and Nano Micronutrients at Plot no. 712/846, 855, 856 of Saij, 17-37 of Dhanej, Kasturinagar, Kalol GIDC, District - Gandhinagar, Gujarat- 382423 |
| 7. Name of Company/Organization | INDIAN FARMERS FERTILIZER COOPERATIVE LIMITED (IFFCO) |
| 8. Location of Project | Gujarat |
| 9. TOR Date | N/A |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 07/03/2023

(e-signed)
Mr. Motipalli Ramesh
Scientist E
IA - (Industrial Projects - 3 sector)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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नवादी कम मंत्री
शेरधा ग्राम पंचायत
ता. गांधीनगर



ANNEXURE XX
COPY OF ENVIRONMENT STATEMENT



**INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
KALOL UNIT**

**P.O. Kasturinagar, Dist: Gandhinagar (North Gujarat)
PIN Code : 382 423 (INDIA)**

EPC/02/2504

Date: 23.06.2025

To,

Member secretary,
Gujarat Pollution Control Board,
Paryavaran Bhavan, Sector -10 A,
Gandhinagar - 382010
Gujarat.

**Sub: Environmental Statement as per Form - V (Environmental Audit Report)
for the Year 2024 - 2025**

Sir,

Please find attached herewith the Environmental Statement (Environmental Audit Report) pertaining to IFFCO Kalol unit for the year ending on 31st March 2025 as per **Form - V**.

This is in accordance with the provision of Rule 14 of the Environmental (Protection) Amendment Rule, 1993 of the Environmental (Protection) Act 1986.

Thanking you,

Sohil
23/06/2025

Dr. Swami
23-06-2025

Sandeep
23/06/25

24/06/25
Gujarat Pollution Control Board
Head Office
Sector No.-10-A
Gandhinagar-382010

Purulotam
ગુજરાત પ્રદૂષણ નિયંત્રણ બોર્ડ
સેક્ટર નંબર ૧૦
ગાંધીનગર, રાજ્ય ગુજરાત
૩૮૨૪૨૩

Yours faithfully
For IFFCO - Kalol Unit

Sandeep Ghosh
(Sandeep Ghosh)
Executive Director

Encl: as above

CC: Shri S. V. Malsattar, Regional Officer, Gandhinagar, GPCB

Phone : 079 – 23282005

Email: sandeepghosh@iffco.in
Web site Address: www.iffco.in

FORM – V

From:

**Executive Director
IFFCO – Kalol Unit
P .O. Kasturinagar (PIN - 382423)
Dist.: Gandhinagar (Gujarat)**

To,

**Gujarat Pollution Control Board
“Paryavaran Bhavan”,
Sector - 10 A,
GANDHINAGAR – 382010**

ENVIRONMENT STATEMENT for the financial year ending the 31st March 2025.

PART: A

- (i) Name and address of the Owner/ Occupier of the Industry, Operation or process : **Shri. Sandeep Ghosh
Executive Director & Unit Head
IFFCO - Kalol**
- (ii) Industry category- Primary- (ST. - Code) : **Fertiliser Sector (Nitrogenous)
IFFCO falls under Co-op. Societies Act.**
Secondary - (SIC Code)
- (iii) Production capacity Units : **a) Urea 6,75,000 MT/Year (100%) max or
Urea 5,44,500 MT/ Year (100%) &
Diesel Exhaust Fluid - 401538 MT/Year #
(32.5 % Urea Solution) max or
Urea 5,44,500 MT/ Year (100%) &
Diesel Exhaust Fluid 326250 MT/Year#
(40 % Urea Solution) max
b) Ammonia 4,16,100 MT/Year
c) Nano Fertilisers @ - 100375 KL/Year **
Nano Urea (4% to 20% Nitrogen) /
Nano DAP /
Nano Micro Nutrients
(Nano Zinc/ Nano Copper/
Nano Boron & Nano Sulphur)**
(As per EC F. No. J-11011-60 -2009-IA-II(I) dtd 16 04 2024)
- (iv) Year of commissioning : **Ammonia & Urea Plant - January, 1975
Diesel Exhaust Fluid (DEF) Plant
– September, 2019
Nano Fertilisers Plant - I 1.8.2021
Nano Fertilisers Plant - II 1.10.2023**
- (v) Date of the last environmental Statement submitted. : **24/05/2024**

Depending upon the requirement of urea in the market, there shall be variation in quantity of DEF Production. However, total urea production shall be limited to 675000 MTPA (Max) under all the above combinations.

** Products shall be manufactured in any combination or single product in both plants i.e., Nano I & Nano II on demand basis. However, total capacity of plant will be limited to 100375 KLPA.

Submission of Environmental Statement is in accordance with the provisions of Rule -14 of the Environment (Protection). Amendment Rule ,1993 of the Environment (Protection) Act, 1986 (29 of 1986) published vide Notification dated 22-4-1993 G.S.R. 386 (E) in the gazette of India- Extraordinary part-II Section -3 Subsection (i), No.155 dated 28-4-1993 by the Ministry of Environment and Forests, Government of India; read with the Notification dated 13-3-1993 G.S.R. 329 (E), of the Gazette of India - Extraordinary part - II Section - 3 Subsection(i) No.120 dtd 13-3-1993.

"Every person carrying on an industry, operation or process requiring Consent under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) or under section - 21of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) or both authorisation under the Hazardous Waste (Management and Handling) Rules, 1989 issued under the environment(Protection) Act, 1986 (29 of 1986) shall submit an environmental audit report for the financial year ending the 31st March in Form- V to the concerned State Pollution Control Board on or before the thirtieth day of September every year, beginning 1993.

2
PART – B

Water and Raw material Consumption

(i) Average water Consumption m³ /day during the year 2024 - 25

Process	: 100
Cooling & Boiler feed	: 9188
Domestic	: 600

Name of products	Process water consumption per unit of product output			
	During the previous Financial year		During the current Financial year	
	2023 - 2024		2024 - 2025	
	CT make up	BF make up	CT make up	BF make up
(1) Ammonia	3.99 m ³	2.55 m ³	3.92 m ³	2.63 m ³
(2) Urea	0.996 m ³	0.53 m ³	1.028 m ³	0.57 m ³
Legend: CT : Cooling Tower BF : Boiler Feed				

(ii) Raw material consumption

* Name of raw materials	Name of Product	Consumption of raw material Per unit of output	
		During the previous Financial Year	During the current Financial Year
		2023 – 2024	2024 – 2025

<u>Ammonia:</u>			
(1) RLNG *	Ammonia	897.644 Sm ³ /MT	856.538 Sm ³ /MT
<u>Urea:</u>			
(1) Ammonia	Urea	570.598 Kg/MT	570.529 Kg/MT
(2) CO ₂	Urea	749.74 Kg/MT	748.64 Kg/MT
(3) RLNG	Urea	90.231 Sm ³ /MT	87.507 Sm ³ /MT
<u>DEF (32.5%):</u>			
(1) 80% Urea Solution	DEF (32.5%)	NIL	NIL
(2) DM Water	DEF (32.5%)	NIL	NIL

Industry may use codes, if disclosing details of raw material would violate contractual obligations, Otherwise all industries have to name the raw materials used.

* Indicates both feed and fuel

PART - C

**Pollution discharged to environment / unit of output
(Parameters as specified in the consent issued)**

Pollutants	Quantity of Pollutants discharged (m³ / day)	Concentration of pollutant discharged (Mass/ volume)	Percentage of variation from Prescribed standards with reasons
(a) Water	951 m ³ /day	Please refer Annexure - I	Nil
(b) Air	-	Please refer Annexure - I	Nil

PART - D

HAZARDOUS WASTES

[As specified under Hazardous wastes [Management and Handling] Rules, 1989]

Hazardous wastes	Total quantity (MT) Balance	
	During the previous financial year 2023 - 24	During the current financial year 2024 - 25
(a) From process		
1. Spent Catalyst (Generated in Ammonia plant)	105	35 [#]
2. Spent Carbon	15 @	15@
(b) From pollution control facilities		
1. ETP & MEE Sludge	45	74 *
2. Spent resin	45	9*

Action has been initiated for E-Auction through M/s M-Junction, Kolkata for sale of spent catalyst.

