

**SIX-MONTHLY ENVIRONMENTAL COMPLIANCE
REPORT OF STIPULATED CONDITIONS OF
ENVIRONMENTAL CLEARANCE**

(April, 2023 to September, 2023)

For

**Expansion of existing molasses-based distillery from
45 KLD to 65.3 KLD (RS/ENA/AA) along with power plant
from 1.4 MW to 2.0 MW**

at

**Village: Bahedi, P.O.: Rohana Mill, Block: Charthawal,
Tehsil and District: Muzaffarnagar,
Uttar Pradesh**

For Submission to:

**Ministry of Environment, Forest & Climate Change
(Regional Office, Lucknow)**

Submitted By:

M/s Indian Potash Ltd. (Unit: Distillery) Rohana Kalan

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CHAPTER No. 01, INTRODUCTION AND PROJECT DESCRIPTION

Six monthly environmental compliance/status report is submitted for Molasses based Distillery by M/s Indian Potash Ltd. (Unit: Distillery) for April, 2023 to September, 2023. The Project is located at Village Bahedi, P.O. Rohana Mill, Block Charthawal, tehsil and District: Muzaffarnagar Uttar Pradesh. Prior Environment Clearance was obtained from SEIAA U.P. vide letter no.: **395/Parya/SEAC/5764-5646/2019**, dated **14th October, 2020**. Consolidated Consent to operate for Air & Water has already been obtained for the project Vide Ref No. **165874 / UPPCB / MuzaffarNagar (UPPCBRO) / CTO / both / MUZAFFARNAGAR / 2022 dated 01/11/2022**. Copy of CTE and CTO (Air & Water) is attached here as **Annexure-1**

Specific and general conditions stipulated in Environment Clearance have been complied during construction and post construction phases.

Environmental mitigation measures described in Environmental Management Plan are being implemented operation phase. **M/s Indian Potash Limited (Distillery Unit)** management team is fully conscious about Environmental Management and enhancing green belt development in project surrounding area.

Six monthly compliance/status reports for **April, 2023 to September, 2023** for conditions stipulated in the Environmental Clearance letter issued by SEIAA U.P. are enclosed as **Annexure-2**. Photographs view of implemented mitigation measures are also attached for the ready reference as Photo Documentation.

CHAPTER No. 02 COMPLIANCE OF STIPULATED CONDITIONS OF ENVIRONMENTAL CLEARANCE

Name of the Project: Expansion of existing molasses-based distillery from 45 KLD to 65.3 KLD (RS/ENA/AA) along with power plant from 1.4 MW to 2.0 MW at Village: Bahedi, P.O.: Rohana Mill, Block: Charthawal, Tehsil and District: Muzaffarnagar (U.P.) by M/s Indian Potash Limited (Distillery Unit).

Clearance Letter No: Environment Clearance Letter No: 395/Parya/SEAC/5764-5646 /2019, dated 14th October, 2020

Period of Compliance Report: (April, 2023 to September, 2023)

Environment Clearance conditions:

| Sr. No. | Conditions | Reply |
|----------------|---|---|
| 1. | The Environmental clearance is sought for Expansion of existing molasses-based distillery from 45 KLD to 65.3 KLD (RS/ENA/AA) along with power plant from 1.4 MW to 2.0 MW at Khasra No.-634, 634 M, 633, 631, 627, 626, 624 partly, 622, Village-Rohana Mill, Block: Charthawal, Tehsil & District: Muzaffarnagar (U.P.) by M/s Indian Potash Ltd. | |
| 2. | The additional term of references in the matter were issued by SEIAA, U.P. vide letter no. 208/Parya/SEAC/5646/2018, dated 27 th July, 2020 | |
| 3. | Final EIA report submitted by the project proponent on 13 th August, 2020. | |
| 4. | Salient features of the project | |
| Sr. No. | Item | Details |
| 1. | Name of the Project | M/s Indian Potash Ltd. (Rohana Unit: Distillery) Village: Rohana Mill, Block: Charthawal, Tehsil & District: Muzaffarnagar (U.P.) |
| 2. | Capacity of Distillery | Expansion from 45 KLD to 65.3 KLD (Rectified Spirit/Extra Neutral Alcohol/Ethanol) |
| 3. | Power Generation | From 1.4 MW to 2.0 MW Co- Generation of Power. |
| 4. | Category | Category "B" and Schedule - 5 (g) |
| 5. | Project Summary | |
| Sr. No. | Particulars | Details of Proposed Project (Capacity: 65.3 KLD) |
| 1. | Proposed capacity of Plant | Expansion of the existing project from 45 KLD to 65.3 KLD distillery (RS/ENA/AA) along with Co gen Power from 1.4 MW to 2 MW. |
| 2. | Total project cost | Rs. 11300 Lakhs |
| 3. | Total project area | 6.988 Hectares (17.267 Acres) (Adjoining existing Sugar Mill) at Khasra no. 634, 634 M, 633, 631, 627, 626, 624 partly, 622 M Partly Village: Rohana Mill, Block: Charthawal, Tehsil & District: Muzaffarnagar (U.P.) |
| 4. | Category of Project | Category: B and Schedule: 5 (g) |
| 5. | Process Involve | Distillery Process: 1. Molasses Dilution 2. Yeast Propagation 3. Fermentation 4. Multi Pressure Distillation |
| 6. | Product | RS/ ENA / Ethanol (AA): 65.3 KLD |

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| 7. | Raw material and its Quantity | Molasses) & Sugarcane Syrup 284 MT/DAY of C-Molasses or 200 MT/Day of B-Heavy Molasses or 218 MT/Day of 50% Sugar Syrup Source: Adjacent own sugar unit & other standalone unit in nearby areas. |
| | Co-Gen Power Generation | 2.0 MW Co generation power |
| | Fresh Water Requirement | Fresh Water Requirement : 445 KLD (Industrial Use) Source: Treated and Condensate water from adjacent sugar industry as well as surface water through canal. |
| | Power requirement | The total power requirement for the project will be 1.8 MW. Source: Proposed 2.0 MW Co – Generation Power Plant. |
| | Fuel and its quantity | Slop will be incinerated in boiler along with coal/husk as supporting fuel. Slop: 166 TPD Coal Requirement: 60 TPD (or Husk:70 TPD) |
| | Steam requirement | 17 TPH |
| | Number of boiler | 1 no. Boiler: 22 TPH Technology: (Slop Fired incineration Boiler) |
| | Air Pollution Control Device | ESP |
| | Number of Stack | Proposed One Stack: 70 Meters |
| | Waste Water treatment | Spent wash treatment: 326 KLD It will be concentrated in Multi effect evaporation and then concentrate from MEE will be utilized in Incineration fired boiler as a fuel along with Coal/ Husk. Other effluent treatment: 507 KLD MEE condensate, Blowdowns of CT, Boiler, Floor washing etc will be treated in CPU and treated water will be recycled back to process and cooling in Distillation & CT. |
| | Waste Water Discharge | Unit is based Zero Liquid discharge Industry (ZLD) |
| | Solid Waste Generation | Total Ash generated: 35 TPD Fermenter sludge: 2 TPD Disposal: Total Ash will be used as Soil conditioner; Fermenter Sludge will be dried in sludge drying bed and used as Manure. |
| | No of Working Days | 350 Days / Annum. |
| | Employment Generation | 80 Number |
| | Green Belt Development | 33% of the project area will be covered under green belt plantation (2.306 Hectare) |
| | Cost towards Environmental Protection measures (capital cost) | 40 Crores (it include Waste water treatment system, Boiler, MEE, APCs, Green Belt, Health Safety equipment, granules formation machinery etc) |
| | Recurring cost towards Environmental control measures | 1 Crore per year. |
| | CSR expenses | 2% of total annual Profit as per the CSR Act (By Ministry of corporate affairs) |

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| Six Monthly Compliance Report for Expansion of existing Molasses based Distillery at P.O. Rohana Mill, Block Charthawal, tehsil and District: Muzaffarnagar (U.P.) by M/s Indian Potash Limited (Distillery Unit) | EC Compliance April, 2023 to September, 2023 |
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| | | Notification GSR 129 (E). | | |
| | Corporate Environmental Responsibility (CER) | 169.5 lakhs (1.5% of project cost) | | |
| 6. | Land Use Details | | | |
| Sr. No. | Land use | Area (sqm) | Area in % | |
| 1. | Green Belt Area | 23,060.0 | 33.00 | |
| 2. | Open Land | 23396.3 | 33.48 | |
| 3. | Road/ Paved Area | 4330.0 | 6.20 | |
| 4. | Covered /Rooftop area of building/ sheds | 19093.7 | 27.32 | |
| | GRAND TOTAL | 69,880.0 | 100 | |
| 7. | Raw material required with daily consumption and transport | | | |
| Sr. No. | Particular | Requirement | Storage | Source and mode of transportation |
| 1. | Molasses (All variants like B-Heavy, Final C-Molasses) & Sugarcane Syrup | C-Molasses: 284 MT/Day or B-Heavy Molasses :200 MT/Day or 218 MT/Day of 50% Sugar Syrup | Molasses storage tanks | Through Sugar Mills via Road |
| Other Chemicals | | | | |
| 2. | Sulphuric Acid | 435 Kg/day | Storage facility will be available for the chemical within proposed distillery premises as per requirement | Nearby markets/ by roads |
| 3. | Sodium hydroxide (caustic) | 870 kg/ day | | |
| 4. | Nutrients | 205 kg/day | | |
| 5. | Enzymes | 35.7 kg/Day | | |
| 6. | Anti-foam agents | 58.0 kg/Day | | |
| 8. | Plant and machinery: 1) 65.3 KLD Ethanol plant with integrated evaporator and alcohol storage system, MEE 2) 22 TPH concentrated spent wash (slop) fired incineration boiler including air pollution control system (ESP) 3) Ash handling system, 4) Fuel handling system 5) Turbo generator & condenser with arrangement for the export of surplus power 6) Power distribution system 7) Cooling towers 8) Plant piping, valves etc 9) Pumps with drive motors 10) Condensate Polishing Plan 11) Distributed control system 12) Firefighting system etc. 13) Molasses storage tanks 14) Product storage tanks 15) Weighbridges 16) RCC Chimney | | | |

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| 9. | Water requirement details | |
| 1. | Industry Use | 445 KLD (@ 6.8 KL/ KL of product) |
| 2. | Domestic Use | 20 KLD |
| 3. | Total Water Requirement | 465 KLD |
| | Source: Treated and Condensate water from adjacent sugar industry as well as surface water through canal. | |
| 10. | Waste water generation | |
| 1. | Waste Water Generation | Spent Wash: 326 KLD (@ 5 KL/KL of Product) Other Effluents: 507 KLD |
| 2. | Treatment Technology | Spent wash treatment: It will be concentrated in Multi effect evaporation and then concentrate from MEE will be utilized in Incineration fired boiler as a fuel along with Coal/ Husk. Other effluent treatment: MEE condensate, Blow downs of CT, Boiler, Floor washing etc. will be treated in CPU and treated water will be recycled back to process and cooling in Distillation & CT |
| 11. | The project proposal falls under Category “B” and Schedule - 5 (g) of EIA Notification, 2006 (as amended). | |

| I. Statutory compliance: | | |
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| Sr. No. | Condition | Compliance |
| 1. | 45 days monitoring report of the area for air quality, water quality, Noise level. Besides flora & fauna should be examined twice a week and be submitted within 60 days for a record. | Unit has already submitted the monitoring reports w.r.t. air quality, water quality, Noise to SEIAA at the of appraisal. |
| 2. | Due to unavoidable circumstance and covid-19 pandemic, the authority are unable to visit the site therefore, it is not possible to make available the latest certified compliance report. In view of this the committee decided that the certified compliance report should be submitted within 03 months. | Point is noted. |
| 3. | The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forestland for non-forest purpose involved in the project. | Not applicable, No any forest area is observed in study area, hence forest clearance not required. |
| 4. | The project proponent shall obtain clearance from the National Board for Wildlife, if applicable. | Not applicable. |
| 5. | The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in | No schedule-I species is found in study area, hence this condition is not applicable. |

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| | consultation with the State Forest Department. The implementation report shall be furnished along with the six - monthly compliance report. (in case of the presence of schedule-I species in the study area). | |
| 6. | The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee. | The unit has obtained Consent to Establish from Uttar Pradesh Pollution Control Board. Unit also obtain Consent to Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the water (Prevention & Control of Pollution) Act, 1974 from Uttar Pradesh Pollution Control Board through 165874 / UPPCB / Muzaffar Nagar (UPPCBRO) / CTO / both /MUZAFFARNAGAR/2022 dated 01/11/2022. Copy of CTE and CTO is attached as Annexure- 1 . |
| 7. | The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time. | Point is noted and complied. |
| 8. | The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989 | The Company is strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. |
| II. | Air quality monitoring and preservation: | |
| 1. | The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories. | 24x7 continuous emission monitoring system has been installed and connected to UPPCB and CPCB Server for data transfer. |
| 2. | The project proponent shall install system carryout to Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM ₁₀ and PM _{2.5} in reference to PM emission, and SO ₂ and NO ₂ in reference to SO ₂ and NO ₂ emissions) within and outside the plant area at least at | Four number of Ambient air monitoring location has been decided on the basis condition given. At all four location, ambient air quality data has been found within permissible limit. Copy of Ambient Air quality monitoring report is attached as Annexure – 3 . |

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| | four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind direct ions. (Case to case basis small plants: Manual; Large plants: Continuous). | |
| 3. | The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report. | Summary of Stack and Ambient Air quality within premises is attached as Annexure – 4. |
| 4. | Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards. | Electrostatic Precipitator has been installed as Air Pollution Control System, which reduce the emission level within stipulated norms. Emission from the stack is within CPCB norms. |
| 5. | The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be complied with. | Ambient air quality has been done at three location and results are found within the National Ambient Air Quality Emission Standards. Test reports of air quality are enclosed here with as Annexure - 3. |
| 6. | Sulphur content should not exceed 0.5% in the coal for use in coal fired boilers to control particulate emissions within permissible limits (as applicable). The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines. | Unit is being utilised slop and coal/biomass as a fuel. 70 meter stack has been provided as per the norms. |
| 7. | The DG sets shall be equipped with suitable pollution control devices and the adequate stack height so that the emissions are in conformity with the extant regulations and the guidelines in this regard. | Adequate Stack height has been provided and acoustic enclosure has been installed as pollution control measures. |
| 8. | Storage of raw materials, coal etc shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. | The storage of molasses shall be done in MS / SS storage tank; coal/rice husk is stored in covered sheds. Regular water sprinkling is done avoid dust pollution and fugitive emissions. |
| III. | Water quality monitoring and preservation: | |
| 1. | For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow | Unit is based on Zero Liquid Discharge. Spent wash generated is being concentrated |

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| | meters in the channel/drain carrying effluent within the premises (applicable in case of the projects achieving ZLD) and connected to SPCB and CPCB online servers. | in MEE then concentrate from MEE is being utilised as fuel in incineration boiler. Web camera has been installed within premises and connected to CPCB and SPCB server. |
| 2. | Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises (applicable in case of the projects achieving the ZLD). | In no any case treated water is (or will be) discharged outside the premises as unit is based on Zero Liquid Discharge. |
| 3. | Process effluent /any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system. | Process effluent/any wastewater is not being mixed with storm water. The separate storm water from the premises is being collected and used with in premises. Unit is based on Zero Liquid Discharge. |
| 4. | The effluent discharge shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting Consent under the Air/Water Act, whichever is more stringent. | Unit is based on Zero Liquid Discharge strategy. |
| 5. | Total fresh water requirement shall not exceed the proposed quantity or as specified by the Committee. Prior permission shall be obtained from the concerned regulatory authority / CGWA in this regard. | Unit already obtained the NOC from Uttar Pradesh ground water department. Copy of ground NOC is attached as Annexure – 5 . |
| 6. | Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system. | Waste water treatment strategy: For Spent wash: MEE followed by Incineration (Slop fired Boiler). Industry will be based on Zero Liquid Discharge. For Other Effluent: Process Condensate Polishing Plant shall be installed for treatment of various other effluents (Condensate, Lees, Floor washing, Blow downs). Domestic effluent Soak pit and Septic tank. |
| 7. | The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations within the plant. | Condition noted and complied. |
| IV. | Noise monitoring and prevention: | |
| 1. | Acoustic enclosure shall be provided to DG set for controlling the noise pollution. | Acoustic enclosure is provided with DG set for controlling the noise pollution. |

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| Six Monthly Compliance Report for Expansion of existing Molasses based Distillery at P.O. Rohana Mill, Block Charthawal, tehsil and District: Muzaffarnagar (U.P.) by M/s Indian Potash Limited (Distillery Unit) | EC Compliance April, 2023 to September, 2023 |
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| 2. | 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 overall noise levels in and around the plant area is kept well within the standards as unit has provided noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. |
| 3. | The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time. | The ambient noise levels conforms to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time. Test report enclosed as Annexure - 3. |
| V. | Energy Conservation measures: | |
| 1. | The energy sources for lighting purposes shall preferably be LED based. | The unit has preferred LED Lighting in the campus. |
| VI. | Waste management: | |
| 1. | Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps. | Hazardous waste generated within premises is being stored in dedicated place. |
| 2. | Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. | Ash is being used as manure due to high potash value (27%-35%). . |
| 3. | The company shall undertake waste minimization measures as below: - i. Metering and control of quantities of active ingredients to minimize waste. | The unit has metered all necessary flow points. |
| | ii. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. | Unit is using concentration spent wash as fuel in boiler, treated water from CPU is 100% recycled within the system. |
| | iii. Use of automated filling to minimize spillage. | Condition noted. |
| | iv. Use of Close Feed system into batch reactors. | Unit using close feed system into batch reactors |
| | v. Venting equipment through vapour recovery system. | Unit has installed venting equipment through vapour recovery system. |
| | vi. Use of high-pressure hoses for equipment clearing to reduce wastewater generation. | Unit has installed high pressure hoses for equipment clearing to reduce wastewater generation. |
| VII. | Green Belt: | |
| 1. | Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant. | 33 % of total plot area, already marked for Green belt development and it is under process. |
| VIII. | Safety, Public hearing and Human health issues: | |

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| 1. | Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented. | Emergency preparedness plan submitted with EIA EMP report has been implemented at the site. |
| 2. | The PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act. | The unit has provided Personal Protection Equipment (PPE) as per the norms of factory Act. |
| 3. | 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. | Training is imparted to all concerning employees on safety and health aspects of chemicals handling. Photographs of training is attached as Annexure – 6. |
| 4. | Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project. | Already provided at the time of construction phase. Currently project is in operation phase. |
| 5. | Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act. | Occupation health surveillance of the workers is done on a regular basis and records maintained as per the Factories Act. Summarized health surveillance report is attached as Annexure – 7. |
| 6. | There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places. | Unit has already marked the parking area for parking of vehicle within premises. No parking will be done outside the premises or in public place. |
| IX. | Corporate Environment Responsibility: | |
| 1. | The project proponent shall comply with the provisions contained in this Ministry's OM vide F. No. 22-65/2017-IA. III dated 1 st May, 2018, as applicable, regarding Corporate Environment Responsibility. | The project proponent will comply with the provisions contained in this Ministry's OM vide F. No. 22-65/2017-IA.III dated 01 st May 2018, as applicable, regarding Corporate Environment Responsibility. |
| 2. | The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for 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. The company shall have defined system of reporting infringements / deviation/ violation of the environmental/ forest / | The company is having an environmental policy duly approve by the Board of Directors. Environmental Policy is attached as Annexure – 8. |

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| | wildlife norms I conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF & CC as a part of six-monthly report. | |
| 3. | A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization. | The unit has organized an Environmental Cell to take care of all concerning stipulated conditions regarding environment. |
| 4. | Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report. | Condition noted and complied. |
| 5. | Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out. | Condition noted for compliance. |
| X. | Miscellaneous: | |
| 1. | If the proposed project is situated in notified area of ground water extraction, where creation of new wells for ground water extraction is not allowed, requirement of fresh water shall be met from alternate water source other than ground water or legally valid source and permission from the competent authority shall be obtained be to use it. | Currently project is in non-notified area; hence, industry obtained NOC from Uttar Pradesh Ground Water Department. |
| 2. | The project proponent shall ensure that the distillery shall be on ZLD basis with incineration of spent wash in slop boiler. As proposed treated waste water should be completely recycled / reused and ZLD should be achieved. Under no circumstances treated waste water and effluent shall be discharged to any drain / sewer line / inland surface water / nala etc. | Waste water treatment strategy: For Spent wash: MEE followed by Incineration (Slop fired Boiler) For Other Effluent: Process Condensate Polishing Plant has been installed for treatment of various other effluents (Condensate, Lees, Floor washing, Blow downs). Domestic effluent Soak pit and Septic tank. |

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| | | Unit is based on Zero Liquid Discharge strategy; no effluent is discharged outside premises |
| 3. | Directions/ suggestions given during public hearing and commitment made by the project proponent should be strictly complied. | Directions/ suggestions given during public hearing and commitment made by the project proponent are complied. |
| 4. | The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently. | The copy of published information (in 2 newspapers) regarding grant of environmental clearance already submitted. Copy of public notice is attached as Annexure – 9. |
| 5. | 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. | The copies of the environment clearance letter are submitted to the Heads of local bodies Panchayat and Municipal bodies. |
| 6. | The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis. | Complied. Six Monthly Compliance report has been uploaded on the website. |
| 7. | The project proponent shall monitor the criteria pollutants level namely; PM ₁₀ , SO ₂ , NO ₂ (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company. | Unit is regularly monitoring the ambient air quality, stack emissions; copy of the test reports is enclosed here with as Annexure-3. |
| 8. | The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal. | Condition noted. |
| 9. | The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended | Unit will submit environmental statement in Form-V as per schedule after start of the plant. Copy of Form V has been submitted to regional office. |

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| | subsequently and put on the website of the company. | |
| 10. | The project proponent 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, commencing the land development work and start of production operation by the project. | Financial closure of project is 31 st March 2023 for this financial year. |
| 11. | The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government. | The unit strictly adheres to the stipulations made by the State Pollution Control Board and the State Government. |
| 12. | The project proponent shall abide by all the commitments and recommendations made in the EIA / EMP report, commitment made during Public Hearing and that during their presentation to the Expert Appraisal Committee. | The unit abides by all the commitments and recommendations made in the EIA/EMP report. |
| 13. | No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC). | No further expansion or modifications in the plant will be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC). |
| 14. | 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. | No any Concealing of factual data has been done. |
| 15. | The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory. | Condition noted. |
| 16. | The Ministry reserves the right to stipulate additional conditions if found necessary. | Condition noted. |
| 17. | The Company in a time bound manner shall implement these conditions. | Condition noted. |
| 18. | 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. | Condition noted. |
| 19. | 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 | Condition noted. |

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| | 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. | |
| 20. | 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. | |
| | Concealing factual data and information or submission of false/fabricated data and failure to comply with any of the conditions stipulated in the prior Environmental Clearance attract action under the provision of Environmental (Protection) Act, 1986. | No any Concealing of factual data or submission of false/fabricated data has been done. |
| | This Environmental Clearance is subject to ownership of the site by the project proponent in confirmation with approved master plan for Lucknow. In case of violation; it would not be effective and would automatically be stand cancelled. | Condition noted. |
| | The project proponent has to ensure that the proposed site in not a part of any no-development zone as required/prescribed/identified under law. In case of the violation this permission shall automatically deemed to be cancelled. Also, in the event of any dispute on ownership or land use of the proposed site, this Clearance shall automatically deemed to be cancelled. | The unit ensures that the proposed site in not a part of any no-development zone |
| | The project proponent has mandatorily submit the compliance of specific conditions no.-1, 2, 3, 4, & 5 given In E.C. letter within 3 months, falling which the clearance shall automatically deemed to be cancelled. | Condition noted and complied. |
| | Further project proponent has to submit the regular 6 monthly compliance report regarding general & specific conditions as specified in the E.C. letter and comply the provision of EIA notification 2006 (as amended). | Condition noted for compliance. |
| | These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability (insurance) Act, 1991 and | Unit abides by the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability (insurance) Act, 1991 and EIA Notification, |

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| Six Monthly Compliance Report for Expansion of existing Molasses based Distillery at P.O. Rohana Mill, Block Charthawal, tehsil and District: Muzaffarnagar (U.P.) by M/s Indian Potash Limited (Distillery Unit) | EC Compliance April, 2023 to September, 2023 |
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| | EIA Notification, 2006 including the amendment and rules made thereafter. | 2006 including the amendment and rules made thereafter. |
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CHAPTER No. 03: DETAILS OF ENVIRONMENTAL MONITORING

3.1 AMBIENT AIR QUALITY MONITORING

3.1.1 Ambient air Quality Monitoring Stations

Ambient air quality monitoring has been carried out at 04 location; baheri, saidpur, khampur and near project site. This will enable to have a comparative analytical understanding about air quality and the changes in the air environment in the study area with respect to the condition prevailing. The location of the ambient air quality monitoring stations is given in **Table-3.1**.

Table-3.1: Details of Ambient Air Quality Monitoring Stations

| Sr. No | Location Code | Location Name/ Description | Environmental Setting of Surrounding |
|---------------|----------------------|-----------------------------------|---|
| 1. | AAQ - 01 | Baheri | Residential |
| 2. | AAQ - 02 | Saidpur | Residential |
| 3. | AAQ - 03 | Khampur | Residential |
| 4. | AAQ - 04 | Near Project Site | Industrial |

AAQ - 01: Baheri

The sampler was placed Baheri and was free from any obstructions. Surroundings of the sampling site represent residential environmental setting.

AAQ - 02: Saidpur

The sampler was placed Saidpur and was free from any obstructions. Surroundings of the sampling site represent residential environmental setting.

AAQ - 03: Khampur

The sampler was placed Khampur and was free from any obstructions. Surroundings of the sampling site represent residential environmental setting.

AAQ - 04: Near Project Site

The sampler was placed Near Project Site and was free from any obstructions. Surroundings of the sampling site represent industrial environmental setting.

3.1.2 Ambient Air Quality Monitoring Methodology

Monitoring was conducted in respect of the following parameters:

- Respirable Suspended Particulate Matter (PM₁₀)
- Fine Particulate Matter (PM_{2.5})
- Sulphur Dioxide (SO₂)
- Oxides of Nitrogen (NO_x)

The duration of sampling of PM₁₀, PM_{2.5}, SO₂ and NO_x was 24 hourly continuous sampling per day duration monitoring. The monitoring was conducted for one day at the location. This is to allow a comparison with the National Ambient Air Quality Standards.

The air samples were analyzed as per standard methods specified by Indian Standards (IS: 5182). The techniques used for ambient air quality monitoring and minimum detectable levels are given in **Table-3.2**.

Fine Particulate Sampler instruments have been used for monitoring Particulate Matter 2.5 (PM_{2.5} i.e. <2.5 microns), and Respirable Dust Sampler with gaseous sampling attachment was used for sampling Respirable fraction (<10 microns), gaseous pollutants like SO₂, and NO_x.

Table-3.2: Techniques used for Ambient Air Quality Monitoring

| Sr. No | Parameter | Technique | Range of testing /limit of detection |
|--------|---|---|--------------------------------------|
| 1. | Respirable Suspended Particulate Matter (PM ₁₀) | Respirable Dust Sampler, with cyclone separator, Gravimetric Method | 5.0 - 1200 |
| 2. | Fine Particulate Matter (PM _{2.5}) | Fine Particulate Sampler, Gravimetric Method | 2.0 - 500 |
| 3. | Sulphur dioxide | Modified West and Gaeke | 5.0 - 1050 |
| 4. | Oxides of Nitrogen | Jacob & Hochheiser | 6.0 - 750 |

3.1.3 Ambient Air Quality Monitoring Results at Baheri

The detailed on-site monitoring results of PM_{2.5}, PM₁₀, SO₂ and NO_x are presented in **Table-3.3**.