@ Action has been initiated for its disposal cement industry for coprocessing for which MOU has already been signed

* Action has been initiated for its disposal at TSDF site of M/s Ecocare Infrastructure Pvt.

PART - E (Solid waste)

Particulars	Total quantity (kg)	
	During the previous financial year 2023 - 24	During the current financial year 2024 - 25
(a) From Process	No solid waste generated from process	
(b) From pollution control facilities	NIL	NIL
(c) (1) Quantity recycled or reutilized within the unit	NA	NA
(2) Sold	NA	NA
(3) Disposed	NA	NA
NA : Not applicable		

PART – F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Sr. No.	Type of Waste	Quantity (MT)	Disposal practice
1.	ETP & MEE sludge	83.605	Disposed off at TSDF Site of M/s Eco care Infrastructure Pvt Ltd.
2.	Spent Catalyst	78	Sell to registered and authorized recycler.
3.	Spent Carbon	Nil	Disposal at TSDF Site / Co-processing in cement industries.
4.	Spent Resin	Nil	Disposed off at TSDF Site of M/s Eco care Infrastructure Pvt Ltd.
5.	Used or Spent Oil	1.615	Sold to registered and authorized refiners.
6.	Discarded Drums/Barrels (Plastic Drums/Carboy)	18.135	Sold to authorized decontamination facility/ authorized recycler.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resource and the cost of production.

By implementation of pollution abatement, resource conservation and energy measures, there is reduction in specific energy consumption per MT of urea, reduction in raw water consumption and effluent generation, improvement in effluent quality, reduction in fuel consumption and there by overall improvement in the environment.

Pollution abatement / Resource conservation measure implemented during the current year are as below:

1) Replacement of HP Stripper

Old HP Stripper was in operation since 2002 with tube MOC of SA-213M-UNS S31050 (2 RE69) and Shell MOC of CS. Due to aging and to improve the overall HP system performance, it was planned for replacement of existing HP Stripper with improved design. Same was replaced during annual turn around in April 2025. This has resulted in improvement of CO₂ stripping efficiency.

2) Replacement of FD Fan turbine in BHEL Boiler

Old M/s KKK Germany make FD fan turbine was installed in the Year 1982. It was replaced with high efficient turbine of Kirloskar Make during annual turn around in April 2025. This has resulted in saving of 0.4 Ton/hr of 60 ata steam.

3) Complete Revamping of Cooling Tower cell H-4404 / 1&2

Complete revamp of cooling tower (H - 4404/1 & 2) was carried out during annual turn around in April 2025 to improve performance, efficiency, and structure reliability.

4) Cloth Vending Machine at shopping complex, IFFCO Township (Kasturnagar)

To stop single use plastic in the township, Cloth bag vending machine has been installed at shopping complex in Kasturnagar

Measures implemented towards renewable energy sources / Energy conservation during the year 2024 - 25.

- ❖ About 943545 KWH of Power was generated by “Solar Energy” (Equivalent to 660 MT CO₂ emission reductions @ 0.7 kg CO₂/KWh).
- ❖ To promote use of electric vehicle, Electric vehicle charging station point has been provided in newly constructed residential quarters of IFFCO Township.

PART – H

Additional investment proposal for the year 2025 – 26 towards environmental protection including abatement of Pollution / prevention of Pollution.

- ❖ Due to aging, existing reactor (V – 1201) in Urea Plant shall be replaced in October 2025 at the cost of Rs. 59 crores.

PART – I

Any other particulars for improving the quality of the environment.

Solid waste Management at IFFCO – Kalol

As a part of effective Solid waste Management system at IFFCO-Kalol, following equipment have been installed at site and Biodegradable waste such as Canteen & horticulture waste are being converted into manure.

- ❖ Composting machine with curing chamber
- ❖ Crusher / Shredding machine for handling of horticulture waste

Work order has been issued to an agency for man power supply to carry out jobs related to segregation of waste and treatment of biodegradable waste and also for transportation of recyclable waste to the registered recyclers.

Tree Plantation in the Complex:

32500 numbers of tree saplings of various local species have been planted in the complex till July 2024 and AMC for maintaining the tree saplings is in place.

Vermicompost system at IFFCO township (Kasturinagar)

Domestic waste generated in township is segregated into biodegradable and non biodegradable waste. Bio-degradable materials of about 350 kg/day is converted into vermicompost using earthworms. The nutrient present in the vermicompost is readily soluble in water and thus are very rich sources of macro and micro nutrients. This vermicompost is used as manure in gardening / horticulture within township. Cartons and non biodegradable waste (such as plastic) are disposed off to recyclers.

❖ **500 m³/day capacity sewage treatment plant at Township**

500 m³/day capacity Sewage Treatment Plant based on Fluidized Aerobic Biotechnology (FAB) has been installed at township Kasturinagar. Treated water is utilized for the gardening & nursery within the township.

❖ **Rain water harvesting**

In collaboration with Central Ground Water Board, water recharging well of 600 m³ capacity has been installed for rain water harvesting at IFFCO Township. Almost total rainwater is collected in 700 m³ capacity sumps and water is percolated in the soil through two tube wells provided. Also, "Rain water harvesting modules" of Approx. 25 m³ capacity each have been installed at township and near Union office at plant site for harvesting the rain water. Apart from above 2 nos of rain water harvesting system of single module with internal volume of 0.8 cubic meter (fixed below the ground level) have been implemented at two different locations at township.

❖ **Highlights of Environment / safety performance at IFFCO - Kalol for the year 2024 – 25:**

- a) Longest accident-free period of more than 13 years (5017 days - from 9.7.2011 to 31.3.2024) was achieved surpassing the previous record of 2256 days.
- b) IFFCO Kalol Unit has been declared the winner of Prestigious "Platinum Award 2024 - For Highest Outstanding Performance" in manufacturing sector for the assessment period of 3 years (2021, 2022 and 2023) for second consecutive time by National Safety Council of India (NSCI).
- c) One employee of Nano Fertiliser Plant, Kalol Unit has been awarded the prestigious "Rajya Shram Ratna Award" for the year 2024 - 25 by the Ministry of Labour, Employment & Skill Development, Government of Gujarat.
- d) IFFCO Kalol Unit has been awarded the Prestigious International Safety Award (MERIT Award) in Occupational Health and Safety management by British Safety Council (BSC), UK.
- e) IFFCO - Kalol Unit has received Gujarat Cleaner Production Award for the year 2016 - 2017 (Runner up) under the category of " Large sector" from Forest & Environment Department, Govt of Gujarat.

❖ **IMS for IFFCO Kalol Unit:**

Certified for Integrated Management System (IMS) consisting of Quality Management System (ISO 9001:2015), Environment Management System (ISO 14001:2015) and Occupational Health and Safety Management System (ISO 45001:2018) by Bureau Veritas (India) Pvt Ltd and it is valid up to 04th April 2028.

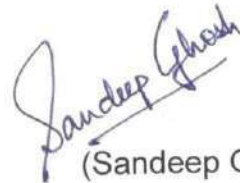
❖ **ISO 50001:2018 for IFFCO Kalol Unit:**

Certified for Energy Management System (ISO 50001:2018) by Bureau Veritas (India) Pvt Ltd and the certification is valid till 22nd March 2027.

❖ **ISO 14001 & IGBC Rating for Township:**

IFFCO Kalol township is certified for its Environment Management System (**ISO 14001:2015**) by Bureau Veritas (India) Pvt Ltd and the certification is valid up to 01.06.2028. Also, Kasturinagar is certified under Green Residential Society Rating System of Indian Green Building Council (IGBC), Hyderabad with Platinum category.