Table-3.3: Ambient Air Quality Monitoring Results at Baheri

| Sr. No | Particulars | Protocol | Unit | Result | Range of testing /limit of detection | Standard as per NAAQS; dated 18/11/ 2009 |
|--------|--|--|-------------------|--------------|--------------------------------------|--|
| 1 | Particulate matters size less than 10 µm (PM ₁₀) | IS: 5182 (Part-23): 2006 Reaffirmed: 2022 | µg/m ³ | 81.5 | 5.0 - 1200 | For 24 hour =100 |
| 2 | Particulate matters size less than 2.5 µm (PM _{2.5}) | IS: 5182 (Part-24): 2019 | µg/m ³ | 49.60 | 2.0 - 500 | For 24 hour =60 |
| 3 | Sulphur Dioxides (SO ₂) | IS: 5182 (Part-2): 2001 Reaffirmed: 2022 | µg/m ³ | 14.01 | 5.0 - 1050 | For 24 hour =80 |
| 4 | Oxides of nitrogen (NO _x) | IS: 5182 (Part-6): 2006 Reaffirmed: 2022 | µg/m ³ | 18.98 | 6.0 - 750 | For 24 hour =80 |

3.1.4 Ambient Air Quality Monitoring Results at Saidpur

The detailed on-site monitoring results of PM_{2.5}, PM₁₀, SO₂ and NO_x are presented in **Table-3.4**.

Table-3.4: Ambient Air Quality Monitoring Results at Saidpur

| Sr. No | Particulars | Protocol | Unit | Result | Range of testing /limit of detection | Standard as per NAAQS; dated 18/11/ 2009 |
|--------|--|--|-------------------|--------------|--------------------------------------|--|
| 1 | Particulate matters size less than 10 µm (PM ₁₀) | IS: 5182 (Part-23): 2006 Reaffirmed: 2022 | µg/m ³ | 79.4 | 5.0 - 1200 | For 24 hour =100 |
| 2 | Particulate matters size less than 2.5 µm (PM _{2.5}) | IS: 5182 (Part-24): 2019 | µg/m ³ | 46.43 | 2.0 - 500 | For 24 hour =60 |
| 3 | Sulphur Dioxides (SO ₂) | IS: 5182 (Part-2): 2001 Reaffirmed: 2022 | µg/m ³ | 13.25 | 5.0 - 1050 | For 24 hour =80 |
| 4 | Oxides of nitrogen (NO _x) | IS: 5182 (Part-6): 2006 Reaffirmed: 2022 | µg/m ³ | 18.63 | 6.0 - 750 | For 24 hour =80 |

3.1.5 Ambient Air Quality Monitoring Results at Khampur

The detailed on-site monitoring results of PM_{2.5}, PM₁₀, SO₂ and NO_x are presented in **Table-3.5**.

Table-3.5: Ambient Air Quality Monitoring Results at Khampur

| Sr. No | Particulars | Protocol | Unit | Result | Range of testing /limit of detection | Standard as per NAAQS; dated 18/11/ 2009 |
|--------|--|--|-------------------|--------------|--------------------------------------|--|
| 1 | Particulate matters size less than 10 µm (PM ₁₀) | IS: 5182 (Part-23): 2006 Reaffirmed: 2022 | µg/m ³ | 76.8 | 5.0 - 1200 | For 24 hour =100 |
| 2 | Particulate matters size less than 2.5 µm (PM _{2.5}) | IS: 5182 (Part-24): 2019 | µg/m ³ | 46.94 | 2.0 - 500 | For 24 hour =60 |
| 3 | Sulphur Dioxides (SO ₂) | IS: 5182 (Part-2): 2001 Reaffirmed: 2022 | µg/m ³ | 13.25 | 5.0 - 1050 | For 24 hour =80 |
| 4 | Oxides of nitrogen (NO _x) | IS: 5182 (Part-6): 2006 Reaffirmed: 2022 | µg/m ³ | 18.66 | 6.0 - 750 | For 24 hour =80 |

3.1.6 Ambient Air Quality Monitoring Results Near Project Site

The detailed on-site monitoring results of PM_{2.5}, PM₁₀, SO₂ and NO_x are presented in **Table-3.6**.

Table-3.6: Ambient Air Quality Monitoring Results Near Project Site

| Sr. No | Particulars | Protocol | Unit | Result | Range of testing /limit of detection | Standard as per NAAQS; dated 18/11/ 2009 |
|--------|--|--|-------------------|--------------|--------------------------------------|--|
| 1 | Particulate matters size less than 10 µm (PM ₁₀) | IS: 5182 (Part-23): 2006 Reaffirmed: 2022 | µg/m ³ | 80.9 | 5.0 - 1200 | For 24 hour =100 |
| 2 | Particulate matters size less than 2.5 µm (PM _{2.5}) | IS: 5182 (Part-24): 2019 | µg/m ³ | 49.85 | 2.0 - 500 | For 24 hour =60 |
| 3 | Sulphur Dioxides (SO ₂) | IS: 5182 (Part-2): 2001 Reaffirmed: 2022 | µg/m ³ | 14.04 | 5.0 - 1050 | For 24 hour =80 |
| 4 | Oxides of nitrogen (NO _x) | IS: 5182 (Part-6): 2006 Reaffirmed: 2022 | µg/m ³ | 19.38 | 6.0 - 750 | For 24 hour =80 |

3.1.7 Discussion on Ambient Air Quality in the Study Area

The value of PM₁₀ at Ambient Air Monitoring Station No: 1, 2 & 3 are 81.5 µg/m³, 79.4 µg/m³, 76.8 µg/m³ & 80.9 µg/m³ respectively which were within permissible limit of 100 µg/m³ and PM_{2.5} levels are 49.60 µg/m³ Baheri, 46.43 µg/m³ at Saidpur, 46.94 µg/m³ Khampur and 49.85 µg/m³ at Near Project Site, were also observed within permissible limit of 60 µg/m³ (for residential, rural and other areas as stipulated in the National Ambient Air Quality Standards). SO₂ ranges between 13.25 µg/m³ to 14.04 µg/m³ and NO_x ranges between 18.63 µg/m³ to 19.38 µg/m³ was also observed within the corresponding stipulated limits (Limit for SO₂ and NO_x; 80 µg/m³) at all of the 04 monitoring locations. Station wise variation of ambient air quality parameters has been graphically shown in **Figure-3.1 to 3.4**.

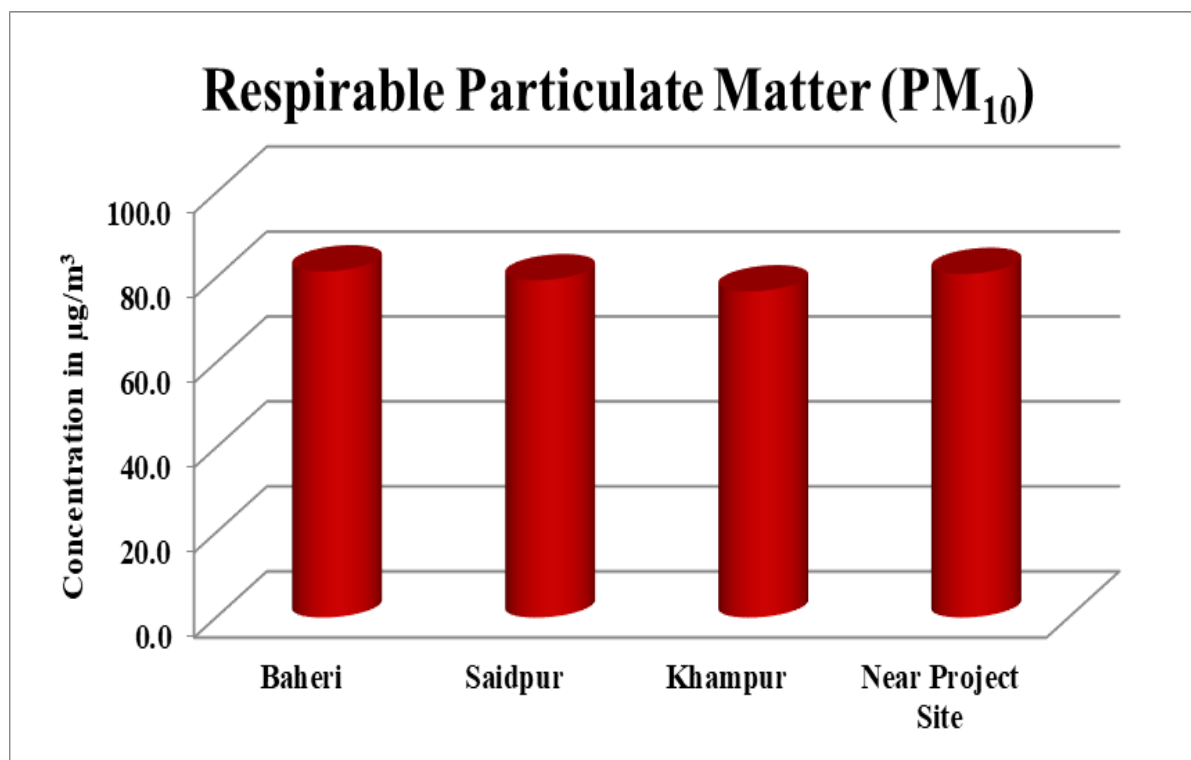


Figure-3.1: Graphs Showing PM₁₀ Concentration at all sites

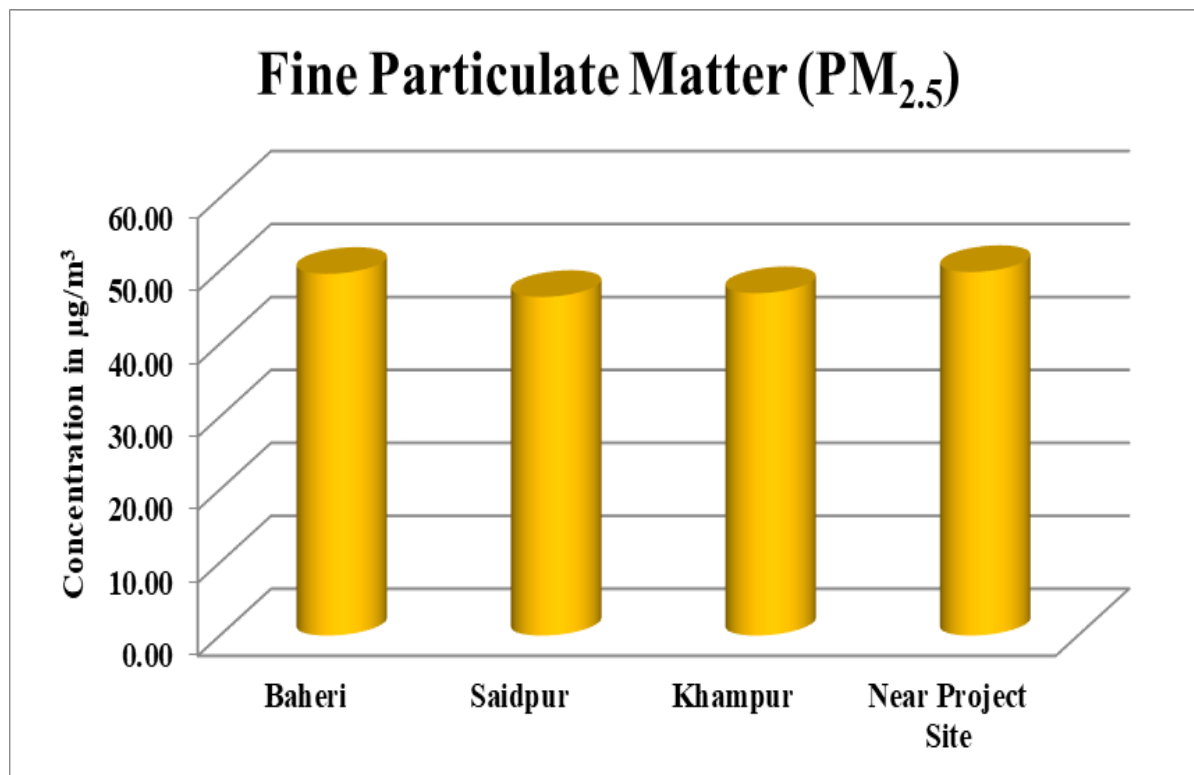


Figure-3.2: Graphs Showing PM_{2.5} Concentration at all sites

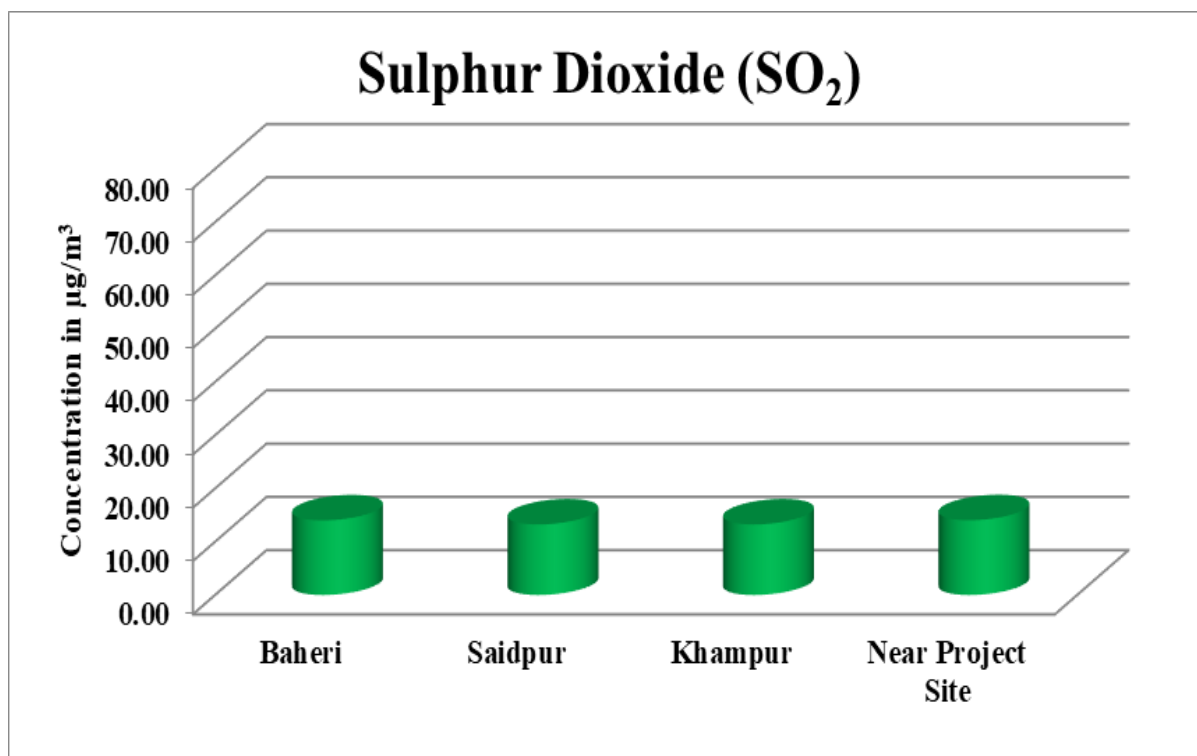


Figure-3.3: Graphs Showing SO₂ Concentration at all sites

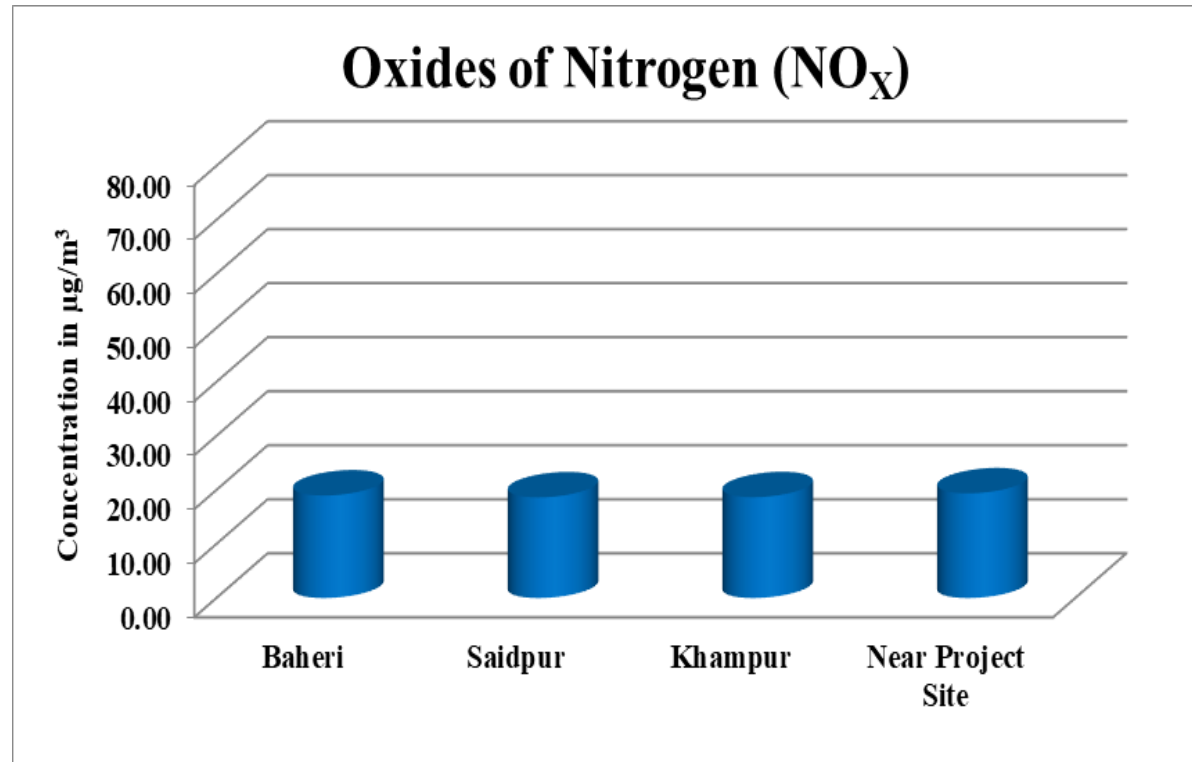


Figure-3.4: Graphs Showing NO_x Concentration at all sites

3.2 STACK EMISSION MONITORING

Stack Emission monitoring was carried out by EPA approved Laboratory on date 13.09.2023 for stack attached with 22.0 TPH boiler (ESP is used as Air Pollution Control Device with a stack height of 70.0 meter.

3.2.1 Stack Emission Monitoring Methodology

Monitoring was conducted in respect of the following parameters:

- Particulate Matter (PM)

The Method used for Stack Emission monitoring and range of testing with CPCB standard are given in **Table-3.7**.

Table-3.7: Details of Stack Emission Monitoring Results

| Sr. No. | Parameter | Unit | Protocol | Result | Range of Testing/ Limit of Detection | Standard (as per CPCB) |
|---------|--------------------|--------------------|--|--------|--------------------------------------|------------------------|
| 1 | Particulate Matter | mg/Nm ³ | IS: 11255 (Part-1): 1985 Reaffirmed: 2019 | 46.6 | 2.0 - 1000 | 150 |

3.3 AMBIENT NOISE MONITORING

3.3.1 Ambient Noise Monitoring Locations

The main objective of noise monitoring in the study area is to assess the present ambient noise levels near project site due to various construction-allied activities and increased vehicular movement. A preliminary reconnaissance survey has been undertaken to identify the major noise generating sources in the area. Ambient noise monitoring was conducted at 01 location as given in **Table-3.8**.

Table-3.8: Details of Ambient Noise Monitoring Stations

| Sr. No | Location Code | Location name and description | Date of Monitoring |
|--------|---------------|-------------------------------|--|
| 1. | NQ - 01 | Near Project Site | 14/09/2023 (06:00 AM) to 15/09/2023 (06:00 AM) |

3.3.2 Methodology of Noise Monitoring

Noise levels were measured using sound level meter. Noise level monitoring was carried out continuously for 24-hours with one hour interval starting at 06:00 hrs to 06:00 hrs next day. The noise levels were monitored on working days only. During each hour Leq were directly computed by the instrument based on the sound pressure levels. Monitoring was carried out at 'A' response.

3.3.3 Ambient Noise Monitoring Results

The location wise ambient noise monitoring results is summarized in **Table-3.9**. The noise levels are graphically presented in **Figure-3.5**.

Table-3.9: Ambient Noise Monitoring Results

| Ambient Noise Level | | | | |
|---------------------|------------------------|-------|--|--|
| Sr. No. | Parameter | Unit | Results Day Time (06:00 AM - 10:00 PM) | Results Night Time (10:00 PM - 06:00 AM) |
| 1 | Equivalent sound level | dB(A) | 59.46 | 48.25 |

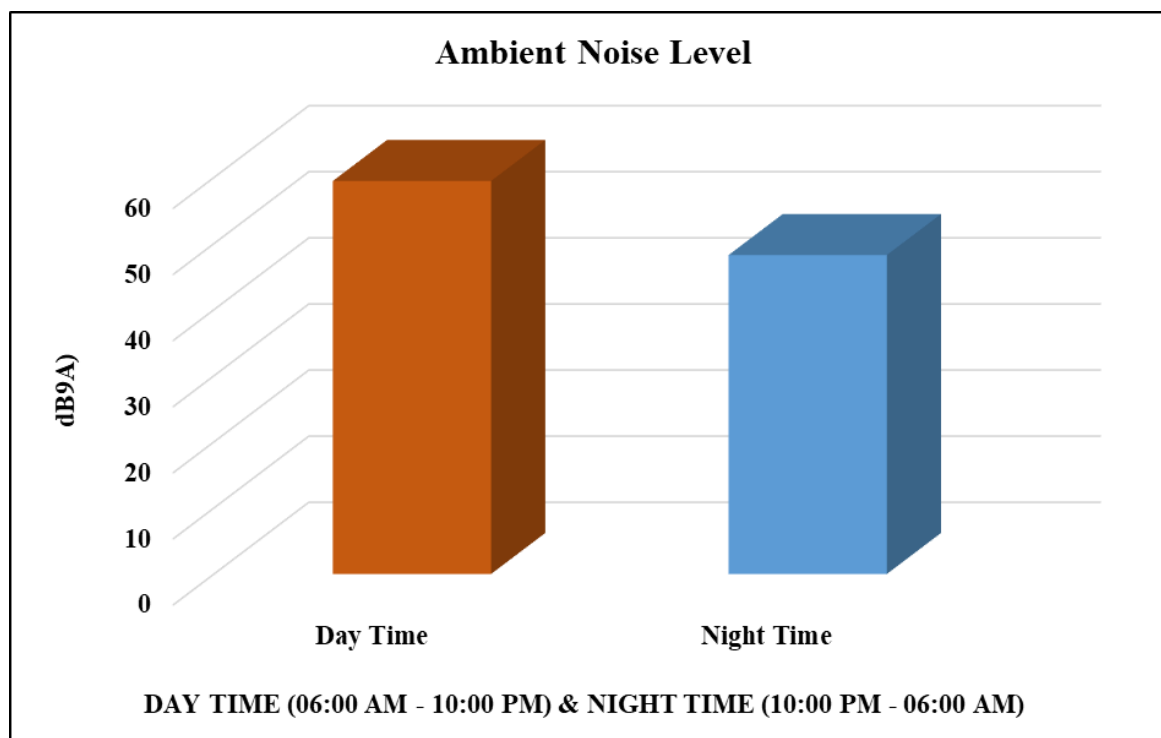


Figure 3.5: Day and Night Time noise Level near Project site

Table-3.10: Noise Standards as per CPCB Schedule rule 3(1) and 4(1)

| Area Code | Category of Area/Zone | Limits in dB(A) Leq | |
|-----------|-----------------------|---------------------|------------|
| | | Day Time | Night Time |
| A | Industrial Area | 75 | 70 |
| B | Commercial Area | 65 | 55 |
| C | Residential Area | 55 | 45 |
| D | Silence Zone | 50 | 40 |

3.3.4 Discussion on Ambient Noise Levels in the Study Area

Day Time Noise Levels (L_{day}):

The day time noise level at monitoring station was found 59.46 dB(A), which is within limits prescribed for industrial area i.e. 75 dB (A).

Night Time Noise Levels (L_{night}):

The night time noise level at monitoring station was found 48.25 dB(A), which is within limit prescribed for industrial area i.e. 70 dB (A).

3.4 GROUND WATER QUALITY MONITORING

3.4.1 Ground water Quality Monitoring Locations

Keeping in view the importance of ground water, sample of ground water was collected from the project site for the assessment of impacts of the project on the groundwater quality.

Water sample was collected from the project site. The sample was analyzed for various parameters to compare with the standards for Ground water as per IS: 10500 for Groundwater sources. The details of water sampling locations are given in **Table-3.11**.

Table-3.11: Details of Water Quality Monitoring Station

| Sr. No | Location Code | Location name and description | Date of Monitoring |
|--------|---------------|-------------------------------|----------------------------------|
| 1. | GW - 01 | Borewell (Near Project Site) | 01 st April, 2023 |
| 2. | GW - 01 | Borewell (Near Project Site) | 23 rd May, 2023 |
| 3. | GW - 01 | Borewell (Near Project Site) | 15 th June, 2023 |
| 4. | GW - 01 | Borewell (Near Project Site) | 26 th July, 2023 |
| 5. | GW - 01 | Borewell (Near Project Site) | 15 th August, 2023 |
| 6. | GW - 01 | Borewell (Near Project Site) | 20 th September, 2023 |

3.4.2 Methodology of ground water Quality Monitoring

Sampling of ground water was carried out on 01.04.2023, 23.05.2023, 15.06.2023, 26.07.2023, 15.08.2023 and 20.09.2023. Samples were collected as grab sample and sampling forms are filled in as per the sampling plan. The preservative sample were properly added to preserve as per standard operating procedures (SOP) and stored immediately in ice boxes, which were ensured for appropriate temperatures. **Sample for chemical analysis was collected in polyethylene carboys. Sample collected for metal content were acidified to <2 pH with 1 ml HNO₃. A sample for bacteriological analysis was collected in sterilized glass bottles.**

Soon after the completion of sampling, chain of custody sheets for the samples are filled in and then they were transported by road to Environmental & Technical Research Centre, Lucknow for further analysis. Proper care was taken during packing and transportation of samples. All the samples reached the central laboratory within the holding times for different parameters. After ensuring the same the samples were forwarded immediately for analysis.