(Signature of official carrying out
an industry, operation or process)



(Sandeep Ghosh)

Executive Director, IFFCO Kalol

Date: 23/06/2025



Annexure - I

Liquid effluent : Final treated effluent
 Location of sampling point : Outlet of Effluent Treatment Plant (ETP)
 Report for the period : April - 2024 to March - 2025

Sr. No.	Parameters	Unit	Permissible limit	Yearly Average Apr - 24 to Mar – 25
1	pH	--	6.5 to 8.5	6.7 - 8.4
2	Temperature	deg C	40	26
3	Colour (Pt.co. scale)	units	100	24
4	Suspended Solids	mg/l	100	20
5	Oil and Grease	mg/l	10	Traces
6	Fluorides	mg/l	1.5	0.45
7	Ammonical Nitrogen	mg/l	50	21
8	Total Chromium	mg/l	2	ND
9	Hexavelent Chromium	mg/l	0.1	ND
10	Copper	mg/l	3	0.02
11	Nickel	mg/l	3	ND
12	Zinc	mg/l	5	0.2
13	B.O.D (5 days at 20 ⁰ C)	mg/l	30	21
14	C.O.D	mg/l	100	48
15	Chlorides	mg/l	600	302
16	Sulphates	mg/l	1000	126
17	Total dissolved Solids	mg/l	2100	801
18	Sodium absorption ratio	-	26	1.75
19	Free Ammonia	mg/l	5	0.85
20	Total Kjeldahl Nitrogen	mg/l	75	26
21	Nitrate (NO ₃ –N)	mg/l	20	6.63
22	Sulphide	mg/l	2	ND
23	Cyanide	mg/l	0.1	ND
24	Iron	mg/l	3	ND
25	Manganese	mg/l	2	ND
26	Arsenic	mg/l	0.2	ND
28	Phenolic Compound	mg/l	1	ND
27	Bio Assay	--	90% survival of fish after 96 hrs in 100 % effluent	90- 95% survival of fish after 96 hrs in 100 % effluent

Note: Treated effluent is used for Horticulture / Gardening/ Green belt development within the IFFCO Kalol.

ND: Not detectable



Annexure - I

Page 2 of 2

STACK / PROCESS EMISSION ANALYSIS REPORT

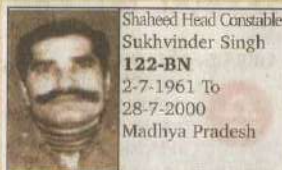
FOR THE PERIOD APRIL - 2024 to MARCH - 2025

Analysis report of various emissions

Sr. No.	Emission points	Pollutant	Units	Concentration	GPCB Limit
1	Urea plant Prill tower exhaust	Particulate Matter	mg/Nm ³	65	150
2	Ammonia scrubber in urea plant (V- 1207)	Ammonia (gaseous)	mg/Nm ³	49	175
3	Primary Reformer and auxiliary boiler furnace stack	PM	mg/Nm ³	14	150
SO _x		ppm	4.1	100	
NO _x		ppm	4.8	50	
4	Boiler (BHEL)	PM	mg/Nm ³	13	150
SO _x		ppm	5.2	100	
NO _x		ppm	6.3	50	

ANNEXURE XXI A & B
COPY OF NEWSPAPER ADVERTISEMENT

SALUTE THE SOLDIER



Shaheed Head Constable Sukhvinder Singh
122-BN
2-7-1961 To
28-7-2000
Madhya Pradesh

Central Reserve Police Force JAMMU & KASHMIR 28 July 2000

On July 28, 2000, 122 Battalion of CRPF was deployed in Jammu and Kashmir to counter militant activities. Shaheed HC Sukhvinder Singh was on duty for Law and Order during the Hursani Majlis in Alamgiri Bazar, Zadibal, Srinagar. At approximately 1405 hrs, unidentified militants hurled a grenade at the patrolling party, gravely injuring HC Sukhvinder Singh. Despite his injuries, Shaheed HC Sukhvinder Singh retaliated, forcing the militants to retreat. He succumbed to his injuries on the battlefield. His courageous actions exemplify the highest standards of bravery, leadership, and selfless devotion in the traditions of CRPF.



Shaheed Constable Aji Kumar R.
65-BN
24-3-1977 To
28-7-2004
Kerala

Central Reserve Police Force JAMMU & KASHMIR 27 July 2004

On 27 July 2004, two fidayeen infiltrated the camp of a company of the 65th Battalion of CRPF at Levard Hotel, PS Dalgate, district Srinagar, through the window of an adjacent medical shop. Once inside, they opened fire and lobbed grenades at the personnel. The sentry at the gate retaliated but was martyred. A brave trooper took immense risk, ran towards one of the militants, and killed him. However, the second fidayeen locked himself inside the hotel. More troops arrived and cordoned off the building. During a tactical assault, Constable Aji Kumar R reached the room where the terrorist was hiding. Despite being injured when the terrorist fired back, Constable Aji Kumar R continued to fight. A grenade was thrown into the room, and after half an hour, Constable Aji Kumar R managed to kill the terrorist but he succumbed to his injuries on 28th July and attained martyrdom. In this encounter, five bravehearts were martyred. For his conspicuous bravery and unflinching gallantry, Shaheed Constable Aji Kumar R was posthumously awarded the President's Police Medal for Gallantry. The nation will forever remain indebted to these bravehearts and their families.



Shaheed Constable K. Mani
75-BN
1-3-1962 To
28-7-1990
Tamil Nadu

Central Reserve Police Force PUNJAB 28 July 1990

On July 28, 1990, 75 Battalion of CRPF was deployed in Tarn Taran district, Punjab, for anti-terrorist operations. A platoon was assigned to comb the village of Jhabal Mannan. As they laid a cordon around the village, terrorists hiding in a field opened fire. The platoon immediately took positions and returned fire. Despite the intermittent exchange of fire, the terrorists managed to escape under the cover of the fields. Constable K. Mani and Constable Brahmeshwar Singh sustained bullet injuries during the encounter. Constable K. Mani was martyred the same day, while Constable Brahmeshwar Singh succumbed to his injuries on August 1, attaining martyrdom.

IFFCO
Wholly owned by Cooperatives

**INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
KALOL UNIT**

Sub : Environment Clearance for Expansion of existing fertilizer plant for manufacturing of Nano fertilizer and Nano micronutrients at IFFCO-Kalol unit

Kalol Unit of Indian Farmers Fertiliser Cooperative Limited (IFFCO) has ammonia-urea and Nano Fertiliser complex at Plot no. 712/846, 855, 856 of Saij, 17-37 of Dhanej, Kasturi Nagar, Kalol, District Gandhinagar, Gujarat. Project related to "Expansion and Modernization of existing Fertiliser plant for manufacturing of Nano Fertiliser and Nano Micronutrients" considering Nano urea (4% to 20% nitrogen content) in the existing facilities with change in product formulations & raw materials mix has been accorded Environmental Clearance vide F.No J.11011/60/2009-IA-II(I) and EC Identification No. EC24A1904GJ5656091N dated 16th April 2024 by the Ministry of Environment, Forest & Climate Change, Govt of India. Copy of the clearance letter is available with the SPCB/MoEF&CC and may also be seen at Website of the Ministry at <https://parivesh.nic.in>

Sandeep Ghosh
General Manager
IFFCO Kalol Unit, P.O. Kasturinagar,
Dist: Gandhinagar, Gujarat - 382423, Phone: 079-23282005
Email: sandeepghosh@iffco.in Website Address: www.iffco.in

WESTERN RAILWAY - AHMEDABAD

PUBLIC NOTICE

It is informed that the inspection by Commissioner Railway Safety would be carried out on the newly laid double line between Dharewada-Kamli section in connection with Mehsana-Palanpur Broad Gauge Doubling Project on 29-07-2024. "Trial Run" will also be done on 29-07-2024. General public are requested to keep away from Railway Track. Crossing of Railway Track or movement near Railway Track can be fatal and would be unauthorized.

Dy. Chief Engineer/C/III,
Western Railway,
Ahmedabad.

CPM-028
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GUJARAT STATE ELECTRICITY CORPORATION LIMITED
Bhavnagar Lignite Thermal Power Station,
At & PO: Padva, Ta : Ghogha, Dist : Bhavnagar-364050
Ph. 0278-2931375 / 0278-2931175,
e-mail: cebtpps.gsecl@gemil.com, Website: www.gsecl.in
CIN: U40100GJ1993SGC019988

E-TENDER NOTICE NO. 82/BLTPS/2024

Chief Engineer (Gen), Gujarat State Electricity Corporation Limited, Bhavnagar Lignite Thermal Power Station invites following E-Tenders:

E-Tenders (On-Line Tenders): (1) Supply of Transmission chain and Drive sprockets for Lignite Transport Feeders for Boiler Unit 1 and Unit 2 at BLTPS GSECL. (Tender ID- 89975). (2) Supply of various spare for Reversible Impact Hammer Type Crusher Model: RHM2028 at Lignite Handling Plant, BLTPS. (Tender ID- 89985). (3) Supply of Exide make Battery cell at GSECL, BLTPS padva-Bhavnagar. (Tender ID- 89992). (4) Supply of 2500 KVA Dry type transformer at GSECL.

KIRAN SYNTEX LIMITED
Registered Office 1/324 Popat Street, Nanpura Surat 395001
Email : kiransyntex@rediffmail.com CIN : L17110GJ1986PLC009099

Extract of Un-Audited Financial Result for Period Ended 30/06/2024

Particulars	Quarter Ended	Year Ended	Quarter Ended
	30/06/2024	31/03/2024	30/06/2023
	Rs. In Lakhs		
Total income from operations	0.00	0.00	0.00
Net Profit / (Loss) for the period (before Tax, Exceptional and/or Extraordinary items)	-4.36	-8.87	-4.22
Net Profit / (Loss) for the period before tax (after Exceptional and/or Extraordinary items)	-4.36	-8.87	-4.22
Net Profit / (Loss) for the period after tax (after Exceptional and/or Extraordinary items)	-4.36	-8.87	-4.22
Total Comprehensive Income for the period (Comprising Profit / (Loss) for the period (after tax) and Other Comprehensive Income (after tax))	-4.36	-8.87	-4.22
Equity Share Capital	423.64	423.64	423.64
Reserves (excluding Revaluation Reserve) as shown in the Audited Balance Sheet of the previous year	-	-	-218.45
Earnings Per Share (of Rs. 10/- each) (for continuing and discontinued operations)			
1. Basic:	0.00	0.00	0.00
2. Diluted:	0.00	0.00	0.00

Note: The above is an extract of the detailed format of un-audited Financial Results filed with the Stock Exchanges under Regulation 33 of the SEBI (Listing and Other Disclosure Requirements) Regulations, 2015. The full format of the un-audited Financial Results are available on the websites of the Stock Exchange at <http://www.bseindia.com> and the listed entity at <http://www.kiransyntex.com>

For Kiran Syntex Limited
Sd/-
Maheshkumar Motiram Godiwala
Managing Director
(DIN: 01779079)

Place: Surat
Date: 26/07/2024

WESTERN RAILWAY - RAJKOT DIVISION

SIGNALING WORK

E-Tender Notice No. DRM-RJT-24-25-SnT-E-01R1, Dt.22-07-2024 Tender No. DRM-RJT-24-25-SnT-E-01R1, Dt.22-07-2024. Name of Work: Rajkot Division - Signalling Work in connection with Providing LHS/RUB at LC No.169, 174, 231, 254, 267 and 272 under DEN (W) - Rajkot jurisdiction. Tender Cost: ₹ 83,24,529.57 (Rs. Eighty Three Lakh Twenty Four Thousand Five Hundred Twenty Nine and Fifty Seven Paise Only) Earnest Money Deposit: ₹ 1,66,500/- (Rs. One Lakh Sixty Six Thousand Five Hundred Only) Tender Form Fee: ₹ 00.00 As per Para-3, GCC-July-2022 Last Date and Time for online apply: on Date 21-08-2024 up to 15:30 hours. Address of the Office: Divisional Railway Manager (S&T), Western Railway, Kothi Compound, Rajkot-360 001. Website particular: www.ireps.gov.in RJT-066
Follow us on: twitter.com/WesternRly

WESTERN RAILWAY - VADODARA DIVISION

VARIOUS ELECTRICAL WORKS

Notice Inviting Tender
EL/50/1/17 (24-25) Dt.24-07-2024
Divisional Railway Manager (Elect), Western Railway, Vadodara Division for and on behalf of the president of India, invites E-Tender on Indian Railways website www.ireps.gov.in from experienced and reliable contractors for the following works :- Sr. No.1: Tender No. BRC-EL-P-18-2339-24-25. Name of work: Vadodara Division : Setting up

WESTERN RAILWAY AHMEDABAD

CONSTRUCTION OF NEW LINE

E-Tender Notice No. DYCEC2ADIBHNDHOLERA1 (TWO PACKET). Deputy Chief Engineer (Construction)-II, Western Railway, Ahmedabad for and on behalf of President of Union of India invites E-Tender for the following work: (1) Name of work with its location: Construction of New Line between Bhimnath from ch. 0.00 m (existing Km from ADI:144.508) including Ch. - 1084.342 m to Dholera Logistic Hub up to Ch.21510.869 m including Y connection at Bhimnath, covering all Civil Engineering works (i.e. Earthwork, Blanketing, Side Drains, Retaining Wall, Trolley Refuges, Construction of All Major/Minor Bridges, RUBS/LHS, Complete Track works (lying and linking), Tamping of Track, Destressing of LWRs, Transportation of Pway Materials, Supply and stacking of Ballast and Other Civil Engineering works (complete work) of Bhavnagar Division on Western Railway. (TWO PACKET) (2) Approximate Cost of Work: ₹ 252,19,60,179.17/- (3) Earnest money to be deposited: ₹ 100,00,000.00/- (4) Tender form fees: Nil (5) Completion period of work: 24 months (Twenty Four Months) including monsoon. (6) Date and submission of bid: 17-08-2024 upto 11:00 Hrs. (7) Website particulars Notice Board location where complete details of tender can be seen and address of the office: Website: www.ireps.gov.in Office of Dy.Chief Engineer (Construction)II, Western Railway, 2nd Floor, 'C' Wing, Nirman Bhavan, Nr. DRM office, Asarva, Ahmedabad-382 345. CPM-029
Like us on: facebook.com/WesternRly Follow us on: twitter.com/WesternRly

JAIPUR DEVELOPMENT AUTHORITY
Indira Circle, Jawahar Lal Nehru Marg, Jaipur-302004

No.: JDA/Est./Actt./2024-25/D-534 Date : 26.07.2024

NOTICE INVITING BID
Short Term NIB No.: DC(Admn)-03/2024-25

Online Bids are invited for Providing service of Various Types of Labourers/Supervisor (Highly Skilled), Security Men (skilled), IVth Class/Chaprasai (Unskilled Labour) Services. Estimated yearly cost of which is Rs. 17.00 Crore, UBN No No. JDA2425SLOB00193. The last date for Applying Bid and making online payment on JDA portal is up-to 05:00 PM of 02.08.2024 Details may be seen in the Bidding Document at our Office or the State Public Procurement Portal website www.sppp.rajasthan.gov.in, www.eproc.rajasthan.gov.in and www.jda.rajasthan.gov.in. To participate in the bid, bidder has to be :-
1. Registered on JDA website www.jda.rajasthan.gov.in for participating in the Bid, the Bidder has to apply for the Bid and pay the Bidding Document Fee, RISL Processing Fee, Bid Security Online only.
2. Registered on e-Procurement Portal of Government of Rajasthan www.eproc.rajasthan.gov.in for online e-Bid submission.
Raj.Samwad/C/24/2920 Deputy Commissioner (Admn)

matrimonials

Bride wanted
CAST NO BAR

Groom wanted
KHATRI/ARORAS

SUITABLE Match for Handsome Yadav Boy 30/185, IT Engineer in MNC, Income 30 LPA, Seeking Educated Hindu Girl, No dowry, Caste No Bar. Contact: 9886253418.