The samples were analyzed as per the standard procedures specified in 'Standard Methods for the Examination of Water and Wastewater' published by American Public Health Association (APHA) and CPCB. The analytical techniques and the test methods adopted for testing of ground water are given in **Table-3.12 to Table-3.17.**

3.4.3 Ground water Quality Monitoring Results

The detailed Ground water quality monitoring results are presented in **Table-3.12 to Table-3.17.**

| | |
|--|---|
| Six Monthly Compliance Report for Expansion of existing Molasses based Distillery at P.O. Rohana Mill, Block Charthawal, tehsil and District: Muzaffarnagar (U.P.) by M/s Indian Potash Limited (Distillery Unit) | EC Compliance April, 2023 to September, 2023 |
|--|---|

Table-3.12:
Ground water Quality Results at Borewell near Project site (April, 2023)

| Sr. No | Test Parameter | Unit | Protocol/Test Method | Result | Range of testing /limit of detection | Indian Standard 10500: 2012 | |
|-----------------------------|---|-------------|--|-----------|--------------------------------------|--|---------------|
| | | | | | | Desirable | Permissible |
| Physico-chemical Parameters | | | | | | | |
| 1 | Colour | Hazen | IS: 3025 (Part-4): 1983 Reaffirmed: 2017 | <5.0 | 5 - 30 | 5 | 15 |
| 2 | Odour | - | IS: 3025 (Part-5): 1983 Reaffirmed: 2017 | Agreeable | Qualitative | Agreeable | Agreeable |
| 3 | pH | - | APHA 23 rd Ed. 2017-4500 H ⁺ | 7.5 | 1 - 14 | 6.5-8.5 | No Relaxation |
| 4 | Turbidity | NTU | APHA 23 rd Ed. 2017-2130 B | <2.0 | 2 - 40 | 1 | 5 |
| 5 | Total Dissolved Solids (TDS) | mg/l | IS: 3025 (Part-16): 1984 Reaffirmed: 2017 | 386.4 | 10 - 5000 | 500 | 2000 |
| 6 | Ammonia (as total ammonia-N) | mg/l | APHA 23 rd Ed. 2017-4500-NH ₃ F | <0.5 | 0.5 - 2 | 0.5 | No Relaxation |
| 7 | Anionic Detergents (as MBAS) | mg/l | APHA 23 rd Ed. 2017-5540 C | <0.05 | 0.05 - 0.5 | 0.2 | 1.0 |
| 8 | Calcium as Ca | mg/l | IS: 3025 (Part-40): 1991 Reaffirmed: 2019 | 52.8 | 2.0 - 600 | 75 | 200 |
| 9 | Magnesium as Mg | mg/l | APHA 23 rd Ed. 2017-3500 Mg, B | 30.13 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl ⁻ B | 30.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F ⁻ C | 0.35 | 0.02 - 5.0 | 1.0 | 1.5 |
| 12 | Free Residual Chlorine | mg/l | IS: 3025 (Part-26): 1986 Reaffirmed: 2019 | <0.1 | 0.1 - 5.0 | 0.2 | 1.0 |
| 13 | Nitrate as NO ₃ | mg/l | IS: 3025 (Part-34): 1986 Reaffirmed: 2019 | <1.0 | 1.0 - 70 | 45 | No Relaxation |
| 14 | Phenolic Compound (as C ₆ H ₅ OH) | mg/l | APHA 23 rd Ed. 2017-5530 C | <0.001 | 0.001 - 0.005 | 0.001 | 0.002 |
| 15 | Sulphate as SO ₄ | mg/l | APHA 23 rd Ed. 2017-4500- SO ₄ ²⁻ | 26.0 | 1.0 - 500 | 200 | 400 |
| 16 | Alkalinity as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2320 B | 280.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 256.0 | 5.0 - 800 | 200 | 600 |
| 18 | Aluminium as Al | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.015 | 0.015 - 5.0 | 0.03 | 0.2 |
| 19 | Boron as B | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 2.0 | 0.5 | 1.0 |
| 20 | Copper as Cu | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.03 | 0.03 - 10 | 0.05 | 1.5 |
| 21 | Iron as Fe | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.11 | 0.05 - 20 | 0.3 | No Relaxation |
| 22 | Manganese as Mn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.05 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.36 | 0.05 - 15 | 5 | 15 |
| 24 | Cadmium as Cd | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 2.0 | 0.003 | No Relaxation |
| 25 | Lead as Pb | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.01 | 0.01 - 10 | 0.01 | No Relaxation |
| 26 | Mercury as Hg | µg/l | APHA 23 rd Ed. 2017-3112 B | <0.5 | 0.5 - 1000 | 1.0 | No Relaxation |
| 27 | Nickel as Ni | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 5.0 | 0.02 | No Relaxation |
| 28 | Arsenic as As | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.02 | 0.02 - 2.0 | 0.01 | 0.05 |
| 29 | Total Chromium | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.03 | 0.03 - 5.0 | 0.05 | No Relaxation |
| Microbiological Parameters | | | | | | | |
| 30 | <i>E. coli</i> | MPN/ 100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |
| 31 | <i>T. coli</i> | MPN/ 100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |

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| Six Monthly Compliance Report for Expansion of existing Molasses based Distillery at P.O. Rohana Mill, Block Charthawal, tehsil and District: Muzaffarnagar (U.P.) by M/s Indian Potash Limited (Distillery Unit) | EC Compliance April, 2023 to September, 2023 |
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**Table-3.13:
Ground water Quality Results at Borewell near Project site (May, 2023)**

| Sr. No | Test Parameter | Unit | Protocol/Test Method | Result | Range of testing /limit of detection | Indian Standard 10500: 2012 | |
|-----------------------------|---|-------------|--|-----------|--------------------------------------|--|---------------|
| | | | | | | Desirable | Permissible |
| Physico-chemical Parameters | | | | | | | |
| 1 | Colour | Hazen | IS: 3025 (Part-4): 1983 Reaffirmed: 2017 | <5.0 | 5 - 30 | 5 | 15 |
| 2 | Odour | - | IS: 3025 (Part-5): 1983 Reaffirmed: 2017 | Agreeable | Qualitative | Agreeable | Agreeable |
| 3 | pH | - | APHA 23 rd Ed. 2017-4500 H ⁺ | 7.3 | 1 - 14 | 6.5-8.5 | No Relaxation |
| 4 | Turbidity | NTU | APHA 23 rd Ed. 2017-2130 B | <2.0 | 2 - 40 | 1 | 5 |
| 5 | Total Dissolved Solids (TDS) | mg/l | IS: 3025 (Part-16): 1984 Reaffirmed: 2017 | 402.6 | 10 - 5000 | 500 | 2000 |
| 6 | Ammonia (as total ammonia-N) | mg/l | APHA 23 rd Ed. 2017-4500-NH ₃ F | <0.5 | 0.5 - 2 | 0.5 | No Relaxation |
| 7 | Anionic Detergents (as MBAS) | mg/l | APHA 23 rd Ed. 2017-5540 C | <0.05 | 0.05 - 0.5 | 0.2 | 1.0 |
| 8 | Calcium as Ca | mg/l | IS: 3025 (Part-40): 1991 Reaffirmed: 2019 | 52.8 | 2.0 - 600 | 75 | 200 |
| 9 | Magnesium as Mg | mg/l | APHA 23 rd Ed. 2017-3500 Mg, B | 28.18 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl ⁻ B | 26.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F ⁻ C | 0.36 | 0.02 - 5.0 | 1.0 | 1.5 |
| 12 | Free Residual Chlorine | mg/l | IS: 3025 (Part-26): 1986 Reaffirmed: 2019 | <0.1 | 0.1 - 5.0 | 0.2 | 1.0 |
| 13 | Nitrate as NO ₃ | mg/l | IS: 3025 (Part-34): 1986 Reaffirmed: 2019 | <1.0 | 1.0 - 70 | 45 | No Relaxation |
| 14 | Phenolic Compound (as C ₆ H ₅ OH) | mg/l | APHA 23 rd Ed. 2017-5530 C | <0.001 | 0.001 - 0.005 | 0.001 | 0.002 |
| 15 | Sulphate as SO ₄ | mg/l | APHA 23 rd Ed. 2017-4500- SO ₄ ²⁻ | 28.0 | 1.0 - 500 | 200 | 400 |
| 16 | Alkalinity as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2320 B | 288.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 248.0 | 5.0 - 800 | 200 | 600 |
| 18 | Aluminium as Al | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.015 | 0.015 - 5.0 | 0.03 | 0.2 |
| 19 | Boron as B | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 2.0 | 0.5 | 1.0 |
| 20 | Copper as Cu | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.03 | 0.03 - 10 | 0.05 | 1.5 |
| 21 | Iron as Fe | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.15 | 0.05 - 20 | 0.3 | No Relaxation |
| 22 | Manganese as Mn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.04 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.58 | 0.05 - 15 | 5 | 15 |
| 24 | Cadmium as Cd | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 2.0 | 0.003 | No Relaxation |
| 25 | Lead as Pb | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.01 | 0.01 - 10 | 0.01 | No Relaxation |
| 26 | Mercury as Hg | µg/l | APHA 23 rd Ed. 2017-3112 B | <0.5 | 0.5 - 1000 | 1.0 | No Relaxation |
| 27 | Nickel as Ni | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 5.0 | 0.02 | No Relaxation |
| 28 | Arsenic as As | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.02 | 0.02 - 2.0 | 0.01 | 0.05 |
| 29 | Total Chromium | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.03 | 0.03 - 5.0 | 0.05 | No Relaxation |
| Microbiological Parameters | | | | | | | |
| 30 | <i>E. coli</i> | MPN/ 100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |
| 31 | <i>T. coli</i> | MPN/ 100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |

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| Six Monthly Compliance Report for Expansion of existing Molasses based Distillery at P.O. Rohana Mill, Block Charthawal, tehsil and District: Muzaffarnagar (U.P.) by M/s Indian Potash Limited (Distillery Unit) | EC Compliance April, 2023 to September, 2023 |
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Table-3.14:
Ground water Quality Results at Borewell Near Project site (June, 2023)

| Sr. No | Test Parameter | Unit | Protocol/Test Method | Result | Range of testing /limit of detection | Indian Standard 10500: 2012 | |
|-----------------------------|---|-------------|--|-----------|--------------------------------------|--|---------------|
| | | | | | | Desirable | Permissible |
| Physico-chemical Parameters | | | | | | | |
| 1 | Colour | Hazen | IS: 3025 (Part-4): 1983 Reaffirmed: 2017 | <5.0 | 5 - 30 | 5 | 15 |
| 2 | Odour | - | IS: 3025 (Part-5): 1983 Reaffirmed: 2017 | Agreeable | Qualitative | Agreeable | Agreeable |
| 3 | pH | - | APHA 23 rd Ed. 2017-4500 H ⁺ | 7.4 | 1 - 14 | 6.5-8.5 | No Relaxation |
| 4 | Turbidity | NTU | APHA 23 rd Ed. 2017-2130 B | <2.0 | 2 - 40 | 1 | 5 |
| 5 | Total Dissolved Solids (TDS) | mg/l | IS: 3025 (Part-16): 1984 Reaffirmed: 2017 | 398.4 | 10 - 5000 | 500 | 2000 |
| 6 | Ammonia (as total ammonia-N) | mg/l | APHA 23 rd Ed. 2017-4500-NH ₃ F | <0.5 | 0.5 - 2 | 0.5 | No Relaxation |
| 7 | Anionic Detergents (as MBAS) | mg/l | APHA 23 rd Ed. 2017-5540 C | <0.05 | 0.05 - 0.5 | 0.2 | 1.0 |
| 8 | Calcium as Ca | mg/l | IS: 3025 (Part-40): 1991 Reaffirmed: 2019 | 57.6 | 2.0 - 600 | 75 | 200 |
| 9 | Magnesium as Mg | mg/l | APHA 23 rd Ed. 2017-3500 Mg, B | 30.13 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl ⁻ B | 28.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F ⁻ C | 0.34 | 0.02 - 5.0 | 1.0 | 1.5 |
| 12 | Free Residual Chlorine | mg/l | IS: 3025 (Part-26): 1986 Reaffirmed: 2019 | <0.1 | 0.1 - 5.0 | 0.2 | 1.0 |
| 13 | Nitrate as NO ₃ | mg/l | IS: 3025 (Part-34): 1986 Reaffirmed: 2019 | <1.0 | 1.0 - 70 | 45 | No Relaxation |
| 14 | Phenolic Compound (as C ₆ H ₅ OH) | mg/l | APHA 23 rd Ed. 2017-5530 C | <0.001 | 0.001 - 0.005 | 0.001 | 0.002 |
| 15 | Sulphate as SO ₄ | mg/l | APHA 23 rd Ed. 2017-4500- SO ₄ ²⁻ | 26.0 | 1.0 - 500 | 200 | 400 |
| 16 | Alkalinity as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2320 B | 296.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 268.0 | 5.0 - 800 | 200 | 600 |
| 18 | Aluminium as Al | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.015 | 0.015 - 5.0 | 0.03 | 0.2 |
| 19 | Boron as B | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 2.0 | 0.5 | 1.0 |
| 20 | Copper as Cu | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.03 | 0.03 - 10 | 0.05 | 1.5 |
| 21 | Iron as Fe | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.10 | 0.05 - 20 | 0.3 | No Relaxation |
| 22 | Manganese as Mn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.03 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.42 | 0.05 - 15 | 5 | 15 |
| 24 | Cadmium as Cd | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 2.0 | 0.003 | No Relaxation |
| 25 | Lead as Pb | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.01 | 0.01 - 10 | 0.01 | No Relaxation |
| 26 | Mercury as Hg | µg/l | APHA 23 rd Ed. 2017-3112 B | <0.5 | 0.5 - 1000 | 1.0 | No Relaxation |
| 27 | Nickel as Ni | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 5.0 | 0.02 | No Relaxation |
| 28 | Arsenic as As | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.02 | 0.02 - 2.0 | 0.01 | 0.05 |
| 29 | Total Chromium | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.03 | 0.03 - 5.0 | 0.05 | No Relaxation |
| Microbiological Parameters | | | | | | | |
| 30 | <i>E. coli</i> | MPN/ 100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |
| 31 | <i>T. coli</i> | MPN/ 100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |

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| Six Monthly Compliance Report for Expansion of existing Molasses based Distillery at P.O. Rohana Mill, Block Charthawal, tehsil and District: Muzaffarnagar (U.P.) by M/s Indian Potash Limited (Distillery Unit) | EC Compliance April, 2023 to September, 2023 |
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**Table-3.15:
Ground water Quality Results at Borewell near Project site (July, 2023)**

| Sr. No | Test Parameter | Unit | Protocol/Test Method | Result | Range of testing /limit of detection | Indian Standard 10500: 2012 | |
|-----------------------------|---|-------------|--|-----------|--------------------------------------|--|---------------|
| | | | | | | Desirable | Permissible |
| Physico-chemical Parameters | | | | | | | |
| 1 | Colour | Hazen | IS: 3025 (Part-4): 1983 Reaffirmed: 2017 | <5.0 | 5 - 30 | 5 | 15 |
| 2 | Odour | - | IS: 3025 (Part-5): 1983 Reaffirmed: 2017 | Agreeable | Qualitative | Agreeable | Agreeable |
| 3 | pH | - | APHA 23 rd Ed. 2017-4500 H ⁺ | 7.5 | 1 - 14 | 6.5-8.5 | No Relaxation |
| 4 | Turbidity | NTU | APHA 23 rd Ed. 2017-2130 B | <2.0 | 2 - 40 | 1 | 5 |
| 5 | Total Dissolved Solids (TDS) | mg/l | IS: 3025 (Part-16): 1984 Reaffirmed: 2017 | 396.0 | 10 - 5000 | 500 | 2000 |
| 6 | Ammonia (as total ammonia-N) | mg/l | APHA 23 rd Ed. 2017-4500-NH ₃ F | <0.5 | 0.5 - 2 | 0.5 | No Relaxation |
| 7 | Anionic Detergents (as MBAS) | mg/l | APHA 23 rd Ed. 2017-5540 C | <0.05 | 0.05 - 0.5 | 0.2 | 1.0 |
| 8 | Calcium as Ca | mg/l | IS: 3025 (Part-40): 1991 Reaffirmed: 2019 | 54.4 | 2.0 - 600 | 75 | 200 |
| 9 | Magnesium as Mg | mg/l | APHA 23 rd Ed. 2017-3500 Mg, B | 29.16 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl ⁻ B | 30.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F ⁻ C | 0.36 | 0.02 - 5.0 | 1.0 | 1.5 |
| 12 | Free Residual Chlorine | mg/l | IS: 3025 (Part-26): 1986 Reaffirmed: 2019 | <0.1 | 0.1 - 5.0 | 0.2 | 1.0 |
| 13 | Nitrate as NO ₃ | mg/l | IS: 3025 (Part-34): 1986 Reaffirmed: 2019 | <1.0 | 1.0 - 70 | 45 | No Relaxation |
| 14 | Phenolic Compound (as C ₆ H ₅ OH) | mg/l | APHA 23 rd Ed. 2017-5530 C | <0.001 | 0.001 - 0.005 | 0.001 | 0.002 |
| 15 | Sulphate as SO ₄ | mg/l | APHA 23 rd Ed. 2017-4500- SO ₄ ²⁻ | 28.0 | 1.0 - 500 | 200 | 400 |
| 16 | Alkalinity as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2320 B | 284.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 256.0 | 5.0 - 800 | 200 | 600 |
| 18 | Aluminium as Al | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.015 | 0.015 - 5.0 | 0.03 | 0.2 |
| 19 | Boron as B | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 2.0 | 0.5 | 1.0 |
| 20 | Copper as Cu | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.03 | 0.03 - 10 | 0.05 | 1.5 |
| 21 | Iron as Fe | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.09 | 0.05 - 20 | 0.3 | No Relaxation |
| 22 | Manganese as Mn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.06 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.56 | 0.05 - 15 | 5 | 15 |
| 24 | Cadmium as Cd | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 2.0 | 0.003 | No Relaxation |
| 25 | Lead as Pb | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.01 | 0.01 - 10 | 0.01 | No Relaxation |
| 26 | Mercury as Hg | µg/l | APHA 23 rd Ed. 2017-3112 B | <0.5 | 0.5 - 1000 | 1.0 | No Relaxation |
| 27 | Nickel as Ni | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 5.0 | 0.02 | No Relaxation |
| 28 | Arsenic as As | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.02 | 0.02 - 2.0 | 0.01 | 0.05 |
| 29 | Total Chromium | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.03 | 0.03 - 5.0 | 0.05 | No Relaxation |
| Microbiological Parameters | | | | | | | |
| 30 | <i>E. coli</i> | MPN/ 100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |
| 31 | <i>T. coli</i> | MPN/ 100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |

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| Six Monthly Compliance Report for Expansion of existing Molasses based Distillery at P.O. Rohana Mill, Block Charthawal, tehsil and District: Muzaffarnagar (U.P.) by M/s Indian Potash Limited (Distillery Unit) | EC Compliance April, 2023 to September, 2023 |
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Table-3.16:
Ground water Quality Results at Borewell Near Project site (August, 2023)

| Sr. No | Test Parameter | Unit | Protocol/Test Method | Result | Range of testing /limit of detection | Indian Standard 10500: 2012 | |
|-----------------------------|---|-------------|--|-----------|--------------------------------------|--|---------------|
| | | | | | | Desirable | Permissible |
| Physico-chemical Parameters | | | | | | | |
| 1 | Colour | Hazen | IS: 3025 (Part-4): 1983 Reaffirmed: 2017 | <5.0 | 5 - 30 | 5 | 15 |
| 2 | Odour | - | IS: 3025 (Part-5): 1983 Reaffirmed: 2017 | Agreeable | Qualitative | Agreeable | Agreeable |
| 3 | pH | - | APHA 23 rd Ed. 2017-4500 H ⁺ | 7.3 | 1 - 14 | 6.5-8.5 | No Relaxation |
| 4 | Turbidity | NTU | APHA 23 rd Ed. 2017-2130 B | <2.0 | 2 - 40 | 1 | 5 |
| 5 | Total Dissolved Solids (TDS) | mg/l | IS: 3025 (Part-16): 1984 Reaffirmed: 2017 | 375.6 | 10 - 5000 | 500 | 2000 |
| 6 | Ammonia (as total ammonia-N) | mg/l | APHA 23 rd Ed. 2017-4500-NH ₃ F | <0.5 | 0.5 - 2 | 0.5 | No Relaxation |
| 7 | Anionic Detergents (as MBAS) | mg/l | APHA 23 rd Ed. 2017-5540 C | <0.05 | 0.05 - 0.5 | 0.2 | 1.0 |
| 8 | Calcium as Ca | mg/l | IS: 3025 (Part-40): 1991 Reaffirmed: 2019 | 54.4 | 2.0 - 600 | 75 | 200 |
| 9 | Magnesium as Mg | mg/l | APHA 23 rd Ed. 2017-3500 Mg, B | 30.13 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl ⁻ B | 28.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F ⁻ C | 0.39 | 0.02 - 5.0 | 1.0 | 1.5 |
| 12 | Free Residual Chlorine | mg/l | IS: 3025 (Part-26): 1986 Reaffirmed: 2019 | <0.1 | 0.1 - 5.0 | 0.2 | 1.0 |
| 13 | Nitrate as NO ₃ | mg/l | IS: 3025 (Part-34): 1986 Reaffirmed: 2019 | <1.0 | 1.0 - 70 | 45 | No Relaxation |
| 14 | Phenolic Compound (as C ₆ H ₅ OH) | mg/l | APHA 23 rd Ed. 2017-5530 C | <0.001 | 0.001 - 0.005 | 0.001 | 0.002 |
| 15 | Sulphate as SO ₄ | mg/l | APHA 23 rd Ed. 2017-4500- SO ₄ ²⁻ | 30.0 | 1.0 - 500 | 200 | 400 |
| 16 | Alkalinity as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2320 B | 280.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 260.0 | 5.0 - 800 | 200 | 600 |
| 18 | Aluminium as Al | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.015 | 0.015 - 5.0 | 0.03 | 0.2 |
| 19 | Boron as B | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 2.0 | 0.5 | 1.0 |
| 20 | Copper as Cu | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.03 | 0.03 - 10 | 0.05 | 1.5 |
| 21 | Iron as Fe | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.13 | 0.05 - 20 | 0.3 | No Relaxation |
| 22 | Manganese as Mn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.02 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.64 | 0.05 - 15 | 5 | 15 |
| 24 | Cadmium as Cd | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 2.0 | 0.003 | No Relaxation |
| 25 | Lead as Pb | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.01 | 0.01 - 10 | 0.01 | No Relaxation |
| 26 | Mercury as Hg | µg/l | APHA 23 rd Ed. 2017-3112 B | <0.5 | 0.5 - 1000 | 1.0 | No Relaxation |
| 27 | Nickel as Ni | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 5.0 | 0.02 | No Relaxation |
| 28 | Arsenic as As | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.02 | 0.02 - 2.0 | 0.01 | 0.05 |
| 29 | Total Chromium | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.03 | 0.03 - 5.0 | 0.05 | No Relaxation |
| Microbiological Parameters | | | | | | | |
| 30 | <i>E. coli</i> | MPN/ 100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |
| 31 | <i>T. coli</i> | MPN/ 100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |

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| Six Monthly Compliance Report for Expansion of existing Molasses based Distillery at P.O. Rohana Mill, Block Charthawal, tehsil and District: Muzaffarnagar (U.P.) by M/s Indian Potash Limited (Distillery Unit) | EC Compliance April, 2023 to September, 2023 |
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Table-3.17:
Ground water Quality Results at Borewell Within Premises (September, 2023)

| Sr. No | Test Parameter | Unit | Protocol/Test Method | Result | Range of testing /limit of detection | Indian Standard 10500: 2012 | |
|-----------------------------|---|-------------|--|-----------|--------------------------------------|--|---------------|
| | | | | | | Desirable | Permissible |
| Physico-chemical Parameters | | | | | | | |
| 1 | Colour | Hazen | IS: 3025 (Part-4): 1983 Reaffirmed: 2017 | <5.0 | 5 - 30 | 5 | 15 |
| 2 | Odour | - | IS: 3025 (Part-5): 1983 Reaffirmed: 2017 | Agreeable | Qualitative | Agreeable | Agreeable |
| 3 | pH | - | APHA 23 rd Ed. 2017-4500 H ⁺ | 7.4 | 1 - 14 | 6.5-8.5 | No Relaxation |
| 4 | Turbidity | NTU | APHA 23 rd Ed. 2017-2130 B | <2.0 | 2 - 40 | 1 | 5 |
| 5 | Total Dissolved Solids (TDS) | mg/l | IS: 3025 (Part-16): 1984 Reaffirmed: 2017 | 392.0 | 10 - 5000 | 500 | 2000 |
| 6 | Ammonia (as total ammonia-N) | mg/l | APHA 23 rd Ed. 2017-4500-NH ₃ F | <0.5 | 0.5 - 2 | 0.5 | No Relaxation |
| 7 | Anionic Detergents (as MBAS) | mg/l | APHA 23 rd Ed. 2017-5540 C | <0.05 | 0.05 - 0.5 | 0.2 | 1.0 |
| 8 | Calcium as Ca | mg/l | IS: 3025 (Part-40): 1991 Reaffirmed: 2019 | 56.3 | 2.0 - 600 | 75 | 200 |
| 9 | Magnesium as Mg | mg/l | APHA 23 rd Ed. 2017-3500 Mg, B | 30.13 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl ⁻ B | 26.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F ⁻ C | 0.34 | 0.02 - 5.0 | 1.0 | 1.5 |
| 12 | Free Residual Chlorine | mg/l | IS: 3025 (Part-26): 1986 Reaffirmed: 2019 | <0.1 | 0.1 - 5.0 | 0.2 | 1.0 |
| 13 | Nitrate as NO ₃ | mg/l | IS: 3025 (Part-34): 1986 Reaffirmed: 2019 | <1.0 | 1.0 - 70 | 45 | No Relaxation |
| 14 | Phenolic Compound (as C ₆ H ₅ OH) | mg/l | APHA 23 rd Ed. 2017-5530 C | <0.001 | 0.001 - 0.005 | 0.001 | 0.002 |
| 15 | Sulphate as SO ₄ | mg/l | APHA 23 rd Ed. 2017-4500- SO ₄ ²⁻ | 28.0 | 1.0 - 500 | 200 | 400 |
| 16 | Alkalinity as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2320 B | 292.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 264.0 | 5.0 - 800 | 200 | 600 |
| 18 | Aluminium as Al | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.015 | 0.015 - 5.0 | 0.03 | 0.2 |
| 19 | Boron as B | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 2.0 | 0.5 | 1.0 |
| 20 | Copper as Cu | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.03 | 0.03 - 10 | 0.05 | 1.5 |
| 21 | Iron as Fe | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.14 | 0.05 - 20 | 0.3 | No Relaxation |
| 22 | Manganese as Mn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.04 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.58 | 0.05 - 15 | 5 | 15 |
| 24 | Cadmium as Cd | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 2.0 | 0.003 | No Relaxation |
| 25 | Lead as Pb | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.01 | 0.01 - 10 | 0.01 | No Relaxation |
| 26 | Mercury as Hg | µg/l | APHA 23 rd Ed. 2017-3112 B | <0.5 | 0.5 - 1000 | 1.0 | No Relaxation |
| 27 | Nickel as Ni | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.05 | 0.05 - 5.0 | 0.02 | No Relaxation |
| 28 | Arsenic as As | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.02 | 0.02 - 2.0 | 0.01 | 0.05 |
| 29 | Total Chromium | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | <0.03 | 0.03 - 5.0 | 0.05 | No Relaxation |
| Microbiological Parameters | | | | | | | |
| 30 | <i>E. coli</i> | MPN/ 100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |
| 31 | <i>T. coli</i> | MPN/ 100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |

3.5 SOIL MONITORING

3.5.1 Soil Monitoring Locations

The objective of the soil monitoring is to identify the impacts of ongoing project activities on soil quality and also predict impacts, which have arisen due to execution of various constructions allied activities. Accordingly, a study of assessment of the soil quality has been carried out.

To assess impacts of ongoing project activities on the soil in the area, the Physico-chemical characteristics of soils were examined by obtaining soil samples from selected points and analysis of the same. Single sample of soil was collected from the project site for studying soil characteristics, the location of which is listed in **Table-3.18**.

Table-3.18: Details of Soil Monitoring Stations

| Sr. No | Location Code | Location name and description |
|--------|---------------|-------------------------------|
| 1. | SQ - 01 | Near Project site |

3.5.2 Methodology of Soil Monitoring

The sampling has been done in line with IS: 2720 & Methods of Soil Analysis, Part-01st, 02nd Edition, 1986 of American Society for Agronomy and Soil Science Society of America. The homogenized samples were analyzed for physical and chemical characteristics (physical, chemical and heavy metal concentrations). The soil samples were collected in the month of September on 15.09.2023.

The samples have been analyzed as per the established scientific methods for Physico-chemical parameters. The heavy metals have been analyzed by using Atomic Absorption Spectrophotometer.

3.5.3 Soil Monitoring Results

Single sample of soil is collected from the site to check the quality of soil of the study area. The Physico-chemical characteristics of the soil, as obtained from the analysis of the soil sample, are presented in **Table-3.19**.