SUITABLE MATCH FOR ARORA KHATRI GIRL, 27/5'3" FAIR COMPLEXION, PR AUSTRALIA, SETTLAD IN MELBOURNE REGISTERED NURSE, EARNING AUFS ONE LAKH PLUS. CAST NO BAR. Contact: 9886253418.

MONSOON HASTKALA HAAT

Exhibition - cum - Sale

Date : 19 to 28 July - 2024
Time : 11.00 am to 9.00 pm

Science Center, Citylight Road, Surat

Shree Narendra Modi
Hon'ble Prime Minister of India

Shree Shubendraji Patel
Hon'ble Chief Minister of Gujarat

ANNEXURE XXII
COPY OF WATER AGREEMENT

ANNEXURES

CONTRACT

for

Water Supply

from

Narmada Branch Canal

Gujarat, India

BETWEEN

Sardar Sarovar Narmada Nigam Ltd.

&

**"Indian Farmers Fertiliser Cooperative Ltd (IFFCO)"
Kalol Unit**

Contract NO.: _____

Sardar Sarovar Narmada Nigam Ltd.

Block 12, New Sachinvalay, Sector 10,
Gandhinagar - 382 010, Gujarat, India
Phone No : +91-79-23252452
Fax No : +91-79-23223056

February 2016



Handwritten signature in Gujarati script.

TABLE OF CONTENTS

Preamble

SCHEDULES:

SCHEDULE "A" – Contract

SCHEDULE "B" – Layout and Company Scope of Work (With specifications of pipelines, pumps, etc)

ATTACHMENTS:

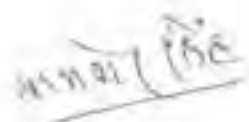
Annex A: Performance Guarantee proforma

Annex B: Copy Approval / Grant of Permission to draw water

Annex C: No Gift Representation









गुजरात गुजरात GUJARAT

AH 125812

No. 45574 Date 15/2/16
 Stamp Value Rs. 100/-
 Purchaser Name Indira Farmers Fertiliser Co-operative
 Residence Falo
 Purchaser Signature K.S. Vaghela
 Sifon Sin 41000
 224157
 SHRI DHIRAJKUMAR AMBALAL
 (STAMP VENDOR) LNO. 2190,
 Navivan Road, W. Civil Court,
 KALOL (N.G.) 382 721.

AGREEMENT

Agreement for sale of water to "Indian Farmers Fertiliser Cooperative Ltd (IFFCO)" Kalol Unit by drawl from Dholka Branch Canal at Ch. 140m for Industrial Use.

RECITALS:

This Water Sale Agreement (hereinafter referred to as "Contract / Agreement") is made and entered into this 22nd day of February, 2016

Between

(1) **Sardar Sarovar Narmada Nigam Ltd. (SSNNL)**, a Company incorporated under the Companies Act, 1956 with its office at Block 12, 1st Floor, New Sachivalaya, Sector-10, Gandhinagar – 382 010, Gujarat, India (hereinafter referred to as "SSNNL / Seller"), which expression shall unless repugnant to the context or meaning thereof be deemed to include its successors and permitted assigns) of the One Part.

and

Page : 3



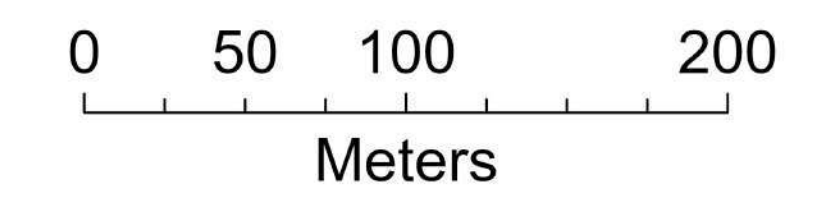
अम्बाल

ANNEXURE XXIII

Aerial Photo of Green Belt Area at IFFCO Kalol

AFFORESTATION PROJECT

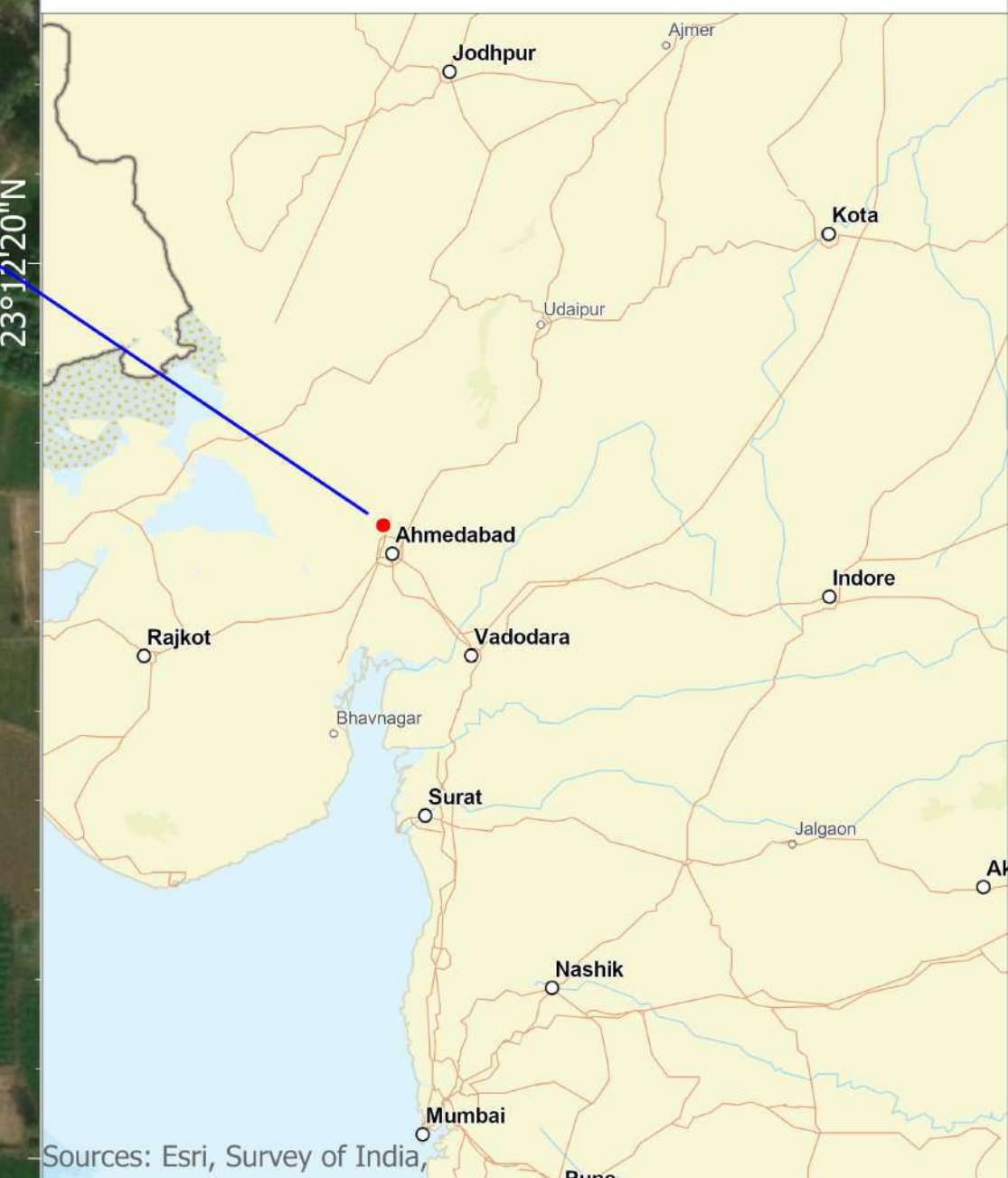
IFFCO PLANT KALOL, GUJARAT



Legend

Plantation Boundary

Survey Date: 01 Aug 2025
Coordinate System : WGS 1984 UTM Zone 43N



Sources: Esri, Survey of India



ANNEXURE XXIV
COPIES OF EARLIER RECEIPT OF ACKNOWLEDGEMENT

IFFCO

Wholly owned by Cooperatives



इंडियन फार्मर्स फर्टिलाइजर कोऑपरेटिव लिमिटेड
INDIAN FARMERS FERTILISER CO-OPERATIVE LIMITED

GWS 1981

BUREAU VERITAS
Certification

कलोल इकाई
KALOL UNIT

KL/IR/C-106A/10

डेयूआरी 6, 2021

प्रति,

सरपंच श्री,

- (1) सईज ग्राम पंचायत
 - (2) शेरथा ग्राम पंचायत
 - (3) धानज ग्राम पंचायत
- जि. गांधीनगर.

मा साहेब श्री,

आ साथे छडको कलोल चेकम ना प्रस्तावित विस्तृतिकरणना संदर्भमा भारत सरकार ना पर्यावरण अने वन विभागमाथी आपवामा आवेल अनुमति पत्र जोडेल छे.

आ अगे आपना तरकथी कोर्छ सुजाव होय तो अमोने जशाववा विनति छे.

आभार सह,

आपनो विश्वासु.

छन्डीयन फार्मर्स फर्टिलाइजर को.ओ.लि. वती,

डि.जी. छन्डीमदार
(डी.जी. छन्डीमदार)

वरिष्ठ कार्यकारी निदेशक



बिडास: उपर मुजब.

नकल रवाना: कलेक्टरश्री, गांधीनगर

जिल्ला विकास अधिकारीश्री, गांधीनगर

तालुका विकास अधिकारीश्री कलोल

कलोल इकाई, पो.आ. कस्तूरीनगर, जिला : गांधीनगर-३८२४२३ (गुजरात)

फोन : (02764) 220209, 220604, 223256, 223258, 22327.

ग्राम : इफको, कस्तूरीनगर फैक्स : 91-2764-22057.

Kalol Unit, P.O. Kasturinagar, Dist. Gandhinagar-382423 (Gujarat)

Phones : (02764) 220209, 220604, 223256, 223258, 22327.

FAX : 91-2764-22057.

Website : www.iffco.ii

IFFCO

Wholly owned by Cooperatives



इंडियन फार्मर्स फर्टिलाइजर कोऑपरेटिव लिमिटेड
INDIAN FARMERS FERTILISER CO-OPERATIVE LIMITED



कलोल इकाई
KALOL UNIT

KL/IR/C-106A/10

डेब्रुवारी 6, 2021

प्रति,

सरपंच श्री,

- (1) सईज ग्राम पंचायत
 - (2) शेरधा ग्राम पंचायत
 - (3) धानज ग्राम पंचायत
- जि. गांधीनगर.

मा साहेब श्री.

आ साथे छडको कलोल चेकम ना प्रस्तावित विस्तृतिकरणना संदर्भमा भारत सरकार ना पर्यावरण अने वन विभागमाथी आपवामा आवेल अनुमति पत्र जोडेल छे.

आ अगे आपना तरइधी कोई सुझाव होथ तो अमोने जसाववा विनति छे.

आभार सह.

आपनो विश्वास,

छन्दीयन फार्मर्स इटीलाछजर को.ओ.लि. वती,

तुषार कामदार
(डी.ओ. छन्दीयन)

वरिष्ठ कार्यकारी निदेशक

बिडार: उपर मुजब.

नकल रवाना: कलेक्टरश्री, गांधीनगर

जिल्ला विकास अधिकारीश्री, गांधीनगर

तालुका विकास अधिकारीश्री कलोल

कलोल इकाई, पो.आ. कस्तूरीनगर, जिला : गांधीनगर-३८२४२३ (गुजरात)

फोन : (02764) 220209, 220604, 223256, 223258, 22327

ग्राम : इफको, कस्तूरीनगर फॅक्स : 91-2764-22057

Kalol Unit, P.O. Kasturinagar, Dist. Gandhinagar-382423 (Gujarat)

Phones : (02764) 220209, 220604, 223256, 223258, 22327

FAX : 91-2764-22057

Website : www.iffco.in

वाम).

तुषार कामदार

कलेक्टर
गुजरात

IFFCO

Wholly owned by Cooperatives


इंडियन फार्मर्स फर्टिलाइजर कोऑपरेटिव लिमिटेड
INDIAN FARMERS FERTILISER CO-OPERATIVE LIMITED
ISO 9001
BUREAU VERITAS
 Certification

कलोल इकाई
KALOL UNIT

KL/IR/C-106A/10

डेयूआरी 6, 2021

प्रति,

सरपंच श्री,

- (1) सईज ग्राम पंचायत
 - (2) शेरथा ग्राम पंचायत
 - ✓ (3) धानज ग्राम पंचायत
- जि. गांधीनगर.

मा साहेब श्री,

आ साथे छडकी कलोल એકમ ના પ્રસ્તાવિત વિસ્તૃતિકરણના સંદર્ભમાં ભારત સરકાર ના પર્યાવરણ અને વન વિભાગમાંથી આપવામાં આવેલ અનુમતિ પત્ર જોડેલ છે.

આ અંગે આપના તરફથી કોઈ સુઝાવ હોય તો અમોને જણાવવા વિનતિ છે.

આભાર સહ,

આપનો વિશ્વાસુ,

ઇન્ડીયન ફાર્મર્સ ફર્ટીલાઇઝર કો.ઓ.લિ. વતી,

(Handwritten Signature)
 (ડી.જી. ઇનામદાર)
 વરિષ્ઠ કાર્યકારી નિદેશક

બિડાણ: ઉપર મુજબ.

નકલ રવાના: કલેક્ટરશ્રી, ગાંધીનગર

જિલ્લા વિકાસ અધિકારીશ્રી, ગાંધીનગર

તાલુકા વિકાસ અધિકારીશ્રી કલોલ

કલોલ ઇકાઈ, પો.આ. કસ્તૂરીનગર, જિલા : ગાંધીનગર-૩૮૨૪૨૩ (ગુજરાત)

ફોન : (02764) 220209, 220604, 223256, 223258, 22327

ગ્રામ : ઇફકો, કસ્તૂરીનગર ફેક્સ : 91-2764-22057

Kalol Unit, P.O. Kasturinagar, Dist. Gandhinagar-382423 (Gujarat)

Phones : (02764) 220209, 220604, 223256, 223258, 22327

FAX : 91-2764-22057

Website : www.iffco.in

(Handwritten Signature)
~~XXXXXXXXXX~~
 Dt- 6/2/2021

ANNEXURE XXV
COPY OF EARLIER NEWSPAPER ADVERTISEMENT

ANNEXURES

વેટરનરી કોલેજ, આણંદ કૃષિ યુનિવર્સિટી, આણંદ ખાતે વાહન ગેરેજના જર્જરીત ધાબાને તોડી કલર કોટેડ પતરાં, ચોરસ પાથ સાથે ફીટ કરવા માટે રસ ધરાવતી પાર્ટીઓ પાસેથી માલ-સામાન અને મજુરી સાથે કામગીરી કરાવવાના ભાવે મંગાવવામાં આવે છે. આ અંગેના જરૂરી સ્પેસીફિકેશન, શરતો અને બોલીઓ દર્શાવતા ટેન્ડર ફોર્મ અંગ્રેજી કચેરીએથી રૂ. ૧૫૦૦/- રોકડા ભરી મેળવી લેવું અથવા વેબસાઇટ www.apu.in/tenders ઉપરથી ડાઉનલોડ કરી ટેન્ડર ફી પેટે રૂ. ૧૫૦૦/- નો "એ. એ. યુ. ફંડ એકાઉન્ટ" ના નામનો પેઓબલ એટ આણંદનો કીમાન્ડ ડ્રાફ્ટ સામેલ કરવાનો રહેશે.