Table-3.20: Physico-Chemical Characteristics of Soil at near Plant Site

| Sr. No. | Test Parameter | Unit | Protocol/Test Method | Result | Range of testing /limit of detection |
|----------------|--------------------------------|-------------|--|----------------|---|
| 1 | pH | - | IS: 2720 (Part-26): 1987 Reaffirmed: 2021 | 7.2 | 1 - 14 |
| 2 | Electrical Conductivity | µmhos/cm | IS: 14767:2000 Reaffirmed:2021 | 298.0 | 1.0 - 40000 |
| 3 | Moisture content | % | IS: 2720 (Part-2): 1973 Reaffirmed: 2020 | 3.10 | 1.0 - 50 |
| 7 | Sulphur | Kg/Hec | IS:14685: 1999 Reaffirmed: 2019 | 12.58 | 5.0 - 100 |
| 8 | Boron | mg/kg | Method Manual of Soil Testing in India | <4.0 | 4.0 - 100 |
| 9 | Copper | mg/kg | Method Manual of Soil Testing in India | 0.39 | 0.3 - 500 |
| 10 | Zinc | mg/kg | Method Manual of Soil Testing in India | 5.36 | 1.0 - 500 |
| 11 | Iron | mg/kg | Method Manual of Soil Testing in India | 96.4 | 5.0 - 500 |
| 12 | Manganese | mg/kg | Method Manual of Soil Testing in India | 8.4 | 5.0 - 500 |

3.5.4 Discussion on Soil Characteristics in the Study Area

The soil in study area is characterized by moderate organic content. The soil quality in the project area has not been affected by the project activities



UTTAR PRADESH POLLUTION CONTROL BOARD

Building. No TC-12V Vibhuti Khand, Gomti Nagar, Lucknow-226010

Phone:0522-2720828,2720831, Fax:0522-2720764, Email: info@uppcb.com, Website: www.uppcb.com

Validity Period :25/10/2020 To 24/10/2025

Ref No. -

Dated:- 03/11/2020

107490/UPPCB/MuzaffarNagar(LAB)/CTE/MUZAFFARNAGAR/202

0

To ,

Shri Indian Potash Ltd. (Rohana Unit: Distillery)

M/s Indian Potash Ltd Rohana Unit Distillery

Village Rohana Mill, Block Charthawal, Tehsil District Muzaffarnagar (U.P.), MUZAFFAR NAGAR, 251202

MUZAFFARNAGAR

Sub : Consent to Establish for New Unit/Expansion/Diversification under the provisions of Water (Prevention and control of pollution) Act, 1974 as amended and Air (Prevention and control of Pollution) Act, 1981 as amended.

Please refer to your Application Form No.- 9844207 dated - 16/10/2020. After examining the application with respect to pollution angle, Consent to Establish (CTE) is granted subject to the compliance of following conditions :

1. Consent to Establish is being issued for following specific details :

A- Site along with geo-coordinates :

B- Main Raw Material :

| Main Raw Material Details | | |
|--|------------------------|-----------------------|
| Name of Raw Material | Raw Material Unit Name | Raw Material Quantity |
| Molasses & Sugarcane Syrup 284 MT/DAY of C-Molasses or 200 MT/Day of B-Heavy Molasses or 218 MT/Day of 50% Sugar Syrup | Metric Tonnes/Day | . |

C- Product with capacity :

| Product Detail | |
|---------------------------------------|------------------|
| Name of Product | Product Quantity |
| Distillery Unit: 65.3 KLD (RS/ENA/AA) | . |
| 2 MW POWER | . |

D- By-Product if any with capacity :

| By Product Detail | | | |
|--------------------|-------------------|--------------------------|--------------------------|
| Name of By Product | Unit Name | Licence Product Capacity | Install Product Capacity |
| . | Metric Tonnes/Day | . | . |

E- Water Requirement (in KLD) and its Source :

| Source of Water Details | | |
|-------------------------|--------------------|-----------------|
| Source Type | Name of Source | Quantity (KL/D) |
| River | Rohana minor canal | 445.0 |

F- Quantity of effluent (In KLD) :

| Effluent Details | |
|--------------------|-----------------|
| Source Consumption | Quantity (KL/D) |
| Industrial | 445.0 |
| Domestic | 20.0 |

G- Fuel used in the equipment/machinery Name and Quantity (per day) :

| Fuel Consumption Details | | |
|--------------------------|----------------------|-----------------------------------|
| Fuel | Consumption(tpd/kld) | Use |
| Coal | 60 | USED AS FUEL IN SLOP FIRED BOILER |
| Others | 166 | USED AS FUEL IN SLOP FIRED BOILER |

For any change in above mentioned parameters, it will be mandatory to obtain Consent to Establish again. No further expansion or modification in the plant shall be carried out without prior approval of U.P. Pollution Control Board.

- You are directed to furnish the progress of Establishment of plant and machinery, green belt, Effluent Treatment Plant and Air pollution control devices, by 10th day of completion of subsequent quarter in the Board.
- Copy of the work order/purchase order, regarding instruction and supply of proposed Effluent Treatment Plant/Sewerage Treatment Plant /Air Pollution control System shall be submitted by the industry within three months to the Board.
- Industry will not start its operation, unless CTO is obtained under water (Prevention and control of Pollution) Act, 1974 and Air (Prevention and control of Pollution) Act, 1981 from the Board.
- It is mandatory to submit Air and Water consent Application complete in all respect, four months before start of operation, to the U.P. Pollution Control Board.
- Legal action under water (Prevention and control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 may be initiated against the industry without any prior information, in case of non compliance of above conditions.
- The industry shall install facilities to ensure Zero Liquid Discharge (ZLD) such as Multi Effect Evaporator (MEE), Condensate Polishing Unit(CPU) and Slop/ incineration boiler etc .
- Industry shall develop proper green belt and rain water harvesting system as per guidelines. For green belt at least 8 feet height plants should be planted which shall be properly protected as proper irrigation and maturing arrangements shall be made. For the development of the green belt the guidelines issued vide Board office order no. H10405/220/2018/02 Dt. 16-02-2018 shall be complied.

Specific Conditions:

1. This Consent to Establish is valid for the production of Rectified Spirit/ENA/Absolute Alcohol-65.3 KL/Day and Co-Generation-2 MW. In case of any change in production capacity, process, raw materials use etc. the industry will have to intimate the Board. For any enhancement of the above, fresh Consent to Establish has to be obtained from U.P. Pollution Control Board.
2. Industry shall comply the all condition of Environmental Clearance from SEIAA vide letter No. 395/Parya/SEAC/5764-5646/2019 dated-14.10.2020.
3. The industry shall install 22 TPH Slope Fired Boiler with ESP and 70 mt. stack height as APCS. The APCS will be maintained and operated in such a manner that emissions always conform to the standard laid down under the E.P Act 1986 as amended.
4. Industry shall maintain Online Continuous Effluent and emission Monitoring System (OCEMS) on ETP and stack & connect it with SPCBs and CPCB server, before start of production as per the direction of CPCB.
5. Industry shall comply the order passed by Hon'ble NGT time to time.
6. The industry shall install electromagnetic flow meter at water source and outlet of ETP, and maintain the records of water abstracted and recycled treated effluent. The treated effluent from the Effluent Treatment Plant shall be used completely in the manufacturing process. This CTE is valid only for Zero Liquid Discharge (ZLD).
7. The industry shall comply the provisions of Hazardous and Other Waste (Management and Transboundary Movement) Rules 2016 and shall obtain authorization for the disposal of hazardous waste.
8. Industry shall provide the NOC of the Irrigation Department for the Canal Water supply. No bore well shall be dig inside the factory premises for ground water abstraction. Industry shall use only surplus water of sugar unit and Canal Water for the manufacturing process.
9. The industry shall ensure provisions of Roof Top Rain Water Harvesting system and Ground Water Recharging Proposal/ compliance report should be sent to the Board within One month.
10. The industry shall provide adequate arrangement for fighting the accidental leakages/ discharge of any air pollutant/gas/liquid from the vessel, machinery etc. which are likely to cause fire hazard including environmental pollution.
11. Unit must ensure strict time bound compliance of suggestion/recommendation of "Charter for Water Recycling & Pollution Prevention in Distillery Industries" formulated by CPCB.
12. Industry shall make a correction in the environmental clearance obtained by SEIAA vide letter No. 395/Parya/SEAC/5764-5646/2019 dated-14.10.2020 in place of village Rohana Kalan to Village Bahedi and send a copy to the Board within 3 month.
13. A Bank Guarantee of Rs. 10,00,000/- (Rs. Ten Lacs only) shall be submitted within 15 days including the conditions mentioned at serial no. 1 to 12 which will be valid for two year otherwise this consent to establish shall be deemed to be withdrawn.

Please note that consent to Establish will be revoked, in case of, non compliance of any of the above mentioned conditions. Board reserves its right for amendment or cancellation of any of the conditions specified above. Industry is directed to submit its first compliance report regarding above mentioned specific and general conditions till 03/12/2020 in this office. Ensure to submit the regular compliance report otherwise this Consent to Establish will be revoked.

**Chief Environmental Officer,
Circle-3.**

Dated:- 03/11/2020

Copy To -

Regional Officer, U.P. Pollution Control Board, Muzaffarnagar.

**Chief Environmental Officer,
Circle-3.**



Uttar Pradesh Pollution Control Board

Building. No TC-12V Vibhuti Khand, Gomti Nagar, Lucknow-226010

Phone:0522-2720828,2720831, Fax:0522-2720764, Email: info@uppcb.in, Website: www.uppcb.com

165874/UPPCB/MuzaffarNagar(UPPCBRO)/CTO/both/MUZAFFARNAGAR/2022

Date: 01/11/2022

To,

M/s

INDIAN POTASH LIMITED DISTILLERY UNIT

Rohana kalan, Village - Bahedi, P.O. Rohana Mill, Block- Charthawal, Tehshil and District - Muzaffarnagar, (U.P.) , Pin- 251202,MUZAFFARNAGAR,251202

**Application Id-
17973323**

Consolidated Consent to Operate and Authorisation hereinafter referred to as the CCA (Consolidated Consent & authorization) (Fresh) under Section-25 of the Water (Prevention & Control of Pollution) Act, 1974 and under Section-21 of the Air (Prevention & Control of Pollution) Act, 1981

CCA is hereby granted to **INDIAN POTASH LIMITED DISTILLERY UNIT** located at **Rohana kalan, Village - Bahedi, P.O. Rohana Mill, Block- Charthawal, Tehshil and District - Muzaffarnagar, (U.P.) , Pin- 251202,MUZAFFARNAGAR,251202**. subject to the provisions of the **Water Act, Air Act** and the orders that may be made further and subject to following terms and conditions :-

1. This CCA **INDIAN POTASH LIMITED DISTILLERY UNIT** **granted for the period from 01/01/2023 to 31/12/2024** and valid for manufacturing of following products.

| S No | Product | Quantity | Unit |
|------|----------------------|----------|-----------------|
| 1 | CO-GEN POWER-2.0 MW | 2.0 | Megawatt |
| 2 | RS/ENA/AA - 65.3 KLD | 65.3 | Kilo Liters/Day |

2. Conditions under Water(Prevention and Control of Pollution) Act -1974 as amended :-

(i) The daily quantity of effluent discharge (KLD) :-

| Kind of Effluent | Quantity(KLD) | Treatment facility | Discharge point |
|-------------------|-------------------------------|--------------------|--------------------|
| Industrial | ZLD | ETP | ZLD |
| Domestic | SEPTIC TANK - 12.0 KLD | Septic Tank | SEPTIC TANK |

(ii) Trade Effluent Treatment and Disposal :-The applicant shall operate Effluent Treatment Plant consisting of primary/secondary and tertiary treatment as is required with reference to influent quantity and quality.

In case of stoppage of functioning of ETP, production has to be stopped immediately and this Board has to be intimated by fax/phone/email with a report in this regard to be dispatched immediately.

(iii) The treated effluent shall be recycled to the maximum extent and should be reused within the premises for gardening etc. Quality of the treated effluent shall meet to the following general and specific standards as prescribed under Environment (Protection) Rules, 1986 and applicable to the unit from time-to-time :-

Industrial Effluent Quality Standard

| S.No. | Parameter | Standard |
|-------|-----------|----------|
|-------|-----------|----------|

(iv) Sewage Treatment and Disposal :- The applicant shall provide comprehensive STP as is required with reference to influent quantity and quality. In case of stoppage of functioning of STP, production has to be stopped immediately and this Board has to be intimated by fax/phone/email with a report in this regard to be dispatched immediately.

(v) The treated sewage shall be reused in gardening as far as possible. The STP shall be maintained continuously so as to achieve the quality of the treated sewage to the following standards.

| S No. | Parameters | Standards |
|-------|----------------------------|-------------------------|
| 1 | pH | AS PER E(P) RULES, 1986 |
| 2 | BOD (mg/L) | AS PER E(P) RULES, 1986 |
| 3 | TSS (mg/L) | AS PER E(P) RULES, 1986 |
| 4 | Fecal Coliform (MPN/100ml) | AS PER E(P) RULES, 1986 |

3. Conditions under Air (Prevention and Control of Pollution) Act -1981 as amended :-

i) The applicant shall use following fuel and install a comprehensive control system consisting of control equipment as required with reference to generation of emissions and operate and maintain the same continuously so as to achieve the level of pollutants to the following standards.

Air Pollution Source Details

| S No. | Air Pollution Source | Type of fuel | Stack no | Control Device | Height of Stack |
|-------|------------------------------|---|----------|--------------------|---|
| 1 | 1 X 22 TPH SLOP FIRED BOILER | Rise Husk- 70 MTD and Slop- 166 Cubic Meter/Day | 01 | Particulate Matter | 70 METER STACK HEIGHT FROM GROUND LEVEL |

Emmission Quality Standards

| S No. | Stack no | Parameters | Standards |
|-------|----------|--------------------|-------------------------|
| 1 | 01 | Particulate Matter | AS PER E(P) RULES, 1986 |

In case of stoppage of functioning of air pollution control equipment, production has to be stopped immediately and this Board has to be intimated by fax/phone/email with a report in this regard to be dispatched immediately

(ii) The unit will not use any type of restricted fuel.

iii) Noise from the D.G. Set and other source(s) should be controlled by providing an acoustic enclosure as is required for meeting the ambient noise standards for night and day time as prescribed for respective areas/zones (Industrial, Commercial, Residential, Silence) which are as follows :-

Day time : from 6.00 a.m. to 10.00 p.m., Night time: from 10.00 p.m. to 6.00 a.m.

| Standards for Noise level in db(A) Leq | Industrial Area | Commercial Area | Residential Area | Silence Zone |
|--|-----------------|-----------------|------------------|--------------|
|--|-----------------|-----------------|------------------|--------------|

| | Day Time | Night Time | Day Time | Night Time | Day Time | Night Time | Day Time | Night Time |
|--|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|
| | 75 | 70 | 65 | 55 | 55 | 45 | 50 | 40 |

4. Essential documents to be submitted by the Industry/Unit as Applicable :-

- (i) Environment Statement in Form-V of Environment (Protection) Rules, 1986.
 - (ii) Quarterly compliance report of the CCA, photograph of ETP/APCs/Waste Storage Area.
5. Competent Authority reserves the right to change/modify/add any time any condition of this CCA.
6. Unit has to comply with the following specific & general conditions. Non compliance of any provision of this CCA and provisions of the Water Act, Air Act and Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 will result in legal action under the aforesaid Acts and Rules.
7. In compliance to the G.O 1011/81-7-2021-09 (Writ)/2016 dated.13.10.2021 issued by Department of Environment, Forest and Climate Change, Uttar Pradesh. You are directed to develop Miyawaki Forest as per the SOP available at URL:-<http://www.upecp.in/TrainingSession.aspx> for ensuring timely compliance of this direction, you are hereby directed to submit a bank guarantee with minimum validity of one year of the amount equivalent to the sum of initial consent fees (Air and Water) or Rs. 50,000/- (Rs. Fifty Thousand Only) whichever is more, within 30 days from the date of issuance of this certificate. In case of non-compliance of this direction, your consent will be revoked by the Board.
8. If the unit uses the ground water and requires the permission from SGWA/CGWA for water abstraction then the industry will have to obtain No objection certificate for abstraction of ground water. It will be the responsibility of the industry to comply with the various conditions of the NOC obtained from the competent authority and submit to the Board, within 3 months time failing which CTO will be revoked.

General Conditions:-

1. The applicant shall get analysed the samples of effluent/emission/hazardous wastes at least once in a three month from the laboratory recognized by the MoEF and shall report to the UPPCB.
2. The applicant shall however, not without the prior consent of the Board bring into use any new or altered outlet for the discharge of effluent or gases emission or sewage waste from the unit.
3. Treated Industrial waste water and domestic waste water shall be disposed jointly at one disposal point. The applicant shall provide discharge measurement equipment at final disposal point.
4. The applicant shall strictly comply with conditions of this CCA and submit compliance report of stipulated conditions within 30 days of receipt of this CCA. If at any point of time, it is found that the industry is not complying with stipulated conditions or any further direction/instruction issued by the Board, legal action shall be initiated against the applicant.
5. The applicant shall maintain good house keeping. All valves/pipes/sewer/drains etc. must be leak-proof
6. The industry shall provide uninterrupted entry to the STP/ETP inlet and outlet points, Air Pollution Control equipment and stack for smooth sampling/monitoring of efficiency of pollution control systems.
7. The industry shall provide Inspection Book at the time of inspection to the Board's officials.
8. Whenever due to any accident or other unforeseen act or event, such emission occurs or is apprehended to occur in excess of standards laid down, such information shall be reported to the Board's offices and all other concerned offices. In case of failure of pollution control equipment, the production process connected to it shall be stopped with immediate effect.
9. The industry shall operate in a manner so that all emissions be emitted through designated chimney/stack only.
10. In case of any damage to the agriculture productivity, human habitation etc. by the operation of industry, it shall be imperative to stop production in the industry with immediate effect and such information shall be reported to Board's offices. The industry shall be liable to pay compensation also in such cases as decided by the Competent Authority.

11. The applicant shall apply before the 60 days of expiry of CCA or any change in production types/ production capacity/manufacturing process/capacity enhancement etc. or any change in effluent discharge point or emission point

12. The Board reserves the right to revoke/add/modify any stipulated condition issued along with CCA, as may be necessary.

Specific Conditions:-

1- This CTO is valid only for the production capacity of RS/ENA/AA - 65.3 KLD and CO-GEN POWER- 2.0 MW.

2- The industry shall submit the NOC from the UPGWD to its sister unit M/s IPL, Sugar Unit (from which water is supplied) within a month, failing which consent shall be revoked without any further notice.

3- As per the directions given by Commission for Air Quality Management in National Capital Region and Adjoining Areas vide its letter no-A-110018/01/2021-CAQM, dated-04.02.2022, industry shall under all circumstances completely switch over to PNG or Bio Fuels latest by 30.09.2022. Industry should switch over to PNG Fuel as soon as PNG supply is available in the area. Unit must use Rice Husk/Biomass/Agriculture Refuse/Bio Fuel Pellets/Bio Briquettes as per direction given by CAQM in point no. 65.

4- This consent is valid only for Zero Liquid Discharge (ZLD).

5- In case of any change in production capacity, process, raw material use etc. the industry will have to intimate the Board. For any enhancement of the above, fresh Consent to Establish has to be obtained from U.P. Pollution Control Board.

6- The unit shall maintain strict supervision upon fluctuations in operating parameters with respect to each treatment unit of the Effluent treatment plant.

7- The E.T.P. unit operation line up Strengthening is to be maintained.

8- Unit must installed STP for treatment of domestic effluent and submit compliance in the Board within a Month.

9- The Unit shall install Piezometer for measurement of ground water level and the data generated from Piezometer will be provided to the SPCB on monthly basis.

10- Bio Composting shall not be done in the industry. The spent wash generated from the industry shall be used completely in MEE with High Bricks Concentration System (HBCS) and in Slop Fired Boiler. No effluent is allowed to discharge outside the factory premises.

11- All generate thin Slope shall be used in MEE with High Bricks Concentration System (HBCS) and Slop Fired Boiler.

12- Industry shall submit monitoring reports of all stacks and ambient air quality from a certified / approved laboratory under E.P. Act 1986 within a month and on quarterly basis.

13- Flow meter to be installed in all water abstraction points and usage of fresh water to be minimized.

- 14- The industry shall strictly comply with conditions mentioned in the charter on CREP prepared by CPCB.
- 15- Industry shall maintain Online Continuous Effluent and emission Monitoring System (OCEMS) on ETP and stack & connect it with SPCBs and CPCB server, before start of production as per the direction of CPCB.
- 16- Industry shall install PTZ camera at each strategic location such as MEE, effluent storage lagoon etc. for monitoring purpose. The URLs and password shall be provided to the Board.
- 17- Industry shall ensure the compliance of office memorandum dated 28.08.2019 issued by MoEF&CC, Govt. of India and detail of Fly ash disposal shall be submitted on quarterly basis to UPPCB.
- 18- The unit shall submit the audited balance sheet for the current year and the details of fees deposited during last three years within a month.
- 19- The industry shall install electromagnetic flow meter at water source and outlet of ETP, and maintain the records of water abstracted and recycled treated effluent. The treated effluent from the Effluent Treatment Plant shall be used completely in the manufacturing process.
- 20- Industry shall abide by orders / directions issued by Hon'ble Supreme court Hon'ble High Court, Hon'ble National Green tribunal, Central Pollution Control Board and U.P Pollution Control Board for protection and safe guard of environment from time to time.
- 21- Industry shall comply with various provisions of Air (Prevention and Control of Pollution) Act 1981 as amended, Water (Prevention and Control of Pollution) Act 1974 as amended and all other applicable rules notified under E.P. Act 1986.
- 22- The industry shall comply the provisions of Hazardous and Other Waste (Management and Transboundary Movement) Rules 2016 and shall obtain authorization for the disposal of hazardous waste.
- 23- The industry shall ensure provisions of Roof Top Rain Water Harvesting system and Ground Water Recharging Proposal/ compliance report should be sent to the Board within One month.
- 24- The industry shall provide adequate arrangement for fighting the accidental leakages/discharge of any air pollutant/gas/liquid from the vessel, machinery etc. which are likely to cause fire hazard including environmental pollution.
- 25- If UPPCB or CPCB issues closure order against the industry, this consent shall remain suspended for the period till closure order is revoked, after which the consent will be effective again for the remaining period.
- 26- The storage capacity of the lagoons installed for more than 7 days holding capacity of the concentrated spent wash shall be dismantled within one months and progress submitted to the Board.
- 27- Any source of emission other than that mentioned in the consent seeking application will not be permitted by the Board.
- 28- The industry should ensure the operation of the air pollution control system (APCS) in such a manner

that the air emission confirms with the standards prescribed under the E.P Act 1986 as amended.

29- Industry shall submit Environmental Statement in prescribed format as per rule no.14 as per E.P Rules 1986.

30- The APCS will be maintained and operated in such a manner that emissions always conform to the standard laid down under the E.P Act 1986 as amended.

31- Industry shall submit monthly monitoring reports of all stacks and ambient air quality from a certified / approved laboratory under E.P. Act 1986.

32- The unit shall obtain prior consents in the event of any addition of new emission generation sources such as- Boiler/ Furnace/ Heaters/ D.G. Sets or alteration of existing emission sources in accordance with section- 21/22 of air Act 1981 (as amended respectively).

33- The Industry will use minimum 20% Bio Briquette as fuel in the Boiler depending upon its availability.

34- In compliance with the Hon'ble Supreme Court order passed in W.P. (civil) No. 13029/1985 M.C. Mehta Vs. Union of India and ors. the use of Pet coke and furnace oil is prohibited.

35- The use of Pet coke and Furnace oil as a fuel in the factory is restricted in compliance of the Hon'ble Supreme court order.

36- Proper dust control measures shall be taken during construction and provisions of Construction and Demolition Waste Management Rules 2016 shall be effectively implemented and submit report to Board.

37- Fermented solid waste-35 MTD will be utilized to mixed with Boiler Ash-2.0 MTD to make manure and shall be distribute to nearby farmers.

38- Minimum 33% of the land on which industry is established will be covered by the plantation of tall trees of suitable species as per the guidelines set up by the Board vide its Office Order no.H16405/220/2018/02 dt. 16/02/2018. The copy of this guideline is available at URL http://www.uppcb.com/pdf/Green-Belt-Guidle_160218.pdf and industry shall establish Miyawaki forest inside the factory in sufficient area.

Chief Environmental Officer (Circle 3)

Copy to:

Regional Officer, U.P. Pollution Control Board, MuzaffarNagar to ensure the compliance of the conditions imposed in the certificate.

Chief Environmental Officer (Circle 3)

State Level Environment Impact Assessment Authority, Uttar Pradesh

Directorate of Environment, U.P.

Vineet Khand-1, Gomti Nagar, Lucknow - 226 010

Phone : 91-522-2300 541, Fax : 91-522-2300 543

E-mail : doeuplko@yahoo.com

Website : www.seiaaup.com

To,

M/s Indian Potash Ltd, (Distillery- Unit),
Rohana Kalan, P.O. Rohana Mill,
Block Charthawal, Tehsil- Muzaffarnagar,
District- Muzaffarnagar, U.P.

Ref. No.....395...../Parya/SEAC/5764-5646/2019

Date: 14 October, 2020

Sub: Environmental Clearance for Expansion of existing molasses based distillery from 45 KLD to 65.3 KLD (RS/ENA/AA) along with power plant from 1.4 MW to 2.0 MW at Khasra No.-634, 634 M, 633, 631, 627, 626, 624 partly, 622, Village-Rohana Mill, Block: Charthawal, Tehsil & District: Muzaffarnagar (U.P.) by M/s Indian Potash Ltd.

Dear Sir,

Please refer to your application/letters 09-04-2020, 02-06-2020, 09-08-2020, 13-08-2020 & 17-08-2020 addressed to the Chairman/Secretary, State Level Environment Impact Assessment Authority (SEIAA) and Director, Directorate of Environment Govt. of UP on the subject as above. The State Level Expert Appraisal Committee considered the matter in its meetings held on dated 28-08-2020 and SEIAA in its meeting dated 17-09-2020.