ભરેલ ટેન્ડર ફોર્મ સીલબંધ કરવામાં તા. ૨૨/૦૨/૨૦૨૧ સાંજે ૫.૦૦ કલાક સુધીમાં ફક્ત રજી. પોસ્ટ એ. ડી. / સ્પીડ પોસ્ટથી જ સ્વીકારવામાં આવશે તથા કવર ઉપર "વાહન ગેરેજના જર્જરીત ધાબાને તોડી કલર કોટેડ પતરાં ચોરસ પાથ સાથે ફીટ કરવા માટેની કામગીરીના ભાવ" એમ અવશ્ય લખવાનું રહેશે.

તા. ૦૬/૦૨/૨૦૨૧
સ્થળ: આણંદ
સહી/-
આચાર્ય અને ડીનશ્રી
ફોન નંબર (૦૨૬૯૨) ૨૬૧૪૮૬

IFFCO
Wholly owned by Government

INDIAN FARMERS FERTILISER COOPERATIVE LIMITED KALOL UNIT

MOEF & CC (I.A. Division) ના નિર્દેશ મુજબની સૂચના

વિષય : ઈફ્કો કલોલ એકમ, પો.કરતુરીનગર, જી.ગાંધીનગરના વિસ્તરણ/આધુનિકીકરણ માટેની પર્યાવરણીય મંજૂરી

ઈન્ડિયન ફાર્મર્સ ફિટિલાઈઝર કો-ઓપરેટીવ લિમિટેડ (ઈફ્કો)ના કલોલ એકમમાં પ્લોટ નં. ૭૧૨/૮૪૬, ૮૫૫, ૮૫૬ - સર્કલ, ૧૭ - ૩૭ - ધાનજ, કરતુરીનગર, કલોલ જી. ગાંધીનગર, ગુજરાત ખાતે ઓઓનિયા - યુરિયા સંકુલ આવેલ છે. ઈફ્કો- કલોલ એકમનાં "ફિટિલાઈઝર પ્લાન્ટ ના વિસ્તરણ/આધુનિકીકરણ" ની જોજના ને પર્યાવરણ, વન અને આબોહવા પર્યાવર્તન મંત્રાલય, ભારત સરકાર ના પ્રસ્તાવ ક્રમાંક I/A/GJ/IND2/185904/2009 તારીખ ૧૪ ડિસેમ્બર ૨૦૨૦ અને F.No J-11011/60/2009-II A (I) તારીખ ૧ ફેબ્રુઆરીએ ૨૦૨૧ ડ્રાસાંજૂરી આપવામાં આવેલ છે. પર્યાવરણીય મંજૂરી પત્રની નકલ SPCB/MoEF&CC પાસે અને મંત્રાલય ની વેબસાઇટ <https://parivesh.nic.in> પર ઉપલબ્ધ છે.

ડી. જી. ઈનામદાર, પરિષ્ક કાર્યાલય નિદેશક
ઈફ્કો કલોલ એકમ, પો.કરતુરીનગર, જી.ગાંધીનગર, ગુજરાત, પીન-૩૮૨૪૨૩
ફોન નં.: ૦૭૯-૨૩૨૮૨૦૦૫, ૨૩૨૮૨૦૦૩
ફેક્સ : ૦૭૯-૨૩૨૮૨૦૨૦, ૦૨૭૬૪-૨૨૦૫૭૨, ઈ-મેલ: dginamdar@iffco.in
વેબસાઇટ: www.iffco.in

કામનું નામ	ઈ-નિવિદા સૂચના સંખ્યા	અંદાજિત કિંમત
બેરાર - વીમલેન સેકશન: પ્રોટેક્શન ઓફ સીપેજ ટ્રુ જોઈન્ટ / ગેપ્સ ઈન આરસીસી બોક્સ ઓફ એલએચએસ / આરપૂલી એન્ડ અપર એસોસીએટ વર્ક્સ એટ સબવે નં. એસ-૧, એસ-૭ એન્ડ એસ-૧૩ એન્ડ એની અપર લોકેશન અંદર જમ્પરી ટ્રીકશન ઓફ સિનીપર ડીઈએન / ઈસ્ટ ઝાંસી.	જસી - એન્ક - ૭-2021-132	₹ 15280177.11
અંદાજિત કિંમત - ૦.૦૦, નિવિદા બંધ થવાની તારીખ: 26.02.2021 ના 15.00 કલાકે. સ્વીકૃત પત્ર ઉભુ થવાના સમયથી કામ પૂર્ણતા/અપગવાયાની તારીખ: ૦૬ પત્રના.		
● નિવિદા તારીખ: 26.02.2021ના 15.00 કલાક સુધી ઓનલાઈન જમા કરી શકાશે.		
● સંપૂર્ણ વર્ણન અને નિવિદા પ્રસ્તુત કરવા માટે ભારતીય રેલવેની વેબસાઇટ www.ircps.gov.in પર જુઓ.		
North central railways www.ncr.indianrailways.gov.in @CPRONCR		

ઓનલાઇન જાહેર નિવિદા નં. ૧૩ સને ૨૦૨૦-૨૧ માર્ગ અને મકાન વિભાગ, ગુજરાત રાજ્ય

ગુજરાત રાજ્યના રાજ્યપાલશ્રી વતી કાર્યપાલક ઈજનેરશ્રી, પાટનગર યોજના વિભાગ નં. ૪, "બી" બ્લોક, પાટનગર યોજના ભવન, સેક્ટર નં. ૧૬, ગાંધીનગર-૩૮૨૦૧૬ ફોન નં. ૦૭૯-૨૩૨-૫૯૧૯૯, ૯૮ અને ૯૩ દ્વારા યોગ્ય લાયકાત ધરાવતા ઈજારદારો પાસેથી

કન્સ્ટ્રક્શન ઓફ મલ્ટીસ્ટોરીડ, બિલ્ડિંગ ફોર સ્ટેટ લેવલ એન્ડ કોન્સ્ટ્રીટ્યુશનલ ઓફીસ એટ ગાંધીનગર (કર્મચોગી ભવન બ્લોક નં. ૩ પ્રોવાઈડિંગ એન્ડ લેવિંગ એસપોસ્ટ આર.સી.સી. ફીનીસ એન્ડ સીન્વેટીક પ્લાસ્ટર) જેની અંદાજિત કિંમત રૂ. ૪૧૮.૦૦ લાખ છે.

જે કામ ઈ-ટેન્ડરીંગ પદ્ધતિથી ઓનલાઈન માંગવામાં આવેલા છે. કામના ટેન્ડર ડોક્યુમેન્ટ તથા વિગતો આ વેબસાઇટ www.mh.nprocure.com ઉપરથી તા. ૧૫/૦૨/૨૦૨૧ ના ૧૮:૦૦ કલાક સુધી જોવા મળી શકશે. તેમજ ભરી શકાશે.

આ કામો અંગેની વધારાની માહિતી વિગતવાર ઉપરોક્ત કચેરી તથા વેબસાઇટ પરથી મળી શકશે.

ઓનલાઈન ટેન્ડર અંગે અપલોડ કરવાની છેલ્લી તારીખ સુધીમાં આ કચેરી તરફથી કરવામાં આવેલ સુધારા/વધારા ઈજારદારશ્રીએ ધ્યાને લેવાના રહેશે અને ત્યારબાદ ભાવો ભરવાના રહેશે. આ બાબતે ઈજારદારશ્રીની અંગત જવાબદારી રહેશે.