A presentation was made by project proponent along with their consultant M/s Environmental & Technical Research Centre. The proponent, through the documents submitted and the presentation made, informed the committee that:-

1. The Environmental clearance is sought for Expansion of existing molasses based distillery from 45 KLD to 65.3 KLD (RS/ENA/AA) along with power plant from 1.4 MW to 2.0 MW at Khasra No.-634, 634 M, 633, 631, 627, 626, 624 partly, 622, Village-Rohana Mill, Block: Charthawal, Tehsil & District: Muzaffarnagar (U.P.) by M/s Indian Potash Ltd.
2. The additional terms of reference in the matter were issued by SEIAA, U.P. vide letter no. 208/Parya/SEAC/5646/2018, dated 27/07/2020
3. Final EIA report submitted by the project proponent on 13th August, 2020.
4. Salient features of the project:

| Sr. No. | Item | Details |
|---------|------------------------|---|
| 1 | Name of the Project | M/s Indian Potash Ltd. (Rohana Unit: Distillery) Village: Rohana Mill, Block: Charthawal, Tehsil & District: Muzaffarnagar (U.P.) |
| 2 | Capacity of Distillery | Expansion from 45 KLD to 65.3 KLD (Rectified Spirit/Extra Neutral Alcohol/Ethanol) |
| 3 | Power Generation | From 1.4 MW to 2.0 MW Co- Generation of Power. |
| 4 | Category | Category "B" and Schedule - 5 (g) |

5. Other project details:

| S.No | Particulars | Details of Proposed Project (Capacity: 65.3 KLD) |
|------|----------------------------|---|
| 1 | Proposed capacity of Plant | Expansion of the existing project from 45 KLD to 65.3 KLD distillery (RS/ENA/AA) along with Co gen Power from 1.4 MW to 2 MW. |
| 2 | Total project cost | Rs.11300 Lakhs |
| 3 | Total project area | 6.988 Hectares (17.267 Acres)(Adjoining existing Sugar Mill) at Khasra no. 634, 634 M, 633, 631, 627, 626, 624 partly, 622M Partly Village: Rohana Mill, Block: Charthawal, Tehsil & District: Muzaffarnagar (U.P.) |
| 4 | Category of Project | Category : B and Schedule : 5 (g) |
| 5 | Process Involve | Distillery Process : |



| | | |
|----|---|--|
| | | 1. Molasses Dilution 2. Yeast Propagation 3. Fermentation 4. Multi Pressure Distillation |
| 6 | Product | RS/ ENA / Ethanol (AA) : 65.3 KLD |
| 7 | Raw material and its Quantity | Molasses) & Sugarcane Syrup 284 MT/DAY of C-Molasses or 200 MT/Day of B-Heavy Molasses or 218 MT/Day of 50% Sugar Syrup Source: Adjacent own sugar unit & other standalone unit in nearby areas. |
| 8 | Co-Gen Power Generation | 2.0 MW Co generation power |
| 9 | Fresh Water Requirement | Fresh Water Requirement : 445 KLD (Industrial Use) Source: Treated and Condensate water from adjacent sugar industry as well as surface water through canal. |
| 10 | Power requirement | The total power requirement for the project will be 1.8 MW. Source: Proposed 2.0 MW Co – Generation Power Plant. |
| 11 | Fuel and its quantity | Slop will be incinerated in boiler along with coal/husk as supporting fuel. Slop: 166 TPD Coal Requirement : 60 TPD (or Husk:70 TPD) |
| 12 | Steam requirement | 17 TPH |
| 13 | Number of boiler | 1 no. Boiler: 22 TPH Technology : (Slop Fired incineration Boiler) |
| 14 | Air Pollution Control Device | ESP |
| 15 | Number of Stack | Proposed One Stack: 70 Meters |
| 16 | Waste Water treatment | Spent wash treatment:326 KLD It will be concentrated in Multi effect evaporation and then concentrate from MEE will be utilized in Incineration fired boiler as a fuel along with Coal/ Husk. Other effluent treatment:507 KLD MEE condensate, Blowdowns of CT, Boiler, Floor washing etc will be treated in CPU and treated water will be recycled back to process and cooling in Distillation & CT. |
| 17 | Waste Water Discharge | Unit is based Zero Liquid discharge Industry (ZLD) |
| 18 | Solid Waste Generation | Total Ash generated : 35 TPD Fermenter sludge: 2 TPD Disposal: Total Ash and Fermenter Sludge will be used as manure. |
| 19 | No of Working Days | 350 Days / Annum. |
| 20 | Employment Generation | 80 Number |
| 21 | Green Belt Development | 33% of the project area will be covered under green belt plantation (2.306 Hectare) |
| 22 | Cost towards Environmental Protection measures (capital cost) | 40 Crores (it include Waste water treatment system, Boiler, MEE, APCS, Green Belt, Health Safety equipment, granules formation machinery etc) |
| 23 | Recurring cost towards Environmental control measures | 1 Crore per year. |
| 24 | CSR expenses | 2% of total annual Profit as per the CSR Act (By Ministry of corporate affairs) Notification GSR 129 (E). |
| 25 | Corporate Environmental Responsibility (CER) | 169.5 lakhs (1.5% of project cost) |

6. Land Use Details:

| Sr No. | Land use | Area (sqm) | Area in % |
|--------|-----------------|------------|-----------|
| 1 | Green Belt Area | 23,060.0 | 33.00 |



E.C. for Expansion of existing molasses based distillery from 45 KLD (RS/ENA/AA) along with power plant from 1.4 MW to 2.0 MW at Khasra No.-634, 634 M, 633, 631, 627, 626, 624 partly, 622, Village-Rohana Mill, Block: Charthawal, Tehsil & District: Muzaffarnagar (U.P.) by M/s Indian Potash Ltd.

| | | | |
|---|--|----------|-------|
| 2 | Open Land | 23396.3 | 33.48 |
| 3 | Road/ Paved Area | 4330.0 | 6.20 |
| 4 | Covered /Rooftop area of building/ sheds | 19093.7 | 27.32 |
| | GRAND TOTAL | 69,880.0 | 100 |

7. Raw material required with daily consumption and transport:

| Sl. No | Particular | Requirement | Storage | Source and mode of transportation |
|-----------------|--|---|---|-----------------------------------|
| 1. | Molasses (All variants like B-Heavy, Final C-Molasses) & Sugarcane Syrup | C-Molasses: 284 MT/Day or B-Heavy Molasses :200 MT/Day or 218 MT/Day of 50% Sugar Syrup | Molasses storage tanks | Through Sugar Mills via Road |
| Other Chemicals | | | | |
| 2. | Sulphuric Acid | 435 Kg/day | Storage facility will be available for the chemical within proposed distillery premises as per requirement. | Nearby markets/ by roads |
| 3. | Sodium hydroxide (caustic) | 870 kg/ day | | |
| 4. | Nutrients | 205 kg/day | | |
| 5. | Enzymes | 35.7 kg/Day | | |
| 6. | Anti-foam agents | 58.0 kg/Day | | |

8. Plant and machinery:

- 1) 65.3 KLD Ethanol plant with integrated evaporator and alcohol storage system, MEE
- 2) 22 TPH concentrated spent wash (slop) fired incineration boiler including air pollution control system (ESP)
- 3) Ash handling system,
- 4) Fuel handling system
- 5) Turbo generator & condenser with arrangement for the export of surplus power
- 6) Power distribution system
- 7) Cooling towers
- 8) Plant piping, valves etc
- 9) Pumps with drive motors
- 10) Condensate Polishing unit
- 11) Distributed control system
- 12) Fire fighting system etc.
- 13) Molasses storage tanks
- 14) Product storage tanks
- 15) Weighbridges
- 16) RCC Chimney

9. Water requirement details:

| | | |
|---|---|----------------------------------|
| 1 | Industry Use | 445 KLD(@ 6.8 KL/ KL of product) |
| 2 | Domestic Use | 20 KLD |
| 3 | Total Water Requirement | 465 KLD |
| | Source: Treated and Condensate water from adjacent sugar industry as well as surface water through canal. | |

10. Waste water generation:

| | | |
|---|------------------------|---|
| 1 | Waste Water Generation | Spent Wash: 326 KLD (@ 5 KL/KL of Product) Other Effluents: 507 KLD |
| 2 | Treatment Technology | Spent wash treatment: It will be concentrated in Multi effect evaporation and then concentrate from MEE will be utilized in Incineration fired boiler as a fuel along with Coal/ Husk. Other effluent treatment: MEE condensate, Blow downs of CT, Boiler, Floor washing etc. will be treated in CPU and treated water will be recycled back to process and cooling in |



Distillation & CT.

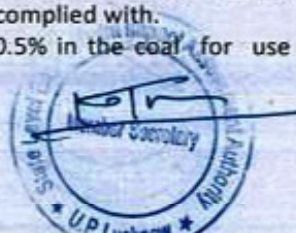
11. The project proposal falls under Category "B" and Schedule - 5 (g) of EIA Notification, 2006 (as amended). Based on the recommendations of the State Level Expert Appraisal Committee Meeting (SEAC) held on 28-08-2020 the State Level Environment Impact Assessment Authority (SEIAA) in its Meeting held 17-09-2020 and decided to grant the Environmental Clearance for proposed project along with subject to the effective implementation of the following conditions:-

I. Statutory compliance:

1. 45 days monitoring report of the area for air quality, water quality, Noise level. Besides flora & fauna should be examined twice a week and be submitted within 60 days for a record.
2. Due to unavoidable circumstance and covid-19 pandemic, the authority are unable to visit the site therefore, it is not possible to make available the latest certified compliance report. In view of this the committee decided that the certified compliance report should be submitted within 03 months.
3. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
4. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
5. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six - monthly compliance report. (in case of the presence of schedule-I species in the study area).
6. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
7. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.
8. The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989

II. Air quality monitoring and preservation:

1. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
2. The project proponent shall install system carryout to Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions. (case to case basis small plants: Manual; Large plants: Continuous).
3. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six- monthly monitoring report.
4. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
5. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be complied with.
6. Sulphur content should not exceed 0.5% in the coal for use in coal fired boilers to control



particulate emissions within permissible limits (as applicable). The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.

7. The DG sets shall be equipped with suitable pollution control devices and the adequate stack height so that the emissions are in conformity with the extant regulations and the guidelines in this regard.
8. Storage of raw materials, coal etc shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

III. Water quality monitoring and preservation:

1. 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 (applicable in case of the projects achieving ZLD) and connected to SPCB and CPCB online servers.
2. Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises (applicable in case of the projects achieving the ZLD).
3. Process effluent /any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.
4. The effluent discharge shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting Consent under the Air/Water Act, whichever is more stringent.
5. Total fresh water requirement shall not exceed the proposed quantity or as specified by the Committee. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.
6. Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system.
7. The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations within the plant.

IV. Noise monitoring and prevention:

1. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
2. 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.
3. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures:

1. The energy sources for lighting purposes shall preferably be LED based.

VI. Waste management:

1. Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.
2. Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
3. The company shall undertake waste minimization measures as below :-
 - i. Metering and control of quantities of active ingredients to minimize waste.
 - ii. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - iii. Use of automated filling to minimize spillage.
 - iv. Use of Close Feed system into batch reactors.
 - v. Venting equipment through vapour recovery system.
 - vi. Use of high pressure hoses for equipment clearing to reduce wastewater generation

VII. Green Belt:

1. Green belt shall be developed in an area equal to 33% of the plant area with a native tree



species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.

VIII. Safety, Public hearing and Human health issues:

1. Emergency preparedness plan based on the Hazard Identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
2. The PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
3. 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.
4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
5. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
6. There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places

IX. Corporate Environment Responsibility:

1. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for 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. The company shall have defined system of reporting infringements / deviation/ violation of the environmental/ forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
3. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
5. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

X. Miscellaneous:

1. If the proposed project is situated in notified area of ground water extraction, where creation of new wells for ground water extraction is not allowed, requirement of fresh water shall be met from alternate water sources other than ground water or legally valid source and permission from the competent authority shall be obtained to use it.
2. The project proponent shall ensure that the distillery shall be on ZLD basis with incineration of spent wash in slop boiler. As proposed treated waste water should be completely recycled /reused and ZLD should be achieved. Under no circumstances treated waste water and effluent shall be discharged to any drain/sewer line/ inland surface water/Nala etc.
3. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
4. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's



website permanently.

5. 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.
6. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
7. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
8. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
9. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
10. The project proponent 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, commencing the land development work and start of production operation by the project.
11. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
12. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
13. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
14. 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.
15. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
16. The Ministry reserves the right to stipulate additional conditions if found necessary.
17. The Company in a time bound manner shall implement these conditions.
18. 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.
19. 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.
20. 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.

Concealing factual data and information or submission of false/fabricated data and failure to comply with any of the conditions stipulated in the Prior Environmental Clearance attract action under the provision of Environmental (Protection) Act, 1986.

This Environmental Clearance is subject to ownership of the site by the project proponents in confirmation with approved Master Plan for Muzaffarnagar. In case of violation; it would not be effective and would automatically be stand cancelled.

The project proponent has to ensure that the proposed site is not a part of any no- development zone as required/prescribed/identified under law. In case of the violation this permission shall automatically deemed to be cancelled. Also, in the event of any dispute on ownership or land use of the proposed site, this Clearance shall automatically deemed to be cancelled.

The project proponent has to mandatorily submit the compliance of specific conditions no- 1, 3, 4 & 5



given in E.C. letter within 3 months, failing which the Clearance shall automatically deemed to be cancelled.

Further project proponent has to submit the regular 6 monthly compliance report regarding general & specific conditions as specified in the E.C. letter and comply the provision of EIA notification 2006 (as Amended).

These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006 including the amendments and rules made thereafter.



(Ashish Tiwari)
Member Secretary, SEIAA

No..... /Parya/SEAC/5764-5646/2019 Dated: As above

Copy with enclosure for Information and necessary action to:

1. The Principal Secretary, Department of Environment, Govt. of Uttar Pradesh, Lucknow.
2. Advisor, IA Division, Ministry of Environment, Forests & Climate Change, Govt. of India, Indira Paryavaran Bhawan, Jor Bagh Road, Aliganj, New Delhi.
3. Additional Director, Regional Office, Ministry of Environment & Forests, (Central Region), Kendriya Bhawan, 5th Floor, Sector-H, Aliganj, Lucknow.
4. District Magistrate Muzaffarnagar.
5. The Member Secretary, U.P. Pollution Control Board, TC-12V, Paryavaran Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow.
6. Copy to Web Master/ guard file.

(Ashish Tiwari)
Member Secretary, SEIAA



ENVIRONMENTAL AND TECHNICAL RESEARCH CENTRE

Office & Laboratory: 2/261, Vishwas Khand, Gomti Nagar, Lucknow- 226 010 (U.P.)

Email : ETRCLTH@YAHOO.IN, Web: www.etrclth.com

ISO 9001:2015, ISO 14001 : 2015, OHSAS 18001 : 2007

An Approved Laboratory from Ministry of Environment, Forest and Climate change, Govt. of India under EPA 1986

ETRC/PM09/TEST-REP/FT/45

TEST REPORT WATER & WASTE WATER ANALYSIS

| | |
|---|--|
| Test Report Ref No.: ETRC/EPA/8378/2023 | Date of Report: 03/04/2023 |
| Name /Address/Type of Industry | M/s Indian Potash Limited Unit: Rohana Kalan (Distillery Division) P.O.: Rohana Mill, Block: Charthawal Tehsil: Muzzaffarnagar District: Muzaffarnagar (U.P.) - 251202 |

SAMPLE DETAILS

| | | | | | |
|---|----------------------|------------------------------|---|---------------------|---------------|
| 1 | Water/ Waste Water | Ground Water | 5 | Packing Condition | Sealed |
| 2 | Sample Description | Borewell (Near Project Site) | 6 | Sample Collected By | Industry Self |
| 3 | Sample received date | 01.04.2023 | 7 | Analysis Start Date | 01.04.2023 |
| 4 | Sample Quantity | 5.0 liters | 8 | Analysis End Date | 03.04.2023 |

TEST RESULT

| Sr. No | Test Parameter | Unit | Protocol/Test Method | Result | Range of testing /limit of detection | Indian Standard 10500: 2012 | |
|-----------------------------|---|-------|--|-----------|--------------------------------------|-----------------------------|---------------|
| | | | | | | Desirable | Permissible |
| Physico-chemical Parameters | | | | | | | |
| 1 | Colour | Hazen | IS: 3025 (Part-4): 1983 Reaffirmed: 2017 | <5.0 | 5 - 30 | 5 | 15 |
| 2 | Odour | - | IS: 3025 (Part-5): 1983 Reaffirmed: 2017 | Agreeable | Qualitative | Agreeable | Agreeable |
| 3 | pH | - | APHA 23 rd Ed. 2017-4500 H ⁺ | 7.5 | 1 - 14 | 6.5-8.5 | No Relaxation |
| 4 | Turbidity | NTU | APHA 23 rd Ed. 2017-2130 B | BDL | 2 - 40 | 1 | 5 |
| 5 | Total Dissolved Solids (TDS) | mg/l | IS: 3025 (Part-16): 1984 Reaffirmed: 2017 | 386.4 | 10 - 5000 | 500 | 2000 |
| 6 | Ammonia (as total ammonia-N) | mg/l | APHA 23 rd Ed. 2017-4500-NH ₃ F | BDL | 0.5 - 2 | 0.5 | No Relaxation |
| 7 | Anionic Detergents (as MBAS) | mg/l | APHA 23 rd Ed. 2017-5540 C | BDL | 0.05 - 0.5 | 0.2 | 1.0 |
| 8 | Calcium as Ca | mg/l | IS: 3025 (Part-40): 1991 Reaffirmed: 2019 | 52.8 | 2.0 - 600 | 75 | 200 |
| 9 | Magnesium as Mg | mg/l | APHA 23 rd Ed. 2017-3500 Mg, B | 30.13 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl ⁻ B | 30.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F ⁻ C | 0.35 | 0.02 - 5.0 | 1.0 | 1.5 |
| 12 | Free Residual Chlorine | mg/l | IS: 3025 (Part-26): 1986 Reaffirmed: 2019 | BDL | 0.1 - 5.0 | 0.2 | 1.0 |
| 13 | Nitrate as NO ₃ | mg/l | IS: 3025 (Part-34): 1986 Reaffirmed: 2019 | BDL | 1.0 - 70 | 45 | No Relaxation |
| 14 | Phenolic Compound (as C ₆ H ₅ OH) | mg/l | APHA 23 rd Ed. 2017-5530 C | BDL | 0.001 - 0.005 | 0.001 | 0.002 |
| 15 | Sulphate as SO ₄ | mg/l | APHA 23 rd Ed. 2017-4500- SO ₄ ²⁻ | 26.0 | 1.0 - 500 | 200 | 400 |
| 16 | Alkalinity as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2320 B | 280.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 256.0 | 5.0 - 800 | 200 | 600 |
| 18 | Aluminium as Al | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.015 - 5.0 | 0.03 | 0.2 |
| 19 | Boron as B | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 2.0 | 0.5 | 1.0 |
| 20 | Copper as Cu | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.03 - 10 | 0.05 | 1.5 |



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ISO 9001:2015, ISO 45001:2018 (OH&S) ISO 14001:2015

Test Report Ref No.: ETRC/EPA/8378/2023

| | | | | | | | |
|----------------------------|-----------------|------------|---|--------|---|---|---------------|
| 21 | Iron as Fe | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.11 | 0.05 - 20 | 0.3 | No Relaxation |
| 22 | Manganese as Mn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.05 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.36 | 0.05 - 15 | 5 | 15 |
| 24 | Cadmium as Cd | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 2.0 | 0.003 | No Relaxation |
| 25 | Lead as Pb | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.01 - 10 | 0.01 | No Relaxation |
| 26 | Mercury as Hg | µg/l | APHA 23 rd Ed. 2017-3112 B | BDL | 0.5 - 1000 | 1.0 | No Relaxation |
| 27 | Nickel as Ni | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 5.0 | 0.02 | No Relaxation |
| 28 | Arsenic as As | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.02 - 2.0 | 0.01 | 0.05 |
| 29 | Total Chromium | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.03 - 5.0 | 0.05 | No Relaxation |
| Microbiological Parameters | | | | | | | |
| 30 | E. coli | MPN/100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |
| 31 | T. coli | MPN/100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |


BDL=Below Detection Limit

..... END OF REPORT.....

- ETRC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices and that this data reflects our best attempt to generate accurate results for the sample, mentioned in the report as above.
- The result relate only to the items tested.
- ETRC does not assume any liability for any claims or damages related to the quality of parameter analyzed in the results and/or the performance of the equipment constituting to the results.
- All disputes subject to Lucknow jurisdiction.
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Authorized Signatory
(Sandeep Kr Verma)
Lab-Incharge




Authorized Signatory
(Ritu Garg)
QM



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An Approved Laboratory from Ministry of Environment, Forest and Climate change, Govt. of India under EPA 1986

ETRC/PM09/TEST-REP/FT/45

TEST REPORT WATER & WASTE WATER ANALYSIS

| | |
|---|---|
| Test Report Ref No.: ETRC/EPA/8790/2023 | Date of Report: 27/05/2023 |
| Name /Address/Type of Industry | M/s Indian Potash Limited Unit: Rohana Kalan (Distillery Division) P.O.: Rohana Mill, Block: Charthawal Tehsil: Muzaffarnagar District: Muzaffarnagar (U.P.) - 251202 |

SAMPLE DETAILS

| | | | | | |
|---|----------------------|------------------------------|---|---------------------|---------------|
| 1 | Water/ Waste Water | Ground Water | 5 | Packing Condition | Sealed |
| 2 | Sample Description | Borewell (Near Project Site) | 6 | Sample Collected By | Industry Self |
| 3 | Sample received date | 23.05.2023 | 7 | Analysis Start Date | 23.05.2023 |
| 4 | Sample Quantity | 5.0 liters | 8 | Analysis End Date | 26.05.2023 |

TEST RESULT

| Sr. No | Test Parameter | Unit | Protocol/Test Method | Result | Range of testing /limit of detection | Indian Standard 10500: 2012 | |
|-----------------------------|---|-------|--|-----------|--------------------------------------|-----------------------------|---------------|
| | | | | | | Desirable | Permissible |
| Physico-chemical Parameters | | | | | | | |
| 1 | Colour | Hazen | IS: 3025 (Part-4): 1983 Reaffirmed: 2017 | <5.0 | 5 - 30 | 5 | 15 |
| 2 | Odour | - | IS: 3025 (Part-5): 1983 Reaffirmed: 2017 | Agreeable | Qualitative | Agreeable | Agreeable |
| 3 | pH | - | APHA 23 rd Ed. 2017-4500 H ⁺ | 7.3 | 1 - 14 | 6.5-8.5 | No Relaxation |
| 4 | Turbidity | NTU | APHA 23 rd Ed. 2017-2130 B | BDL | 2 - 40 | 1 | 5 |
| 5 | Total Dissolved Solids (TDS) | mg/l | IS: 3025 (Part-16): 1984 Reaffirmed: 2017 | 402.6 | 10 - 5000 | 500 | 2000 |
| 6 | Ammonia (as total ammonia-N) | mg/l | APHA 23 rd Ed. 2017-4500-NH ₃ F | BDL | 0.5 - 2 | 0.5 | No Relaxation |
| 7 | Anionic Detergents (as MBAS) | mg/l | APHA 23 rd Ed. 2017-5540 C | BDL | 0.05 - 0.5 | 0.2 | 1.0 |
| 8 | Calcium as Ca | mg/l | IS: 3025 (Part-40): 1991 Reaffirmed: 2019 | 52.8 | 2.0 - 600 | 75 | 200 |
| 9 | Magnesium as Mg | mg/l | APHA 23 rd Ed. 2017-3500 Mg, B | 28.18 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl ⁻ B | 26.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F ⁻ C | 0.36 | 0.02 - 5.0 | 1.0 | 1.5 |
| 12 | Free Residual Chlorine | mg/l | IS: 3025 (Part-26): 1986 Reaffirmed: 2019 | BDL | 0.1 - 5.0 | 0.2 | 1.0 |
| 13 | Nitrate as NO ₃ | mg/l | IS: 3025 (Part-34): 1986 Reaffirmed: 2019 | BDL | 1.0 - 70 | 45 | No Relaxation |
| 14 | Phenolic Compound (as C ₆ H ₅ OH) | mg/l | APHA 23 rd Ed. 2017-5530 C | BDL | 0.001 - 0.005 | 0.001 | 0.002 |
| 15 | Sulphate as SO ₄ | mg/l | APHA 23 rd Ed. 2017-4500- SO ₄ ²⁻ | 28.0 | 1.0 - 500 | 200 | 400 |
| 16 | Alkalinity as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2320 B | 288.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 248.0 | 5.0 - 800 | 200 | 600 |
| 18 | Aluminium as Al | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.015 - 5.0 | 0.03 | 0.2 |
| 19 | Boron as B | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 2.0 | 0.5 | 1.0 |
| 20 | Copper as Cu | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.03 - 10 | 0.05 | 1.5 |



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Test Report Ref No.: ETRC/EPA/8790/2023

| | | | | | | | |
|-----------------------------------|-----------------|------------|---|--------|---|---|---------------|
| 21 | Iron as Fe | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.15 | 0.05 - 20 | 0.3 | No Relaxation |
| 22 | Manganese as Mn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.04 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.58 | 0.05 - 15 | 5 | 15 |
| 24 | Cadmium as Cd | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 2.0 | 0.003 | No Relaxation |
| 25 | Lead as Pb | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.01 - 10 | 0.01 | No Relaxation |
| 26 | Mercury as Hg | µg/l | APHA 23 rd Ed. 2017-3112 B | BDL | 0.5 - 1000 | 1.0 | No Relaxation |
| 27 | Nickel as Ni | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 5.0 | 0.02 | No Relaxation |
| 28 | Arsenic as As | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.02 - 2.0 | 0.01 | 0.05 |
| 29 | Total Chromium | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.03 - 5.0 | 0.05 | No Relaxation |
| Microbiological Parameters | | | | | | | |
| 30 | E. coli | MPN/100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |
| 31 | T. coli | MPN/100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |


BDL=Below Detection Limit

..... END OF REPORT.....

- ETRC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices and that this data reflects our best attempt to generate accurate results for the sample, mentioned in the report as above.
- The result relate only to the items tested.
- ETRC does not assume any liability for any claims or damages related to the quality of parameter analyzed in the results and/or the performance of the equipment constituting to the results.
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Authorized Signatory
(Sandeep Kr Verma)
Lab-Incharge




Authorized Signatory
(Ritu Garg)
QM



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ETRC/PM09/TEST-REP/FT/45

TEST REPORT WATER & WASTE WATER ANALYSIS

| | |
|---|--|
| Test Report Ref No.: ETRC/2006/11970/2023 | Date of Report: 20/06/2023 |
| Name /Address/Type of Industry | M/s Indian Potash Limited Unit: Rohana Kalan (Distillery Division) P.O.: Rohana Mill, Block: Charthawal Tehsil: Muzzaffarnagar District: Muzaffarnagar (U.P.) - 251202 |

SAMPLE DETAILS

| | | | | | |
|---|----------------------|------------------------------|---|---------------------|---------------|
| 1 | Water/ Waste Water | Ground Water | 5 | Packing Condition | Sealed |
| 2 | Sample Description | Borewell (Near Project Site) | 6 | Sample Collected By | Industry Self |
| 3 | Sample received date | 15.06.2023 | 7 | Analysis Start Date | 15.06.2023 |
| 4 | Sample Quantity | 5.0 liters | 8 | Analysis End Date | 19.06.2023 |

TEST RESULT

| Sr. No | Test Parameter | Unit | Protocol/Test Method | Result | Range of testing /limit of detection | Indian Standard 10500: 2012 | |
|-----------------------------|---|-------|--|-----------|--------------------------------------|-----------------------------|---------------|
| | | | | | | Desirable | Permissible |
| Physico-chemical Parameters | | | | | | | |
| 1 | Colour | Hazen | IS: 3025 (Part-4): 1983 Reaffirmed: 2017 | <5.0 | 5 - 30 | 5 | 15 |
| 2 | Odour | - | IS: 3025 (Part-5): 1983 Reaffirmed: 2017 | Agreeable | Qualitative | Agreeable | Agreeable |
| 3 | pH | - | APHA 23 rd Ed. 2017-4500 H ⁺ | 7.4 | 1 - 14 | 6.5-8.5 | No Relaxation |
| 4 | Turbidity | NTU | APHA 23 rd Ed. 2017-2130 B | BDL | 2 - 40 | 1 | 5 |
| 5 | Total Dissolved Solids (TDS) | mg/l | IS: 3025 (Part-16): 1984 Reaffirmed: 2017 | 398.4 | 10 - 5000 | 500 | 2000 |
| 6 | Ammonia (as total ammonia-N) | mg/l | APHA 23 rd Ed. 2017-4500-NH ₃ F | BDL | 0.5 - 2 | 0.5 | No Relaxation |
| 7 | Anionic Detergents (as MBAS) | mg/l | APHA 23 rd Ed. 2017-5540 C | BDL | 0.05 - 0.5 | 0.2 | 1.0 |
| 8 | Calcium as Ca | mg/l | IS: 3025 (Part-40): 1991 Reaffirmed: 2019 | 57.6 | 2.0 - 600 | 75 | 200 |
| 9 | Magnesium as Mg | mg/l | APHA 23 rd Ed. 2017-3500 Mg, B | 30.13 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl ⁻ B | 28.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F ⁻ C | 0.34 | 0.02 - 5.0 | 1.0 | 1.5 |
| 12 | Free Residual Chlorine | mg/l | IS: 3025 (Part-26): 1986 Reaffirmed: 2019 | BDL | 0.1 - 5.0 | 0.2 | 1.0 |
| 13 | Nitrate as NO ₃ | mg/l | IS: 3025 (Part-34): 1986 Reaffirmed: 2019 | BDL | 1.0 - 70 | 45 | No Relaxation |
| 14 | Phenolic Compound (as C ₆ H ₅ OH) | mg/l | APHA 23 rd Ed. 2017-5530 C | BDL | 0.001 - 0.005 | 0.001 | 0.002 |
| 15 | Sulphate as SO ₄ | mg/l | APHA 23 rd Ed. 2017-4500- SO ₄ ²⁻ | 26.0 | 1.0 - 500 | 200 | 400 |
| 16 | Alkalinity as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2320 B | 296.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 268.0 | 5.0 - 800 | 200 | 600 |
| 18 | Aluminium as Al | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.015 - 5.0 | 0.03 | 0.2 |
| 19 | Boron as B | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 2.0 | 0.5 | 1.0 |
| 20 | Copper as Cu | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.03 - 10 | 0.05 | 1.5 |



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Test Report Ref No.: ETRC/2006/11970/2023

| | | | | | | | |
|----------------------------|-----------------|------------|---|--------|---|---|---------------|
| 21 | Iron as Fe | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.10 | 0.05 - 20 | 0.3 | No Relaxation |
| 22 | Manganese as Mn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.03 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.42 | 0.05 - 15 | 5 | 15 |
| 24 | Cadmium as Cd | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 2.0 | 0.003 | No Relaxation |
| 25 | Lead as Pb | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.01 - 10 | 0.01 | No Relaxation |
| 26 | Mercury as Hg | µg/l | APHA 23 rd Ed. 2017-3112 B | BDL | 0.5 - 1000 | 1.0 | No Relaxation |
| 27 | Nickel as Ni | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 5.0 | 0.02 | No Relaxation |
| 28 | Arsenic as As | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.02 - 2.0 | 0.01 | 0.05 |
| 29 | Total Chromium | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.03 - 5.0 | 0.05 | No Relaxation |
| Microbiological Parameters | | | | | | | |
| 30 | E. coli | MPN/100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |
| 31 | T. coli | MPN/100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |


BDL=Below Detection Limit

..... END OF REPORT.....