માહિતી/૧૯૧૮/૨૦-૨૧

પશ્ચિમ રેલવે

ઈ-પ્રોક્યુરમેન્ટ નિવિદા સૂચના નં. એસ/૦૬/૨૦૨૧ તારીખ: ૦૩.૦૨.૨૦૨૧

ક્ર. મુદ્દાનું સંક્ષિપ્ત વર્ણન	માત્રા	બી.ઓ.ડી.
84 13 ટી બોગી બ્રેક માટે લીવર	૩૦૦ ખૂદા	15.02.2021
85 પિન કોટ્સ	2020 ખૂદા	15.02.2021
86 સર્કિયુલર 85 બેક્સ હોલ્ડર	191 ખૂદા	16.02.2021
87 મેટ્રુસ એક્સ ટ્રીલર ટ્રીલર 5 ટ્રીલર	684 ખૂદા	18.02.2021
88 ઓટોમેટિક સોપ ડ્રામ્-નાર	25 ખૂદા	18.02.2021
89 કોમન પાર્ટિંગ ક્રોસ	150 ખૂદા	19.02.2021
90 ટાઈપ રિલે વીસીબી માટે કન્વેક્ટર	13 ખૂદા	22.02.2021
91 સર્કિટ બ્રેકર મેન કોમ્પોસર	54 ખૂદા	22.02.2021
92 સર્કિટ બ્રેકર ટ્રીલર	52 ખૂદા	22.02.2021
93 સર્કિટ બ્રેકર મેટરિયલ યાંત્રિક	27 ખૂદા	22.02.2021
94 રેલ સેન્ટર માટે સહ કિટ પીઓએચ-૧	48 સેટ	22.02.2021
95 એસઈપી સિગ્નલ ઘાઈટિંગ મુનિટ ઈલેક્ટ્રિક રૂટ, સ્ટે અને કોલિંગ ઓન	૩૩૧ ખૂદા	24.02.2021
96 એસઈપી સિગ્નલિંગ ઘાઈટ મુનિટ ઈલેક્ટ્રિક રૂટ, પેલો અને ટ્રીન	233 ખૂદા	24.02.2021
97 કોપલર સાથે ૩ઠી-ટ્રી ઈસી મશીન	1 ખૂદા	24.02.2021
98 પાર્ટિંગ બ્રેક સિસ્ટમ માટે પાર્ટિંગ બ્રેક સિસ્ટમ-૨	1૦7 ખૂદા	25.02.2021
99 સર્કિટ બ્રેકર ટ્રીલર સપ્લાય	61 ખૂદા	25.02.2021
100 કોપર કોન્ટેનર વાપર (19/2.10 મિમી) 65 વર્ગ મિમી	122500 વીલર	26.02.2021
101 એકનારપી સ્ટિટ સહ બેક રેલ	275 ખૂદા	26.02.2021
102 એપનારવીસી-2 ઈમેનપુ રેલ માટે આઈએમએસ રેલ	9 ખૂદા	26.02.2021
103 ઈન્ડિયાન લેન્થ તથા ઈલ્યુમિનેશન પુશ મશનનો સેટ	68 સેટ	26.02.2021
104 ગ્રીપર કંક ટોર્ક આર્મ માટે સ્ક્રિપ્ટ બ્લોક	580 ખૂદા	26.02.2021
105 હેલ્પાઉટ માટે સ્લીપ	52 ખૂદા	28.02.2021
106 બીસીએએ વેમન માટે ક્લેપ ડોર	1132 ખૂદા	26.02.2021
107 સિટાપીક ઘાઈટિંગ બોલ વેરિંગ 6305	184 ખૂદા	27.02.2021
108 પેટનાઈટ આર્મન સ્ટાઈપ	746 ખૂદા	27.02.2021
109 સર્કિટ બ્રેકર સ્પેન્ડર બ્લોઅર ટેમ્પ	11 ખૂદા	27.02.2021
110 કાપીન ગ્રીપર ક્લેપિંગ	8 ખૂદા	27.02.2021

ક્રમાંક 97 માટે ટિપ્પણી: ઉપેલવાર અપૂર્ણિતતાઓ સાથે જૂન ૫૨ બોલી - પૂર્વ બેઠક તારીખ: ૦૭.૦૨.૨૦૨૧ ના મ.પ.પેટે ૩.૦૦ કલાકે અધોક્ષક કરવામાં આવશે. જૂન ઘાઈટી 83682518410 છે તથા પાસવર્ડ 9જા/03 છે. ઈન્ક્યુબ ચિકેટા www.ircps.gov.in પરથી વિનિર્દેશન તથા નિવિદાનું વર્ણન માપ કરી શકે છે. કોઈપણ પ્રકારના સ્પર્ધાકરતા માટે ચિકેટા થી એસ.બી. મિશ્રા (કેમ્પ્યુટી સીએમએમ / એકમિલ) નો 9904490789 ઉપર સંપર્ક કરી શકે છે. વિસ્તૃત સૂચના, ઈમેલથી, પરીતીના નિર્ણયકો તથા વિસ્તૃત નિવિદા શરતો સંબંધિત જાણકારી માટે મહેરબાની કરીને વેબસાઇટ www.ircps.gov.in થી www.nr.indianrailways.gov.in પર જુઓ.

0638 વતી પ્રધાન મુખ્ય સામગ્રી પ્રબંધક
અને સહકારી facebook.com/WesternRly અને ટ્વિટર.com/WesternRly

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સુવેડ / સુવેડીઓ માટે ઉચ્ચ ટેકનીકલ શિક્ષણ સાથે ઉત્તમ રોજગારી દ્વારા ઉચ્ચવર્ણ કરકસીની તક

ભારત સરકારના સુવેડ, લાસુ અને મહામ ઉદ્યમ મંગાવવા અને જર્મન સરકારના સહયોગ વડે સાકાર બનેલ આ સંસ્થા દ્વારા ગુજરાત સરકારના સહયોગથી અનુસુચિત જાતિ તથા જાડિયાતી સુવેડ-સુવેડીઓ માટે ઉચ્ચ ટેકનીકલ શિક્ષણ દ્વારા રોજગાર અને સ્વરોજગારવધી વિવિધ તારીખ કાર્યક્રમ ચલાવવામાં આવે છે.

ક્ર.મ	કોર્સનું નામ	સમયાવધિ	પ્રવેશ લાયકતા
૧	પોસ્ટ ગ્રેજ્યુએટ ડિપ્લોમા ઈન ટૂલ ડિઝાઇન સોન્ડ કેડ કેમ (PGTDCC)	૧ વર્ષ	BE મોડેનીકલ / ઓટોમોબાઇલ / પ્લાસ્ટીક / પ્રોડક્શન
૨	પોસ્ટ ડિપ્લોમા ઈન ટૂલ ડિઝાઇન એન્ડ કેડ કેમ (PDTCC)	૧ વર્ષ	BE / Diploma - મોડેનીકલ / ઓટોમોબાઇલ / પ્લાસ્ટીક / પ્રોડક્શન
૩	પોસ્ટ ડિપ્લોમા ઈન ઈન્ડસ્ટ્રીયલ ઓટોમોબાઇલ એન્ડ ઓટોમોબાઇલ (PDIAI)	૧ વર્ષ	BE / Diploma - મોડેનીકલ / પ્રોડક્શન ઈલેક્ટ્રીકલ / ઈલેક્ટ્રોનિકલ / ઈન્ફોર્મેશન
૪	કન્વેન્શનલ સોર્થ ઈન ટૂલ એન્ડ ડાઈ મેકીંગ (CCTDM)	૧ વર્ષ	ધોરણ ૧૦ પાસ
૫	સી.એન.સી. મશીનીંગ (સી.એન.સી. ઓપરેટર) (CCM)	૪ માસ	ITI ટર્નર / મશીનીંગ (ફક્ત ST તારીખમાર્ગીઓ માટે)

ફક્ત ST તારીખમાર્ગીઓ માટે : તારીખની ફી, રહેવા તથા જમવા અંગે નક્કી કરેલ શરતો મુજબની વ્યવસ્થાનો ખર્ચ ગુજરાત સરકાર દ્વારા આપવામાં આવશે. તારીખમાર્ગીઓ એ ફક્ત રૂ. ૧૦૦૦/- ભરવાના રહેશે.

SC તારીખમાર્ગીઓ માટે ફક્ત તારીખની ફી માફ રહેશે.

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