- ETRC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices and that this data reflects our best attempt to generate accurate results for the sample, mentioned in the report as above.
- The result relate only to the items tested.
- ETRC does not assume any liability for any claims or damages related to the quality of parameter analyzed in the results and/or the performance of the equipment constituting to the results.
- All disputes subject to Lucknow jurisdiction.
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- Complain register is available in our laboratory. °


Authorized Signatory
(Sandeep Kr Verma)
Lab-Incharge




Authorized Signatory
(Ritu Garg)
QM



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ETRC/PM09/TEST-REP/FT/45

TEST REPORT WATER & WASTE WATER ANALYSIS

| | |
|---|--|
| Test Report Ref No.: ETRC/EPA/9080/2023 | Date of Report: 29/07/2023 |
| Name /Address/Type of Industry | M/s Indian Potash Limited Unit: Rohana Kalan (Distillery Division) P.O.: Rohana Mill, Block: Charthawal Tehsil: Muzzaffarnagar District: Muzaffarnagar (U.P.) - 251202 |

SAMPLE DETAILS

| | | | | | |
|---|----------------------|------------------------------|---|---------------------|---------------|
| 1 | Water/ Waste Water | Ground Water | 5 | Packing Condition | Sealed |
| 2 | Sample Description | Borewell (Near Project Site) | 6 | Sample Collected By | Industry Self |
| 3 | Sample received date | 26.07.2023 | 7 | Analysis Start Date | 26.07.2023 |
| 4 | Sample Quantity | 5.0 liters | 8 | Analysis End Date | 29.07.2023 |

TEST RESULT

| Sr. No | Test Parameter | Unit | Protocol/Test Method | Result | Range of testing /limit of detection | Indian Standard 10500: 2012 | |
|-----------------------------|---|-------|--|-----------|--------------------------------------|-----------------------------|---------------|
| | | | | | | Desirable | Permissible |
| Physico-chemical Parameters | | | | | | | |
| 1 | Colour | Hazen | IS: 3025 (Part-4): 1983 Reaffirmed: 2017 | <5.0 | 5 - 30 | 5 | 15 |
| 2 | Odour | - | IS: 3025 (Part-5): 1983 Reaffirmed: 2017 | Agreeable | Qualitative | Agreeable | Agreeable |
| 3 | pH | - | APHA 23 rd Ed. 2017-4500 H ⁺ | 7.5 | 1 - 14 | 6.5-8.5 | No Relaxation |
| 4 | Turbidity | NTU | APHA 23 rd Ed. 2017-2130 B | BDL | 2 - 40 | 1 | 5 |
| 5 | Total Dissolved Solids (TDS) | mg/l | IS: 3025 (Part-16): 1984 Reaffirmed: 2017 | 396.0 | 10 - 5000 | 500 | 2000 |
| 6 | Ammonia (as total ammonia-N) | mg/l | APHA 23 rd Ed. 2017-4500-NH ₃ F | BDL | 0.5 - 2 | 0.5 | No Relaxation |
| 7 | Anionic Detergents (as MBAS) | mg/l | APHA 23 rd Ed. 2017-5540 C | BDL | 0.05 - 0.5 | 0.2 | 1.0 |
| 8 | Calcium as Ca | mg/l | IS: 3025 (Part-40): 1991 Reaffirmed: 2019 | 54.4 | 2.0 - 600 | 75 | 200 |
| 9 | Magnesium as Mg | mg/l | APHA 23 rd Ed. 2017-3500 Mg, B | 29.16 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl ⁻ B | 30.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F ⁻ C | 0.36 | 0.02 - 5.0 | 1.0 | 1.5 |
| 12 | Free Residual Chlorine | mg/l | IS: 3025 (Part-26): 1986 Reaffirmed: 2019 | BDL | 0.1 - 5.0 | 0.2 | 1.0 |
| 13 | Nitrate as NO ₃ | mg/l | IS: 3025 (Part-34): 1986 Reaffirmed: 2019 | BDL | 1.0 - 70 | 45 | No Relaxation |
| 14 | Phenolic Compound (as C ₆ H ₅ OH) | mg/l | APHA 23 rd Ed. 2017-5530 C | BDL | 0.001 - 0.005 | 0.001 | 0.002 |
| 15 | Sulphate as SO ₄ | mg/l | APHA 23 rd Ed. 2017-4500- SO ₄ ²⁻ | 28.0 | 1.0 - 500 | 200 | 400 |
| 16 | Alkalinity as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2320 B | 284.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 256.0 | 5.0 - 800 | 200 | 600 |
| 18 | Aluminium as Al | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.015 - 5.0 | 0.03 | 0.2 |
| 19 | Boron as B | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 2.0 | 0.5 | 1.0 |
| 20 | Copper as Cu | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.03 - 10 | 0.05 | 1.5 |



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Test Report Ref No.: ETRC/EPA/9080/2023

| | | | | | | | |
|-----------------------------------|-----------------|------------|---|--------|--------------------------------------|--|---------------|
| 21 | Iron as Fe | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.09 | 0.05 - 20 | 0.3 | No Relaxation |
| 22 | Manganese as Mn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.06 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.56 | 0.05 - 15 | 5 | 15 |
| 24 | Cadmium as Cd | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 2.0 | 0.003 | No Relaxation |
| 25 | Lead as Pb | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.01 - 10 | 0.01 | No Relaxation |
| 26 | Mercury as Hg | µg/l | APHA 23 rd Ed. 2017-3112 B | BDL | 0.5 - 1000 | 1.0 | No Relaxation |
| 27 | Nickel as Ni | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 5.0 | 0.02 | No Relaxation |
| 28 | Arsenic as As | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.02 - 2.0 | 0.01 | 0.05 |
| 29 | Total Chromium | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.03 - 5.0 | 0.05 | No Relaxation |
| Microbiological Parameters | | | | | | | |
| 30 | E. coli | MPN/100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |
| 31 | T. coli | MPN/100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |


BDL=Below Detection Limit

..... END OF REPORT.....

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ETRC/PM09/TEST-REP/FT/45

TEST REPORT WATER & WASTE WATER ANALYSIS

| | |
|---|--|
| Test Report Ref No.: ETRC/EPA/9221/2023 | Date of Report: 23/08/2023 |
| Name /Address/Type of Industry | M/s Indian Potash Limited Unit: Rohana Kalan (Distillery Division) P.O.: Rohana Mill, Block: Charthawal Tehsil: Muzzaffarnagar District: Muzaffarnagar (U.P.) - 251202 |

SAMPLE DETAILS

| | | | | | |
|---|----------------------|------------------------------|---|---------------------|---------------|
| 1 | Water/ Waste Water | Ground Water | 5 | Packing Condition | Sealed |
| 2 | Sample Description | Borewell (Near Project Site) | 6 | Sample Collected By | Industry Self |
| 3 | Sample received date | 19.08.2023 | 7 | Analysis Start Date | 19.08.2023 |
| 4 | Sample Quantity | 5.0 liters | 8 | Analysis End Date | 22.08.2023 |

TEST RESULT

| Sr. No | Test Parameter | Unit | Protocol/Test Method | Result | Range of testing /limit of detection | Indian Standard 10500: 2012 | |
|-----------------------------|---|-------|--|-----------|--------------------------------------|-----------------------------|---------------|
| | | | | | | Desirable | Permissible |
| Physico-chemical Parameters | | | | | | | |
| 1 | Colour | Hazen | IS: 3025 (Part-4): 1983 Reaffirmed: 2017 | <5.0 | 5 - 30 | 5 | 15 |
| 2 | Odour | - | IS: 3025 (Part-5): 1983 Reaffirmed: 2017 | Agreeable | Qualitative | Agreeable | Agreeable |
| 3 | pH | - | APHA 23 rd Ed. 2017-4500 H ⁺ | 7.3 | 1 - 14 | 6.5-8.5 | No Relaxation |
| 4 | Turbidity | NTU | APHA 23 rd Ed. 2017-2130 B | BDL | 2 - 40 | 1 | 5 |
| 5 | Total Dissolved Solids (TDS) | mg/l | IS: 3025 (Part-16): 1984 Reaffirmed: 2017 | 375.6 | 10 - 5000 | 500 | 2000 |
| 6 | Ammonia (as total ammonia-N) | mg/l | APHA 23 rd Ed. 2017-4500-NH ₃ F | BDL | 0.5 - 2 | 0.5 | No Relaxation |
| 7 | Anionic Detergents (as MBAS) | mg/l | APHA 23 rd Ed. 2017-5540 C | BDL | 0.05 - 0.5 | 0.2 | 1.0 |
| 8 | Calcium as Ca | mg/l | IS: 3025 (Part-40): 1991 Reaffirmed: 2019 | 54.4 | 2.0 - 600 | 75 | 200 |
| 9 | Magnesium as Mg | mg/l | APHA 23 rd Ed. 2017-3500 Mg, B | 30.13 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl ⁻ B | 28.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F ⁻ C | 0.39 | 0.02 - 5.0 | 1.0 | 1.5 |
| 12 | Free Residual Chlorine | mg/l | IS: 3025 (Part-26): 1986 Reaffirmed: 2019 | BDL | 0.1 - 5.0 | 0.2 | 1.0 |
| 13 | Nitrate as NO ₃ | mg/l | IS: 3025 (Part-34): 1986 Reaffirmed: 2019 | BDL | 1.0 - 70 | 45 | No Relaxation |
| 14 | Phenolic Compound (as C ₆ H ₅ OH) | mg/l | APHA 23 rd Ed. 2017-5530 C | BDL | 0.001 - 0.005 | 0.001 | 0.002 |
| 15 | Sulphate as SO ₄ | mg/l | APHA 23 rd Ed. 2017-4500- SO ₄ ²⁻ | 30.0 | 1.0 - 500 | 200 | 400 |
| 16 | Alkalinity as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2320 B | 280.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 260.0 | 5.0 - 800 | 200 | 600 |
| 18 | Aluminium as Al | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.015 - 5.0 | 0.03 | 0.2 |
| 19 | Boron as B | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 2.0 | 0.5 | 1.0 |
| 20 | Copper as Cu | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.03 - 10 | 0.05 | 1.5 |



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Test Report Ref No.: ETRC/EPA/9221/2023

| | | | | | | | |
|----------------------------|-----------------|------------|---|--------|---|---|---------------|
| 21 | Iron as Fe | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.13 | 0.05 - 20 | 0.3 | No Relaxation |
| 22 | Manganese as Mn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.02 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.64 | 0.05 - 15 | 5 | 15 |
| 24 | Cadmium as Cd | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 2.0 | 0.003 | No Relaxation |
| 25 | Lead as Pb | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.01 - 10 | 0.01 | No Relaxation |
| 26 | Mercury as Hg | µg/l | APHA 23 rd Ed. 2017-3112 B | BDL | 0.5 - 1000 | 1.0 | No Relaxation |
| 27 | Nickel as Ni | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 5.0 | 0.02 | No Relaxation |
| 28 | Arsenic as As | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.02 - 2.0 | 0.01 | 0.05 |
| 29 | Total Chromium | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.03 - 5.0 | 0.05 | No Relaxation |
| Microbiological Parameters | | | | | | | |
| 30 | E. coli | MPN/100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |
| 31 | T. coli | MPN/100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |

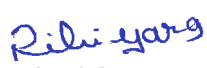
BDL=Below Detection Limit

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(Sandeep Kr Verma)
Lab-Incharge




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ETRC/PM09/TEST-REP/FT/42

TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|---|--|--|--|
| Test Report Ref No.: ETRC/EPA/9294/2023 | | Date of Report: 20/09/2023 | |
| Name /Address/Type of Industry | | M/s Indian Potash Limited Unit: Rohana Kalan (Distillery Division) P.O.: Rohana Mill, Block: Charthawal Tehsil: Muzzaffarnagar District: Muzaffarnagar (U.P.) - 251202 | |
| Monitored by | | ETRC, Lucknow | |
| Location of Sampling point | | Baheri | |
| Sr. No. | GENERAL OBSERVATIONS | DETAILS-PM ₁₀ | DETAILS-PM _{2.5} |
| 1(a) | Weather conditions | Clear | Clear |
| (b) | Wind direction | West to East | West to East |
| (c) | Average humidity (%) | 54 | 54 |
| (d) | Average ambient temperature (°C) | 29 | 29 |
| (e) | Time of Sampling Started (Hours) | 08:29 am (14.09.2023) | 08:29 am (14.09.2023) |
| (f) | Time of Sampling completed (Hours) | 08:10 am (15.09.2023) | 08:10 am (15.09.2023) |
| (g) | Total time of sampling (Minutes) | 24 hour (1415 minutes) | 24 hour (1415 minutes) |
| 2 | Average sampling rate for PM (m ³ /minute) | 1.175 | NA |
| 3 | Average sampling rate for gas (LPM) | 0.5 | NA |
| 4 | TOTAL VOLUME OF AIR SAMPLED <ul style="list-style-type: none">PM (m³)GAS (liter) | <ul style="list-style-type: none">1663.095707.7 | <ul style="list-style-type: none">23.589 |

TEST RESULT

| Sr. No. | Particulars | Protocol | Unit | Result | Range of testing /limit of detection | Standard as per NAAQS; dated 18/11/ 2009 |
|---------|--|--|-------------------|--------|--------------------------------------|--|
| 1 | Particulate matters size less than 10 µm (PM ₁₀) | IS: 5182 (Part-23): 2006 Reaffirmed: 2022 | µg/m ³ | 81.5 | 5.0 - 1200 | For 24 hour =100 |
| 2 | Particulate matters size less than 2.5 µm (PM _{2.5}) | IS: 5182 (Part-24): 2019 | µg/m ³ | 49.60 | 2.0 - 500 | For 24 hour =60 |
| 3 | Sulphur Dioxide (SO ₂) | IS: 5182 (Part-2): 2001 Reaffirmed: 2022 | µg/m ³ | 14.01 | 5.0 - 1050 | For 24 hour =80 |
| 4 | Nitrogen Dioxide (NO ₂) | IS: 5182 (Part-6): 2006 Reaffirmed: 2022 | µg/m ³ | 18.98 | 6.0 - 750 | For 24 hour =80 |

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ETRC/PM09/TEST-REP/FT/42

TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|---|---|---|---------------------------|
| Test Report Ref No.: ETRC/EPA/9295/2023 | | Date of Report: 20/09/2023 | |
| Name /Address/Type of Industry | | M/s Indian Potash Limited Unit: Rohana Kalan (Distillery Division) P.O.: Rohana Mill, Block: Charthawal Tehsil: Muzaffarnagar District: Muzaffarnagar (U.P.) - 251202 | |
| Monitored by | | ETRC, Lucknow | |
| Location of Sampling point | | Saidpur | |
| Sr. No. | GENERAL OBSERVATIONS | DETAILS-PM ₁₀ | DETAILS-PM _{2.5} |
| 1(a) | Weather conditions | Clear | Clear |
| (b) | Wind direction | West to East | West to East |
| (c) | Average humidity (%) | 54 | 54 |
| (d) | Average ambient temperature (°C) | 29 | 29 |
| (e) | Time of Sampling Started (Hours) | 08:35 am (14.09.2023) | 08:35 am (14.09.2023) |
| (f) | Time of Sampling completed (Hours) | 08:20 am (15.09.2023) | 08:20 am (15.09.2023) |
| (g) | Total time of sampling (Minutes) | 24 hour (1409 minutes) | 24 hour (1409 minutes) |
| 2 | Average sampling rate for PM (m ³ /minute) | 1.155 | NA |
| 3 | Average sampling rate for gas (LPM) | 0.5 | NA |
| 4 | TOTAL VOLUME OF AIR SAMPLED | | |
| | • PM (m ³) | • 1627.164 | • 23.478 |
| | • GAS (liter) | • 704.4 | |

TEST RESULT

| Sr. No. | Particulars | Protocol | Unit | Result | Range of testing /limit of detection | Standard as per NAAQS; dated 18/11/ 2009 |
|---------|--|--|-------------------|--------|--------------------------------------|--|
| 1 | Particulate matters size less than 10 µm (PM ₁₀) | IS: 5182 (Part-23): 2006 Reaffirmed: 2022 | µg/m ³ | 79.4 | 5.0 - 1200 | For 24 hour =100 |
| 2 | Particulate matters size less than 2.5 µm (PM _{2.5}) | IS: 5182 (Part-24): 2019 | µg/m ³ | 46.43 | 2.0 - 500 | For 24 hour =60 |
| 3 | Sulphur Dioxide (SO ₂) | IS: 5182 (Part-2): 2001 Reaffirmed: 2022 | µg/m ³ | 13.25 | 5.0 - 1050 | For 24 hour =80 |
| 4 | Nitrogen Dioxide (NO ₂) | IS: 5182 (Part-6): 2006 Reaffirmed: 2022 | µg/m ³ | 18.63 | 6.0 - 750 | For 24 hour =80 |

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ETRC/PM09/TEST-REP/FT/42

TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|---|---|---|---------------------------|
| Test Report Ref No.: ETRC/EPA/9296/2023 | | Date of Report: 20/09/2023 | |
| Name /Address/Type of Industry | | M/s Indian Potash Limited Unit: Rohana Kalan (Distillery Division) P.O.: Rohana Mill, Block: Charthawal Tehsil: Muzaffarnagar District: Muzaffarnagar (U.P.) - 251202 | |
| Monitored by | | ETRC, Lucknow | |
| Location of Sampling point | | Khampur | |
| Sr. No. | GENERAL OBSERVATIONS | DETAILS-PM ₁₀ | DETAILS-PM _{2.5} |
| 1(a) | Weather conditions | Clear | Clear |
| (b) | Wind direction | West to East | West to East |
| (c) | Average humidity (%) | 54 | 54 |
| (d) | Average ambient temperature (°C) | 29 | 29 |
| (e) | Time of Sampling Started (Hours) | 08:40 am (14.09.2023) | 08:40 am (14.09.2023) |
| (f) | Time of Sampling completed (Hours) | 08:26 am (15.09.2023) | 08:26 am (15.09.2023) |
| (g) | Total time of sampling (Minutes) | 24 hour (1419 minutes) | 24 hour (1419 minutes) |
| 2 | Average sampling rate for PM (m ³ /minute) | 1.165 | NA |
| 3 | Average sampling rate for gas (LPM) | 0.5 | NA |
| 4 | TOTAL VOLUME OF AIR SAMPLED | | |
| | • PM (m ³) | • 1653.135 | • 23.649 |
| | • GAS (liter) | • 709.5 | |

TEST RESULT

| Sr. No. | Particulars | Protocol | Unit | Result | Range of testing /limit of detection | Standard as per NAAQS; dated 18/11/2009 |
|---------|--|--|-------------------|--------|--------------------------------------|---|
| 1 | Particulate matters size less than 10 µm (PM ₁₀) | IS: 5182 (Part-23): 2006 Reaffirmed: 2022 | µg/m ³ | 76.8 | 5.0 - 1200 | For 24 hour =100 |
| 2 | Particulate matters size less than 2.5 µm (PM _{2.5}) | IS: 5182 (Part-24): 2019 | µg/m ³ | 46.94 | 2.0 - 500 | For 24 hour =60 |
| 3 | Sulphur Dioxide (SO ₂) | IS: 5182 (Part-2): 2001 Reaffirmed: 2022 | µg/m ³ | 13.25 | 5.0 - 1050 | For 24 hour =80 |
| 4 | Nitrogen Dioxide (NO ₂) | IS: 5182 (Part-6): 2006 Reaffirmed: 2022 | µg/m ³ | 18.66 | 6.0 - 750 | For 24 hour =80 |

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ETRC/PM09/TEST-REP/FT/42

TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|---|--|--|--|
| Test Report Ref No.: ETRC/EPA/9297/2023 | | Date of Report: 20/09/2023 | |
| Name /Address/Type of Industry | | M/s Indian Potash Limited Unit: Rohana Kalan (Distillery Division) P.O.: Rohana Mill, Block: Charthawal Tehsil: Muzzaffarnagar District: Muzaffarnagar (U.P.) - 251202 | |
| Monitored by | | ETRC, Lucknow | |
| Location of Sampling point | | Near Project Site | |
| Sr. No. | GENERAL OBSERVATIONS | DETAILS-PM ₁₀ | DETAILS-PM _{2.5} |
| 1(a) | Weather conditions | Clear | Clear |
| (b) | Wind direction | West to East | West to East |
| (c) | Average humidity (%) | 54 | 54 |
| (d) | Average ambient temperature (°C) | 29 | 29 |
| (e) | Time of Sampling Started (Hours) | 08:46 am (14.09.2023) | 08:46 am (14.09.2023) |
| (f) | Time of Sampling completed (Hours) | 08:31 am (15.09.2023) | 08:31 am (15.09.2023) |
| (g) | Total time of sampling (Minutes) | 24 hour (1420 minutes) | 24 hour (1420 minutes) |
| 2 | Average sampling rate for PM (m ³ /minute) | 1.145 | NA |
| 3 | Average sampling rate for gas (LPM) | 0.5 | NA |
| 4 | TOTAL VOLUME OF AIR SAMPLED <ul style="list-style-type: none">PM (m³)GAS (liter) | <ul style="list-style-type: none">1626.129710.1 | <ul style="list-style-type: none">23.671 |

TEST RESULT


| Sr. No. | Particulars | Protocol | Unit | Result | Range of testing /limit of detection | Standard as per NAAQS; dated 18/11/ 2009 |
|---------|--|---|-------------------|--------|--------------------------------------|--|
| 1 | Particulate matters size less than 10 µm (PM ₁₀) | IS: 5182 (Part-23): 2006 Reaffirmed: 2022 | µg/m ³ | 80.9 | 5.0 - 1200 | For 24 hour =100 |
| 2 | Particulate matters size less than 2.5 µm (PM _{2.5}) | IS: 5182 (Part-24): 2019 | µg/m ³ | 49.85 | 2.0 - 500 | For 24 hour =60 |
| 3 | Sulphur Dioxide (SO ₂) | IS: 5182 (Part-2): 2001 Reaffirmed: 2022 | µg/m ³ | 14.04 | 5.0 - 1050 | For 24 hour =80 |
| 4 | Nitrogen Dioxide (NO ₂) | IS: 5182 (Part-6): 2006 Reaffirmed: 2022 | µg/m ³ | 19.38 | 6.0 - 750 | For 24 hour =80 |

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ETRC/PM09/TEST-REP/FT/43

TEST REPORT STACK EMISSION MONITORING AND ANALYSIS REPORT


| | | | |
|---|-------------------------------------|--|--|
| Test Report Ref No.: ETRC/EPA/9298/2023 | | Date of Report: 20/09/2023 | |
| Name /Address/Type of Industry | | M/s Indian Potash Limited Unit: Rohana Kalan (Distillery Division) P.O.: Rohana Mill, Block: Charthawal Tehsil: Muzzaffarnagar District: Muzaffarnagar (U.P.) - 251202 | |
| Monitored by | | ETRC, Lucknow | |
| Sr. No. | GENERAL INFORMATION | DETAILS | |
| 1.(a) | Date of monitoring | 13.09.2023 | |
| (b) | Stack material | RCC | |
| (c) | Height of stack from ground level | 70.0 mts | |
| (d) | Source to which stack attached | Boiler | |
| (e) | No of boiler attached with capacity | 01 No. (22.0 TPH) | |
| (f) | Type and quantity of fuel used | Slop & Bagasse | |
| (g) | Details of APCS installed | ESP | |
| 2. | PARAMETERS | VALUES | |
| (a) | Ambient temperature (°C) | 34.0 | |
| (b) | Stack gas temperature (°C) | 135.0 | |
| (c) | Stack gas velocity (m/sec) | 11.87 | |
| (d) | Flow rate (LPM) | 17 | |
| (e) | Sampling time (minutes) | 60 | |
| (f) | Volume of air sampled (liters) | 1020 | |

TEST RESULT

| Sr. No. | Parameter | Unit | Protocol | Result | Range of Testing / Limit of Detection | Standard (as per CPCB) |
|---------|--------------------|--------------------|--|--------|---------------------------------------|------------------------|
| 1 | Particulate Matter | mg/Nm ³ | IS: 11255 (Part-1): 1985 Reaffirmed: 2019 | 44.6 | 2.0 - 1000 | 150 |

..... END OF REPORT.....

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- All disputes subject to Lucknow jurisdiction.
- This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
- Complain register is available in our laboratory.


Authorized Signatory
(Sandeep Kr Verma)
Lab-Incharge




Authorized Signatory
(Ritu Garg)
QM



ENVIRONMENTAL AND TECHNICAL RESEARCH CENTRE

Office & Laboratory: 2/281, Vishwas Khand, Gomti Nagar, Lucknow- 226 010 (U.P.)

Email : ETRCLTH@YAHOO.IN, Web: www.etrcltdia.com

ISO 9001: 2015, ISO 14001: 2015, ISO 45001: 2018 & NABL Accredited Laboratory

ETRC/PM09/TEST-REP/FT/44

TEST REPORT AMBIENT NOISE MONITORING AND ANALYSIS REPORT

| | | | |
|---|-------------------------|---|--|
| Test Report Ref No.: ETRC/EPA/9299/2023 | | Date of Report: 20/09/2023 | |
| Name /Address/Type of Industry | | M/s Indian Potash Limited Unit: Rohana Kalan (Distillery Division) P.O.: Rohana Mill, Block: Charthawal Tehsil: Muzaffarnagar District: Muzaffarnagar (U.P.) - 251202 | |
| Monitored by | | ETRC, Lucknow | |
| Sr. No. | GENERAL INFORMATION | DETAILS | |
| (a) | Date of monitoring | 14/09/2023 (06:00 AM) to 15/09/2023 (06:00 AM) | |
| (b) | Sample Description | Ambient Noise | |
| (c) | Sampling Location | Near Project Site | |
| (d) | Environmental Condition | Normal | |

TEST RESULT

| Ambient Noise Level | | | | |
|---------------------|------------------------|-------|---|---|
| Sr. No. | Parameter | Unit | Results DAY TIME (6:00 AM - 10:00 PM) | Results NIGHT TIME (10:00 PM - 6:00 AM) |
| 1 | Equivalent sound level | dB(A) | 59.46 | 48.25 |


| Noise Standards as per CPCB Schedule rule 3(1) and 4(1) | | | |
|---|-----------------------|---------------------|------------|
| Area Code | Category of Area/Zone | Limits in dB(A) Leq | |
| | | Day Time | Night Time |
| A | Industrial Area | 75 | 70 |
| B | Commercial Area | 65 | 55 |
| C | Residential Area | 55 | 45 |
| D | Silence Zone | 50 | 40 |

..... END OF REPORT.....

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Authorized Signatory
(Sandeep Kr Verma)
Lab-Incharge




Authorized Signatory
(Ritu Garg)
QM



ENVIRONMENTAL AND TECHNICAL RESEARCH CENTRE

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Email : ETRCLTH@YAHOO.IN, Web: www.etrcltdia.com

ISO 9001: 2015, ISO 14001: 2015, ISO 45001: 2018 & NABL Accredited Laboratory

ETRC/PM09/TEST-REP/FT/45

TEST REPORT WATER & WASTE WATER ANALYSIS

| | |
|---|--|
| Test Report Ref No.: ETRC/EPA/9300/2023 | Date of Report: 20/09/2023 |
| Name /Address/Type of Industry | M/s Indian Potash Limited Unit: Rohana Kalan (Distillery Division) P.O.: Rohana Mill, Block: Charthawal Tehsil: Muzzaffarnagar District: Muzaffarnagar (U.P.) - 251202 |

SAMPLE DETAILS

| | | | | | |
|---|----------------------|------------------------------|---|---------------------|------------|
| 1 | Water/ Waste Water | Ground Water | 5 | Packing Condition | Sealed |
| 2 | Sample Description | Borewell (Near Project Site) | 6 | Sample Collected By | ETRC |
| 3 | Sample received date | 15.09.2023 | 7 | Analysis Start Date | 15.09.2023 |
| 4 | Sample Quantity | 5.0 liters | 8 | Analysis End Date | 19.09.2023 |

TEST RESULT

| Sr. No | Test Parameter | Unit | Protocol/Test Method | Result | Range of testing /limit of detection | Indian Standard 10500: 2012 | |
|-----------------------------|---|-------|--|-----------|--------------------------------------|-----------------------------|---------------|
| | | | | | | Desirable | Permissible |
| Physico-chemical Parameters | | | | | | | |
| 1 | Colour | Hazen | IS: 3025 (Part-4): 1983 Reaffirmed: 2017 | <5.0 | 5 - 30 | 5 | 15 |
| 2 | Odour | - | IS: 3025 (Part-5): 1983 Reaffirmed: 2017 | Agreeable | Qualitative | Agreeable | Agreeable |
| 3 | pH | - | APHA 23 rd Ed. 2017-4500 H ⁺ | 7.4 | 1 - 14 | 6.5-8.5 | No Relaxation |
| 4 | Turbidity | NTU | APHA 23 rd Ed. 2017-2130 B | BDL | 2 - 40 | 1 | 5 |
| 5 | Total Dissolved Solids (TDS) | mg/l | IS: 3025 (Part-16): 1984 Reaffirmed: 2017 | 392.0 | 10 - 5000 | 500 | 2000 |
| 6 | Ammonia (as total ammonia-N) | mg/l | APHA 23 rd Ed. 2017-4500-NH ₃ F | BDL | 0.5 - 2 | 0.5 | No Relaxation |
| 7 | Anionic Detergents (as MBAS) | mg/l | APHA 23 rd Ed. 2017-5540 C | BDL | 0.05 - 0.5 | 0.2 | 1.0 |
| 8 | Calcium as Ca | mg/l | IS: 3025 (Part-40): 1991 Reaffirmed: 2019 | 56.3 | 2.0 - 600 | 75 | 200 |
| 9 | Magnesium as Mg | mg/l | APHA 23 rd Ed. 2017-3500 Mg, B | 30.13 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl ⁻ B | 26.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F ⁻ C | 0.34 | 0.02 - 5.0 | 1.0 | 1.5 |
| 12 | Free Residual Chlorine | mg/l | IS: 3025 (Part-26): 1986 Reaffirmed: 2019 | BDL | 0.1 - 5.0 | 0.2 | 1.0 |
| 13 | Nitrate as NO ₃ | mg/l | IS: 3025 (Part-34): 1986 Reaffirmed: 2019 | BDL | 1.0 - 70 | 45 | No Relaxation |
| 14 | Phenolic Compound (as C ₆ H ₅ OH) | mg/l | APHA 23 rd Ed. 2017-5530 C | BDL | 0.001 - 0.005 | 0.001 | 0.002 |
| 15 | Sulphate as SO ₄ | mg/l | APHA 23 rd Ed. 2017-4500- SO ₄ ²⁻ | 28.0 | 1.0 - 500 | 200 | 400 |
| 16 | Alkalinity as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2320 B | 292.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 264.0 | 5.0 - 800 | 200 | 600 |
| 18 | Aluminium as Al | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.015 - 5.0 | 0.03 | 0.2 |
| 19 | Boron as B | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 2.0 | 0.5 | 1.0 |
| 20 | Copper as Cu | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.03 - 10 | 0.05 | 1.5 |



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Test Report Ref No.: ETRC/EPA/9300/2023

| | | | | | | | |
|----------------------------|-----------------|-------------|---|--------|--------------------------------------|--|---------------|
| 21 | Iron as Fe | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.14 | 0.05 - 20 | 0.3 | No Relaxation |
| 22 | Manganese as Mn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.04 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.58 | 0.05 - 15 | 5 | 15 |
| 24 | Cadmium as Cd | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 2.0 | 0.003 | No Relaxation |
| 25 | Lead as Pb | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.01 - 10 | 0.01 | No Relaxation |
| 26 | Mercury as Hg | µg/l | APHA 23 rd Ed. 2017-3112 B | BDL | 0.5 - 1000 | 1.0 | No Relaxation |
| 27 | Nickel as Ni | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.05 - 5.0 | 0.02 | No Relaxation |
| 28 | Arsenic as As | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.02 - 2.0 | 0.01 | 0.05 |
| 29 | Total Chromium | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | BDL | 0.03 - 5.0 | 0.05 | No Relaxation |
| Microbiological Parameters | | | | | | | |
| 30 | E. coli | MPN/ 100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |
| 31 | T. coli | MPN/ 100 ml | IS: 1622 - 1981 Reaffirmed: 2019 | Absent | ≥ 2 MPN Present or Absent per 100 ml | Shall not be detected in any 100 ml sample | |


BDL=Below Detection Limit

..... END OF REPORT.....

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(Sandeep Kr Verma)
Lab-Incharge




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(Ritu Garg)
QM



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ISO 9001: 2015, ISO 14001: 2015, ISO 45001: 2018 & NABL Accredited Laboratory

ETRC/PM09/TEST-REP/FT/46

TEST REPORT SOIL ANALYSIS

| | |
|---|--|
| Test Report Ref No.: ETRC/EPA/9301/2023 | Date of Report: 20/09/2023 |
| Name /Address/Type of Industry | M/s Indian Potash Limited Unit: Rohana Kalan (Distillery Division) P.O.: Rohana Mill, Block: Charthawal Tehsil: Muzzaffarnagar District: Muzaffarnagar (U.P.) - 251202 |

SAMPLE DETAILS

| | | | | | |
|---|----------------------|-------------------|---|---------------------|------------|
| 1 | Sampling Location | Near Project Site | 5 | Packing Condition | Sealed |
| 2 | Sample Description | Soil Sample | 6 | Sample Collected By | ETRC |
| 3 | Sample received date | 15.09.2023 | 7 | Analysis Start Date | 15.09.2023 |
| 4 | Sample Quantity | 500 gm | 8 | Analysis End Date | 18.09.2023 |


TEST REPORT

| Sr. No. | Test Parameter | Unit | Protocol/ Test Method | Result | Range of testing /limit of detection |
|---------|-------------------------|----------|--|--------|--------------------------------------|
| 1 | pH | - | IS: 2720 (Part-26): 1987 Reaffirmed: 2021 | 7.2 | 1 - 14 |
| 2 | Electrical Conductivity | µmhos/cm | IS: 14767:2000 Reaffirmed 2021 | 298.0 | 1.0 - 40000 |
| 3 | Moisture content | % | IS: 2720 (Part -2): 1973 Reaffirmed: 2020 | 3.10 | 1.0 - 50 |
| 4 | Sulphur | Kg/Hec | IS: 14685: 1999 Reaffirmed: 2019 | 12.58 | 5.0 - 100 |
| 5 | Boron | mg/kg | Method Manual of Soil Testing in India | BDL | 4.0 - 100 |
| 6 | Copper | mg/kg | Method Manual of Soil Testing in India | 0.39 | 0.3 - 500 |
| 7 | Zinc | mg/kg | Method Manual of Soil Testing in India | 5.36 | 1.0 - 500 |
| 8 | Iron | mg/kg | Method Manual of Soil Testing in India | 96.4 | 5.0 - 500 |
| 9 | Manganese | mg/kg | Method Manual of Soil Testing in India | 8.4 | 5.0 - 500 |

BDL= Below Detection Limit

..... END OF REPORT.....

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Lab-Incharge




Authorized Signatory
(Ritu Garg)
QM

Forbes Marshall

INDIAN POTASH LIMITED DISTILLERY UNIT

Rohana Kalan, Vilage: Bahedi, P.O.: Rohana Mill, Block-Charthawal, & District: Muzaffarnagar (U.P.) , Pin-251202, MUZAFFARNAGAR,251202, Charthawal, & District: Muzaffarnagar (U.P.) , Pin-251202, MUZAFFARNAGAR,251202,

Station Report

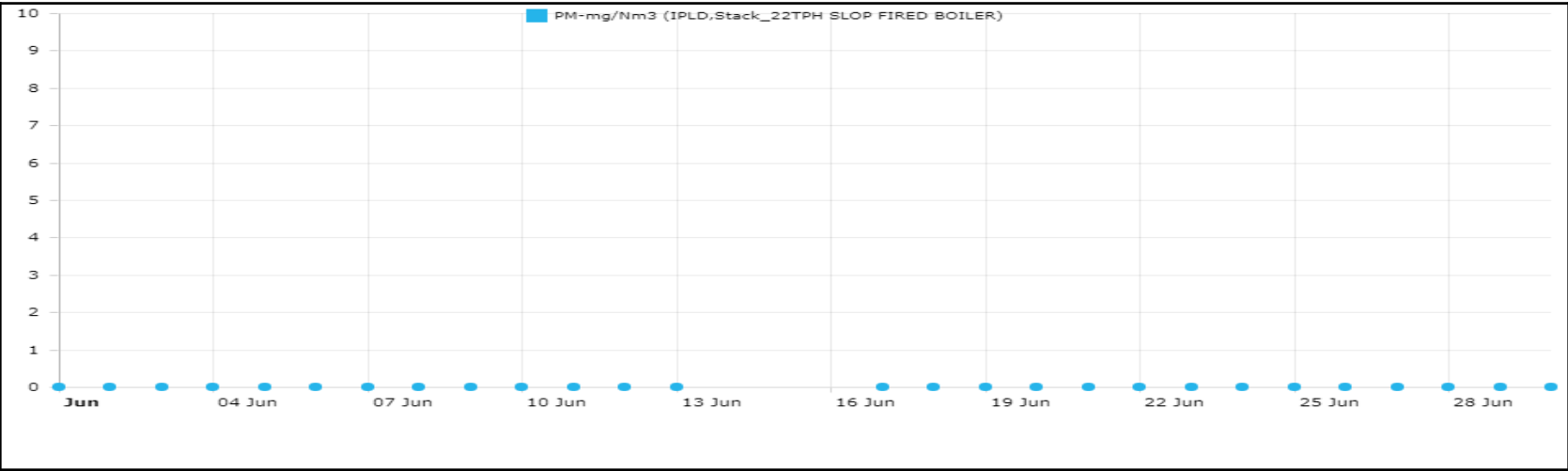
Station: Stack_22TPH SLOP FIRED BOILER

From : 01-05-2023 00:00:00

To : 31-05-2023 23:59:59

Interval : Daily

Function : Average



| | | | | | | |
|--|----------|--|--|--|--|--|
| <div> <div>Flag legends:</div> <div> < - Average with less data, C - Calibration mode, M - Maintenance mode, S - Data under scrutiny, B - Bad data, H - High permissible limit crossed, L - Low permissible limit crossed, P - Processed Data, V - Corrected Data, D - Delayed Data,R- Analyzer drift </div> </div> | | | | | | |
| Calender | PM Avg | | | | | |
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 10-05-2023 00:00:00 | 2.64 < | | | | | |
| 11-05-2023 00:00:00 | 2.34 < | | | | | |
| 12-05-2023 00:00:00 | 2.76 < | | | | | |
| 13-05-2023 00:00:00 | 2.24 < | | | | | |
| 14-05-2023 00:00:00 | 1.09 < R | | | | | |

| | | | | | | |
|---------------------|----------|--|--|--|--|--|
| Calender | PM Avg | | | | | |
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 15-05-2023 00:00:00 | 0.00 < R | | | | | |
| 16-05-2023 00:00:00 | 0.00 < R | | | | | |
| 19-05-2023 00:00:00 | 0.00 < R | | | | | |
| 20-05-2023 00:00:00 | 0.00 < R | | | | | |
| 21-05-2023 00:00:00 | 0.00 < R | | | | | |
| 22-05-2023 00:00:00 | 0.00 < R | | | | | |
| 23-05-2023 00:00:00 | 0.00 < R | | | | | |
| 24-05-2023 00:00:00 | 0.00 < R | | | | | |
| 25-05-2023 00:00:00 | 0.00 < R | | | | | |
| 26-05-2023 00:00:00 | 0.00 < R | | | | | |
| 27-05-2023 00:00:00 | 0.00 < R | | | | | |
| 28-05-2023 00:00:00 | 0.00 < R | | | | | |
| 29-05-2023 00:00:00 | 0.00 < R | | | | | |
| 30-05-2023 00:00:00 | 0.00 < R | | | | | |
| 31-05-2023 00:00:00 | 0.00 < R | | | | | |

Report Summary

| | | | | | | |
|-----------------------|------|--|--|--|--|--|
| Average | 0.55 | | | | | |
| Maximum | 2.76 | | | | | |
| Minimum | 0.00 | | | | | |
| Std.Deviation | 1.03 | | | | | |
| Geom.Mean | 2.11 | | | | | |
| Median | 0.00 | | | | | |
| Mode | 0.00 | | | | | |
| Total Active Duration | | | | | | |

Forbes Marshall

INDIAN POTASH LIMITED DISTILLERY UNIT

Rohana Kalan, Vilage: Bahedi, P.O.: Rohana Mill, Block-Charthawal, & District: Muzaffarnagar (U.P.) , Pin-251202, MUZAFFARNAGAR,251202, Charthawal, & District: Muzaffarnagar (U.P.) , Pin-251202, MUZAFFARNAGAR,251202,

Station Report

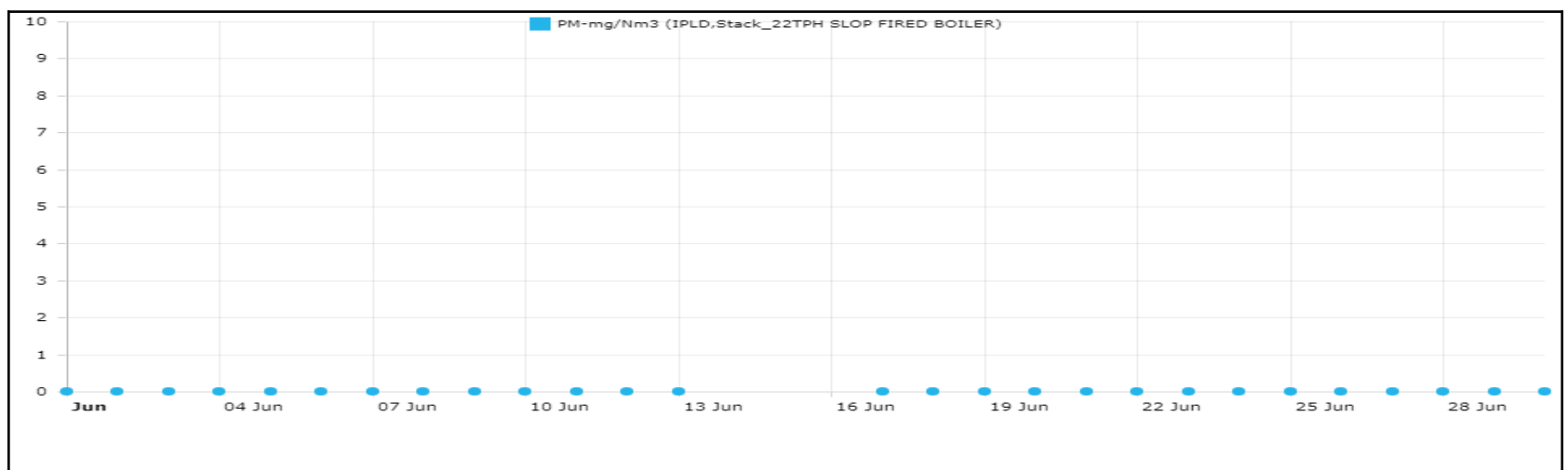
Station: Stack_22TPH SLOP FIRED BOILER

From : 01-06-2023 00:00:00

To : 30-06-2023 23:59:59

Interval : Daily

Function : Average



Flag legends: < - Average with less data, C - Calibration mode, M - Maintenance mode, S - Data under scrutiny, B - Bad data, H - High permissible limit crossed, L - Low permissible limit crossed, P - Processed Data, V - Corrected Data, D - Delayed Data, R - Analyzer drift

| Calender | PM Avg | | | | | |
|---------------------|----------|--|--|--|--|--|
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 01-06-2023 00:00:00 | 0.00 < R | | | | | |
| 02-06-2023 00:00:00 | 0.00 < R | | | | | |
| 03-06-2023 00:00:00 | 0.00 < R | | | | | |
| 04-06-2023 00:00:00 | 0.00 < R | | | | | |
| 05-06-2023 00:00:00 | 0.00 < R | | | | | |

| | | | | | | |
|---------------------|----------|--|--|--|--|--|
| Calender | PM Avg | | | | | |
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 06-06-2023 00:00:00 | 0.00 < R | | | | | |
| 07-06-2023 00:00:00 | 0.00 < R | | | | | |
| 08-06-2023 00:00:00 | 0.00 < R | | | | | |
| 09-06-2023 00:00:00 | 0.00 < R | | | | | |
| 10-06-2023 00:00:00 | 0.00 < R | | | | | |
| 11-06-2023 00:00:00 | 0.00 < R | | | | | |
| 12-06-2023 00:00:00 | 0.00 < R | | | | | |
| 13-06-2023 00:00:00 | 0.00 < R | | | | | |
| 17-06-2023 00:00:00 | 0.00 < R | | | | | |
| 18-06-2023 00:00:00 | 0.00 < R | | | | | |
| 19-06-2023 00:00:00 | 0.00 < R | | | | | |
| 20-06-2023 00:00:00 | 0.00 < R | | | | | |
| 21-06-2023 00:00:00 | 0.00 < R | | | | | |
| 22-06-2023 00:00:00 | 0.00 < R | | | | | |
| 23-06-2023 00:00:00 | 0.00 < R | | | | | |
| 24-06-2023 00:00:00 | 0.00 < R | | | | | |
| 25-06-2023 00:00:00 | 0.00 < R | | | | | |
| 26-06-2023 00:00:00 | 0.00 < R | | | | | |
| 27-06-2023 00:00:00 | 0.00 < R | | | | | |
| 28-06-2023 00:00:00 | 0.00 < R | | | | | |
| 29-06-2023 00:00:00 | 0.00 < R | | | | | |
| 30-06-2023 00:00:00 | 0.00 < R | | | | | |

Report Summary

| | | | | | | |
|-----------------------|------|--|--|--|--|--|
| Average | 0.00 | | | | | |
| Maximum | 0.00 | | | | | |
| Minimum | 0.00 | | | | | |
| Std.Deviation | 0.00 | | | | | |
| Geom.Mean | NaN | | | | | |
| Median | 0.00 | | | | | |
| Mode | 0.00 | | | | | |
| Total Active Duration | | | | | | |

Forbes Marshall

INDIAN POTASH LIMITED DISTILLERY UNIT

Rohana Kalan, Vilage: Bahedi, P.O.: Rohana Mill, Block-Charthawal, & District: Muzaffarnagar (U.P.) , Pin-251202, MUZAFFARNAGAR,251202, Charthawal, & District: Muzaffarnagar (U.P.) , Pin-251202, MUZAFFARNAGAR,251202,

Station Report

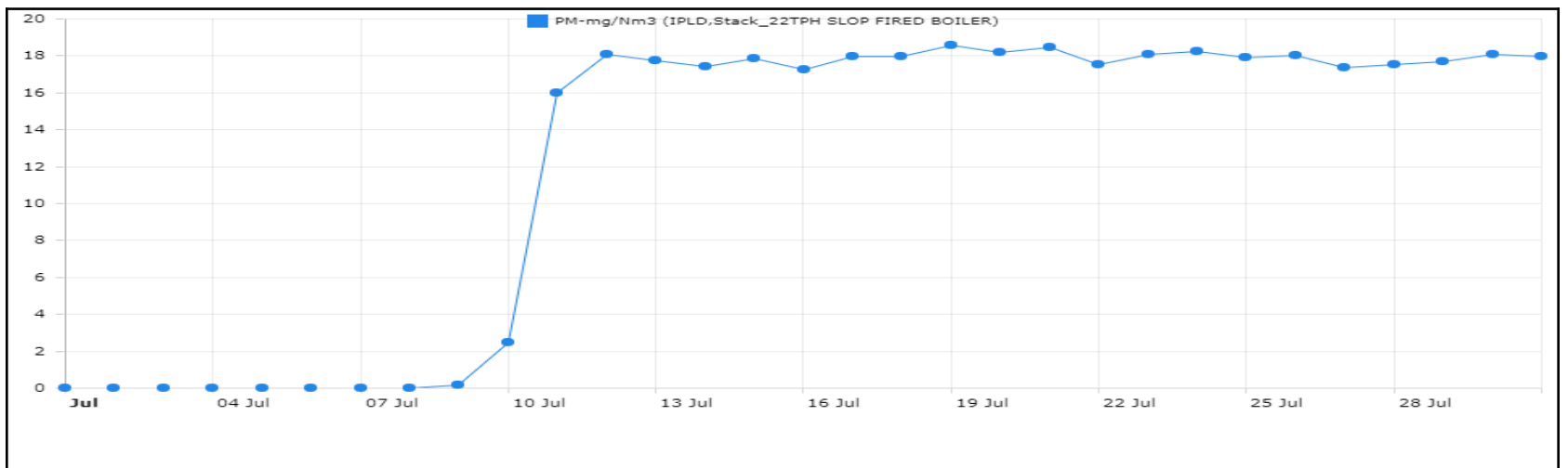
Station: Stack_22TPH SLOP FIRED BOILER

From : 01-07-2023 00:00:00

To : 31-07-2023 23:59:59

Interval : Daily

Function : Average



Flag legends: < - Average with less data, C - Calibration mode, M - Maintenance mode, S - Data under scrutiny, B - Bad data, H - High permissible limit crossed, L - Low permissible limit crossed, P - Processed Data, V - Corrected Data, D - Delayed Data, R- Analyzer drift

| Calender | PM Avg | | | | | |
|---------------------|----------|--|--|--|--|--|
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 01-07-2023 00:00:00 | 0.00 < R | | | | | |
| 02-07-2023 00:00:00 | 0.00 < R | | | | | |
| 03-07-2023 00:00:00 | 0.00 < R | | | | | |
| 04-07-2023 00:00:00 | 0.00 < R | | | | | |
| 05-07-2023 00:00:00 | 0.00 < R | | | | | |

| | | | | | | |
|---------------------|----------|--|--|--|--|--|
| Calender | PM Avg | | | | | |
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 06-07-2023 00:00:00 | 0.00 < R | | | | | |
| 07-07-2023 00:00:00 | 0.00 < R | | | | | |
| 08-07-2023 00:00:00 | 0.01 < R | | | | | |
| 09-07-2023 00:00:00 | 0.17 < R | | | | | |
| 10-07-2023 00:00:00 | 2.46 < R | | | | | |
| 11-07-2023 00:00:00 | 16.00 < | | | | | |
| 12-07-2023 00:00:00 | 18.10 < | | | | | |
| 13-07-2023 00:00:00 | 17.73 < | | | | | |
| 14-07-2023 00:00:00 | 17.40 < | | | | | |
| 15-07-2023 00:00:00 | 17.84 < | | | | | |
| 16-07-2023 00:00:00 | 17.26 < | | | | | |
| 17-07-2023 00:00:00 | 17.96 < | | | | | |
| 18-07-2023 00:00:00 | 17.96 < | | | | | |
| 19-07-2023 00:00:00 | 18.56 < | | | | | |
| 20-07-2023 00:00:00 | 18.19 < | | | | | |
| 21-07-2023 00:00:00 | 18.47 < | | | | | |
| 22-07-2023 00:00:00 | 17.53 < | | | | | |
| 23-07-2023 00:00:00 | 18.05 < | | | | | |
| 24-07-2023 00:00:00 | 18.23 < | | | | | |
| 25-07-2023 00:00:00 | 17.89 < | | | | | |
| 26-07-2023 00:00:00 | 18.02 < | | | | | |
| 27-07-2023 00:00:00 | 17.36 < | | | | | |

| | | | | | | |
|---------------------|---------|--|--|--|--|--|
| Calender | PM Avg | | | | | |
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 28-07-2023 00:00:00 | 17.54 < | | | | | |
| 29-07-2023 00:00:00 | 17.69 < | | | | | |
| 30-07-2023 00:00:00 | 18.10 < | | | | | |
| 31-07-2023 00:00:00 | 17.97 < | | | | | |

Report Summary

| | | | | | | |
|-----------------------|-------|--|--|--|--|--|
| Average | 12.14 | | | | | |
| Maximum | 18.56 | | | | | |
| Minimum | 0.00 | | | | | |
| Std.Deviation | 8.36 | | | | | |
| Geom.Mean | 9.77 | | | | | |
| Median | 17.54 | | | | | |
| Mode | 0.00 | | | | | |
| Total Active Duration | | | | | | |

Forbes Marshall

INDIAN POTASH LIMITED DISTILLERY UNIT

Rohana Kalan, Vilage: Bahedi, P.O.: Rohana Mill, Block-Charthawal, & District: Muzaffarnagar (U.P.) , Pin-251202, MUZAFFARNAGAR,251202, Charthawal, & District: Muzaffarnagar (U.P.) , Pin-251202, MUZAFFARNAGAR,251202,

Station Report

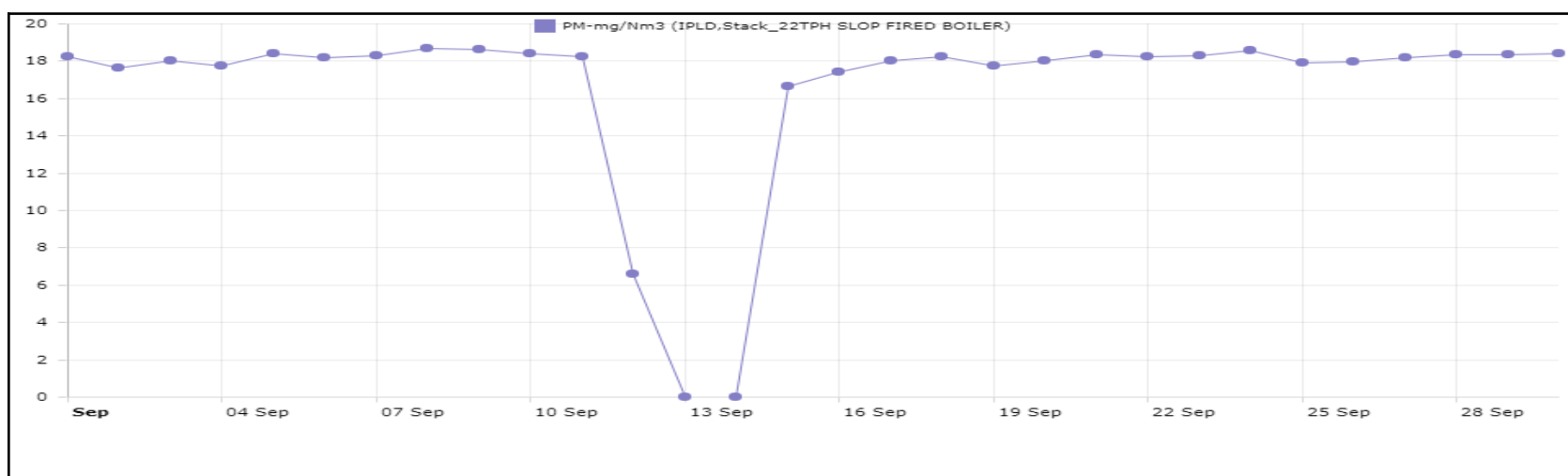
Station: Stack_22TPH SLOP FIRED BOILER

From : 01-08-2023 00:00:00

To : 31-08-2023 23:59:59

Interval : Daily

Function : Average



Flag legends: < - Average with less data, C - Calibration mode, M - Maintenance mode, S - Data under scrutiny, B - Bad data, H - High permissible limit crossed, L - Low permissible limit crossed, P - Processed Data, V - Corrected Data, D - Delayed Data, R - Analyzer drift

| Calender | PM Avg | | | | | |
|---------------------|---------|--|--|--|--|--|
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 01-08-2023 00:00:00 | 17.71 < | | | | | |
| 02-08-2023 00:00:00 | 17.33 < | | | | | |
| 03-08-2023 00:00:00 | 17.84 < | | | | | |
| 04-08-2023 00:00:00 | 18.00 < | | | | | |
| 05-08-2023 00:00:00 | 17.99 < | | | | | |

| | | | | | | |
|---------------------|---------|--|--|--|--|--|
| Calender | PM Avg | | | | | |
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 06-08-2023 00:00:00 | 17.77 < | | | | | |
| 07-08-2023 00:00:00 | 18.03 < | | | | | |
| 08-08-2023 00:00:00 | 17.75 < | | | | | |
| 09-08-2023 00:00:00 | 18.41 < | | | | | |
| 10-08-2023 00:00:00 | 18.03 < | | | | | |
| 11-08-2023 00:00:00 | 17.89 < | | | | | |
| 12-08-2023 00:00:00 | 17.49 < | | | | | |
| 14-08-2023 00:00:00 | 17.84 < | | | | | |
| 15-08-2023 00:00:00 | 17.87 < | | | | | |
| 16-08-2023 00:00:00 | 17.63 < | | | | | |
| 17-08-2023 00:00:00 | 18.25 < | | | | | |
| 18-08-2023 00:00:00 | 18.11 < | | | | | |
| 19-08-2023 00:00:00 | 18.47 < | | | | | |
| 20-08-2023 00:00:00 | 18.42 < | | | | | |
| 21-08-2023 00:00:00 | 18.45 < | | | | | |
| 22-08-2023 00:00:00 | 18.07 < | | | | | |
| 23-08-2023 00:00:00 | 18.09 < | | | | | |
| 24-08-2023 00:00:00 | 18.14 < | | | | | |
| 25-08-2023 00:00:00 | 18.14 < | | | | | |
| 26-08-2023 00:00:00 | 18.33 < | | | | | |
| 27-08-2023 00:00:00 | 18.49 < | | | | | |
| 28-08-2023 00:00:00 | 17.97 < | | | | | |

| | | | | | | |
|---------------------|---------|--|--|--|--|--|
| Calender | PM Avg | | | | | |
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 29-08-2023 00:00:00 | 18.22 < | | | | | |
| 30-08-2023 00:00:00 | 18.53 < | | | | | |
| 31-08-2023 00:00:00 | 18.24 < | | | | | |

Report Summary

| | | | | | | |
|-----------------------|-------|--|--|--|--|--|
| Average | 18.05 | | | | | |
| Maximum | 18.53 | | | | | |
| Minimum | 17.33 | | | | | |
| Std.Deviation | 0.30 | | | | | |
| Geom.Mean | 18.05 | | | | | |
| Median | 18.05 | | | | | |
| Mode | 17.71 | | | | | |
| Total Active Duration | | | | | | |

Forbes Marshall

INDIAN POTASH LIMITED DISTILLERY UNIT

Rohana Kalan, Vilage: Bahedi, P.O.: Rohana Mill, Block-Charthawal, & District: Muzaffarnagar (U.P.) , Pin-251202, MUZAFFARNAGAR,251202, Charthawal, & District: Muzaffarnagar (U.P.) , Pin-251202, MUZAFFARNAGAR,251202,

Station Report

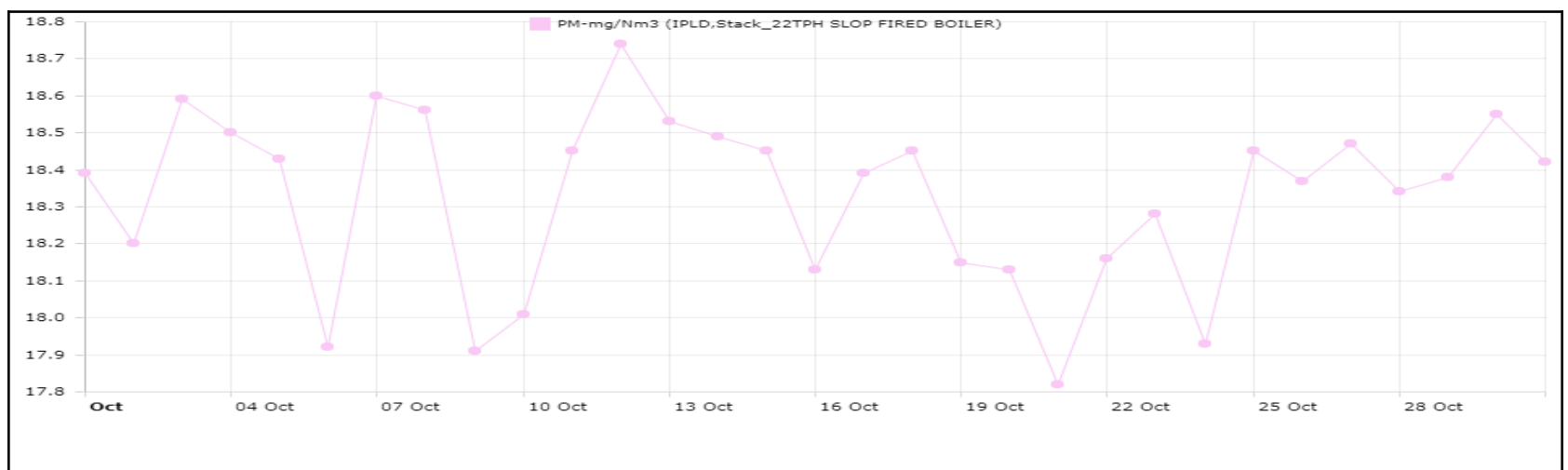
Station: Stack_22TPH SLOP FIRED BOILER

From : 01-09-2023 00:00:00

To : 30-09-2023 23:59:59

Interval : Daily

Function : Average



Flag legends: < - Average with less data, C - Calibration mode, M - Maintenance mode, S - Data under scrutiny, B - Bad data, H - High permissible limit crossed, L - Low permissible limit crossed, P - Processed Data, V - Corrected Data, D - Delayed Data, R - Analyzer drift

| Calender | PM Avg | | | | | |
|---------------------|---------|--|--|--|--|--|
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 01-09-2023 00:00:00 | 18.25 < | | | | | |
| 02-09-2023 00:00:00 | 17.66 < | | | | | |
| 03-09-2023 00:00:00 | 18.02 < | | | | | |
| 04-09-2023 00:00:00 | 17.75 < | | | | | |
| 05-09-2023 00:00:00 | 18.41 < | | | | | |

| | | | | | | |
|---------------------|-----------|--|--|--|--|--|
| Calender | PM Avg | | | | | |
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 06-09-2023 00:00:00 | 18.21 < | | | | | |
| 07-09-2023 00:00:00 | 18.27 < | | | | | |
| 08-09-2023 00:00:00 | 18.69 < | | | | | |
| 09-09-2023 00:00:00 | 18.61 < | | | | | |
| 10-09-2023 00:00:00 | 18.43 < | | | | | |
| 11-09-2023 00:00:00 | 18.25 < | | | | | |
| 12-09-2023 00:00:00 | 6.59 < R | | | | | |
| 13-09-2023 00:00:00 | 0.00 < R | | | | | |
| 14-09-2023 00:00:00 | 0.00 < R | | | | | |
| 15-09-2023 00:00:00 | 16.67 < R | | | | | |
| 16-09-2023 00:00:00 | 17.43 < | | | | | |
| 17-09-2023 00:00:00 | 18.00 < | | | | | |
| 18-09-2023 00:00:00 | 18.24 < | | | | | |
| 19-09-2023 00:00:00 | 17.75 < | | | | | |
| 20-09-2023 00:00:00 | 18.04 < | | | | | |
| 21-09-2023 00:00:00 | 18.33 < | | | | | |
| 22-09-2023 00:00:00 | 18.26 < | | | | | |
| 23-09-2023 00:00:00 | 18.28 < | | | | | |
| 24-09-2023 00:00:00 | 18.58 < | | | | | |
| 25-09-2023 00:00:00 | 17.89 < | | | | | |
| 26-09-2023 00:00:00 | 17.99 < | | | | | |
| 27-09-2023 00:00:00 | 18.20 < | | | | | |

| | | | | | | |
|---------------------|---------|--|--|--|--|--|
| Calender | PM Avg | | | | | |
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 28-09-2023 00:00:00 | 18.36 < | | | | | |
| 29-09-2023 00:00:00 | 18.33 < | | | | | |
| 30-09-2023 00:00:00 | 18.40 < | | | | | |

Report Summary

| | | | | | | |
|-----------------------|-------|--|--|--|--|--|
| Average | 16.53 | | | | | |
| Maximum | 18.69 | | | | | |
| Minimum | 0.00 | | | | | |
| Std.Deviation | 4.98 | | | | | |
| Geom.Mean | 17.47 | | | | | |
| Median | 18.22 | | | | | |
| Mode | 0.00 | | | | | |
| Total Active Duration | | | | | | |

Forbes Marshall

INDIAN POTASH LIMITED DISTILLERY UNIT

Rohana Kalan, Vilage: Bahedi, P.O.: Rohana Mill, Block-Charthawal, & District: Muzaffarnagar (U.P.) , Pin-251202, MUZAFFARNAGAR,251202, Charthawal, & District: Muzaffarnagar (U.P.) , Pin-251202, MUZAFFARNAGAR,251202,

Station Report

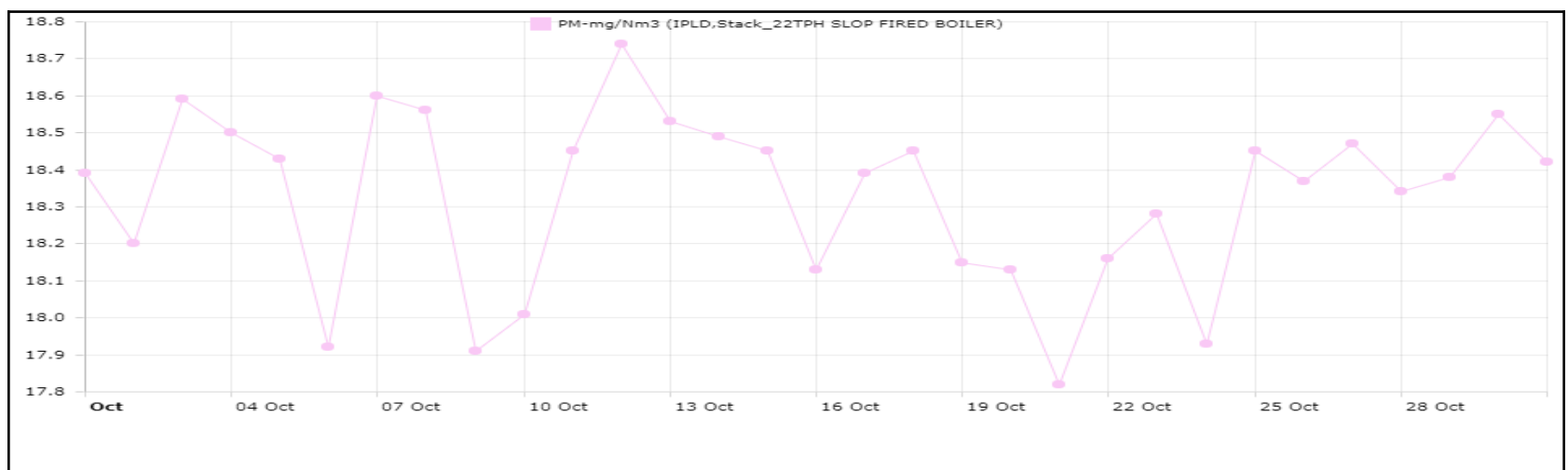
Station: Stack_22TPH SLOP FIRED BOILER

From : 01-10-2023 00:00:00

To : 31-10-2023 23:59:59

Interval : Daily

Function : Average



Flag legends: < - Average with less data, C - Calibration mode, M - Maintenance mode, S - Data under scrutiny, B - Bad data, H - High permissible limit crossed, L - Low permissible limit crossed, P - Processed Data, V - Corrected Data, D - Delayed Data, R - Analyzer drift

| Calender | PM Avg | | | | | |
|---------------------|---------|--|--|--|--|--|
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 01-10-2023 00:00:00 | 18.39 < | | | | | |
| 02-10-2023 00:00:00 | 18.20 < | | | | | |
| 03-10-2023 00:00:00 | 18.59 < | | | | | |
| 04-10-2023 00:00:00 | 18.50 < | | | | | |
| 05-10-2023 00:00:00 | 18.43 < | | | | | |

| | | | | | | |
|---------------------|---------|--|--|--|--|--|
| Calender | PM Avg | | | | | |
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 06-10-2023 00:00:00 | 17.92 < | | | | | |
| 07-10-2023 00:00:00 | 18.60 < | | | | | |
| 08-10-2023 00:00:00 | 18.56 < | | | | | |
| 09-10-2023 00:00:00 | 17.91 < | | | | | |
| 10-10-2023 00:00:00 | 18.01 < | | | | | |
| 11-10-2023 00:00:00 | 18.45 < | | | | | |
| 12-10-2023 00:00:00 | 18.74 < | | | | | |
| 13-10-2023 00:00:00 | 18.53 < | | | | | |
| 14-10-2023 00:00:00 | 18.49 < | | | | | |
| 15-10-2023 00:00:00 | 18.45 < | | | | | |
| 16-10-2023 00:00:00 | 18.13 < | | | | | |
| 17-10-2023 00:00:00 | 18.39 < | | | | | |
| 18-10-2023 00:00:00 | 18.45 < | | | | | |
| 19-10-2023 00:00:00 | 18.15 < | | | | | |
| 20-10-2023 00:00:00 | 18.13 < | | | | | |
| 21-10-2023 00:00:00 | 17.82 < | | | | | |
| 22-10-2023 00:00:00 | 18.16 < | | | | | |
| 23-10-2023 00:00:00 | 18.28 < | | | | | |
| 24-10-2023 00:00:00 | 17.93 < | | | | | |
| 25-10-2023 00:00:00 | 18.45 < | | | | | |
| 26-10-2023 00:00:00 | 18.37 < | | | | | |
| 27-10-2023 00:00:00 | 18.47 < | | | | | |

| | | | | | | |
|---------------------|---------|--|--|--|--|--|
| Calender | PM Avg | | | | | |
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 28-10-2023 00:00:00 | 18.34 < | | | | | |
| 29-10-2023 00:00:00 | 18.38 < | | | | | |
| 30-10-2023 00:00:00 | 18.55 < | | | | | |
| 31-10-2023 00:00:00 | 18.42 < | | | | | |

Report Summary

| | | | | | | |
|-----------------------|-------|--|--|--|--|--|
| Average | 18.33 | | | | | |
| Maximum | 18.74 | | | | | |
| Minimum | 17.82 | | | | | |
| Std.Deviation | 0.23 | | | | | |
| Geom.Mean | 18.33 | | | | | |
| Median | 18.39 | | | | | |
| Mode | 18.50 | | | | | |
| Total Active Duration | | | | | | |

Forbes Marshall

INDIAN POTASH LIMITED DISTILLERY UNIT

Rohana Kalan, Vilage: Bahedi, P.O.: Rohana Mill, Block-Charthawal, & District: Muzaffarnagar (U.P.) , Pin-251202, MUZAFFARNAGAR,251202, Charthawal, & District: Muzaffarnagar (U.P.) , Pin-251202, MUZAFFARNAGAR,251202,

Station Report

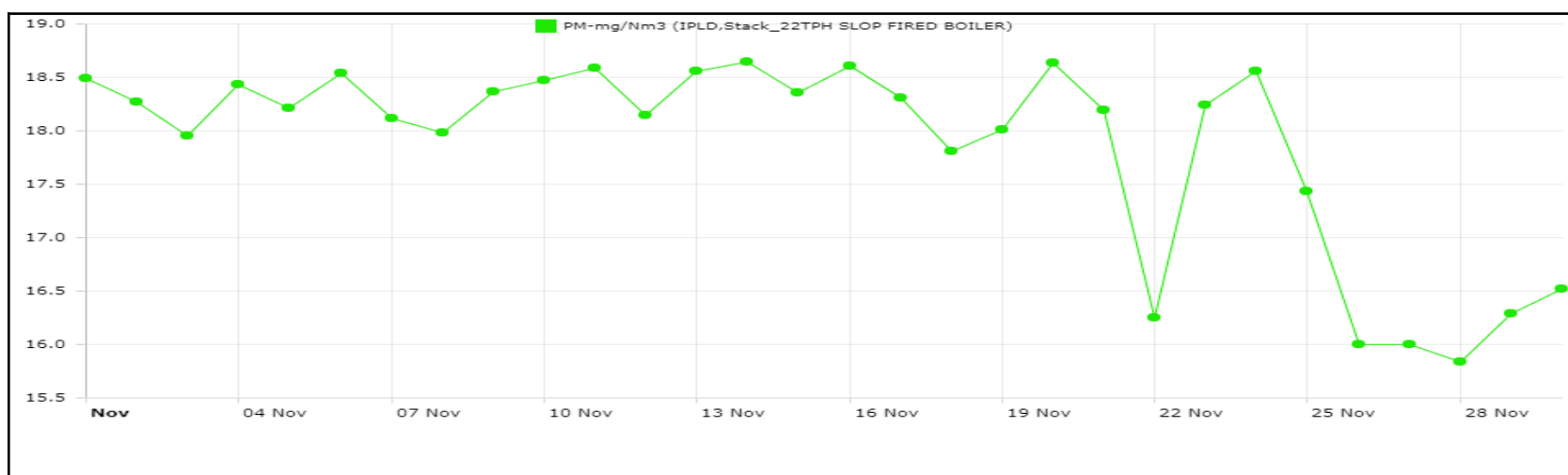
Station: Stack_22TPH SLOP FIRED BOILER

From : 01-11-2023 00:00:00

To : 30-11-2023 23:59:59

Interval : Daily

Function : Average



Flag legends: < - Average with less data, C - Calibration mode, M - Maintenance mode, S - Data under scrutiny, B - Bad data, H - High permissible limit crossed, L - Low permissible limit crossed, P - Processed Data, V - Corrected Data, D - Delayed Data, R - Analyzer drift

| Calender | PM Avg | | | | | |
|---------------------|---------|--|--|--|--|--|
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 01-11-2023 00:00:00 | 18.49 < | | | | | |
| 02-11-2023 00:00:00 | 18.27 < | | | | | |
| 03-11-2023 00:00:00 | 17.95 < | | | | | |
| 04-11-2023 00:00:00 | 18.43 < | | | | | |
| 05-11-2023 00:00:00 | 18.21 < | | | | | |

| | | | | | | |
|---------------------|---------|--|--|--|--|--|
| Calender | PM Avg | | | | | |
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 06-11-2023 00:00:00 | 18.54 < | | | | | |
| 07-11-2023 00:00:00 | 18.12 < | | | | | |
| 08-11-2023 00:00:00 | 17.98 < | | | | | |
| 09-11-2023 00:00:00 | 18.37 < | | | | | |
| 10-11-2023 00:00:00 | 18.47 < | | | | | |
| 11-11-2023 00:00:00 | 18.59 < | | | | | |
| 12-11-2023 00:00:00 | 18.14 < | | | | | |
| 13-11-2023 00:00:00 | 18.56 < | | | | | |
| 14-11-2023 00:00:00 | 18.64 < | | | | | |
| 15-11-2023 00:00:00 | 18.36 < | | | | | |
| 16-11-2023 00:00:00 | 18.61 < | | | | | |
| 17-11-2023 00:00:00 | 18.31 < | | | | | |
| 18-11-2023 00:00:00 | 17.81 < | | | | | |
| 19-11-2023 00:00:00 | 18.01 < | | | | | |
| 20-11-2023 00:00:00 | 18.63 < | | | | | |
| 21-11-2023 00:00:00 | 18.19 < | | | | | |
| 22-11-2023 00:00:00 | 16.25 < | | | | | |
| 23-11-2023 00:00:00 | 18.24 < | | | | | |
| 24-11-2023 00:00:00 | 18.56 < | | | | | |
| 25-11-2023 00:00:00 | 17.43 < | | | | | |
| 26-11-2023 00:00:00 | 16.00 < | | | | | |
| 27-11-2023 00:00:00 | 16.00 < | | | | | |

| | | | | | | |
|---------------------|---------|--|--|--|--|--|
| Calender | PM Avg | | | | | |
| Units | mg/Nm3 | | | | | |
| Range | 0 - 150 | | | | | |
| 28-11-2023 00:00:00 | 15.84 < | | | | | |
| 29-11-2023 00:00:00 | 16.29 < | | | | | |
| 30-11-2023 00:00:00 | 16.52 < | | | | | |

Report Summary

| | | | | | | |
|-----------------------|-------|--|--|--|--|--|
| Average | 17.86 | | | | | |
| Maximum | 18.64 | | | | | |
| Minimum | 15.84 | | | | | |
| Std.Deviation | 0.92 | | | | | |
| Geom.Mean | 17.84 | | | | | |
| Median | 18.23 | | | | | |
| Mode | 18.21 | | | | | |
| Total Active Duration | | | | | | |



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

Form 8 (C)

[See Rule 8(1)]

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

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

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC019222

VALID FROM 19/11/2022 TO 18/11/2027

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

| | | | |
|--|--|---|---|
| Registration No.: 202211000294 | | | |
| Name of the Owner | RAKESH KUMAR | | |
| Designation पद | MANAGER HR & LEGAL | Company Name कंपनी का नाम | M/s INDIAN POTASH LIMITED DISTILLERY UNIT |
| Company Address कंपनी का पता | ROHANA KALAN,VILL. BAHEDI,MUZAFFARNAGAR | Authorization Letter प्राधिकार पत्र | Download |
| Address of the Applicant | Rohana Kalan, Vill. Bahedi, P.O. Rohana Mill, Block Charthawal , Muzaffarnagar U.P. | Application No. | MZFN1122NIN0141 |
| Date of Submission | 10/11/2022 | Specimen Signature | |
| Location Particulars | | | |
| District | Muzaffar Nagar | Block | CHARRTHAVAL |
| Plot No./Khasra No. | ROHANA KALAN,VILL. BAHEDI,MUZAFFARNAGAR | Municipality/Corporation | No |
| Ward No./Holding No. | | | N/A |
| Particular of the Proposed Well and Pumping Device | | | |
| Date of Construction/Sinking of the Well | 22/11/2022 | | |
| Type of Well | Tube Well/Boring | Depth of the Well (In meter) | 120.00 |
| Purpose of well | Industrial | Assembly Size(For Tube Well) | |
| Strainer Position (For Tube Well) | | | |
| Type of Pump Used | Submersible | H.P. of the Pump | 15.00 |
| Operational Device | Electric Motor | Rate of Withdrawal (m³/hr.) | 50.00 |
| Date of Energization (In Case of Electric Pump) | | 28/11/2022 | |
| Maximum Allowable Rate of Withdrawal (m³/hr.): | 50.00 | Maximum Allowable Running Hours Per Day: | 6.00 |
| Maximum Allowable Annual Extraction of Ground Water: | 105000 | Recharge Required | 52500.00 |

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 52500.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

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

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

- The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4” to 6”.
 - The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
 - No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:
- | S.No | Quantum of Ground water withdrawal (cum/day) | No.of piezometers required | Monitoring Mechanism | |
|------|--|----------------------------|----------------------|---------------------|
| | | | Manual | DWLR with Telemetry |
| 1 | < 10 | 0 | 0 | 0 |
| 2 | 11 - 50 | 1 | 1 | 0 |
| 3 | 50- 500 | 1 | 0 | 1 |
| 4 | > 500 | 2 | 0 | 2 |
- The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
 - For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
 - The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
 - All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.
 - The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
 - A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
 - Any other site specific requirement regarding safety and access for measurement may be taken care of.
 - Any other condition(s) that may be imposed by the concerned Authority.
 - In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
 -

SPECIFIC CONDITIONS:

- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:

- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m³/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m³ /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
 - i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
 - ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m³ /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :27/11/2022

Place:Muzaffar Nagar

This certificate is electronically generated and does not require digital signature



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

Form 8 (C)

[See Rule 8(1)]

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

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

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC029021

VALID FROM 19/11/2022 TO 18/11/2027

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

| | | | |
|--|--|---|---|
| Registration No.: 202211000293 | | | |
| Name of the Owner | RAKESH KUMAR | | |
| Designation पद | MANAGER HR & LEGAL | Company Name कंपनी का नाम | M/s INDIAN POTASH LIMITED DISTILLERY UNIT |
| Company Address कंपनी का पता | ROHANA KALAN,VILL. BAHEDI,MUZAFFARNAGAR | Authorization Letter प्राधिकार पत्र | Download |
| Address of the Applicant | Rohana Kalan, Vill. Bahedi, P.O. Rohana Mill, Block Charthawal , Muzaffarnagar U.P. | Application No. | MZFN1122NIN0140 |
| Date of Submission | 10/11/2022 | Specimen Signature | |
| Location Particulars | | | |
| District | Muzaffar Nagar | Block | CHARRTHAVAL |
| Plot No./Khasra No. | ROHANA KALAN,VILL. BAHEDI,MUZAFFARNAGAR | Municipality/Corporation | No |
| Ward No./Holding No. | | | N/A |
| Particular of the Proposed Well and Pumping Device | | | |
| Date of Construction/Sinking of the Well | 20/11/2022 | | |
| Type of Well | Tube Well/Boring | Depth of the Well (In meter) | 120.00 |
| Purpose of well | Industrial | Assembly Size(For Tube Well) | |
| Strainer Position (For Tube Well) | | | |
| Type of Pump Used | Submersible | H.P. of the Pump | 15.00 |
| Operational Device | Electric Motor | Rate of Withdrawal (m³/hr.) | 50.00 |
| Date of Energization (In Case of Electric Pump) | | 27/11/2022 | |
| Maximum Allowable Rate of Withdrawal (m³/hr.): | 50.00 | Maximum Allowable Running Hours Per Day: | 6.00 |
| Maximum Allowable Annual Extraction of Ground Water: | 105000 | Recharge Required | 52500.00 |

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 52500.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

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

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

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

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

- The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
- For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
- All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.
- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.
- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-

SPECIFIC CONDITIONS:

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 - ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m³ /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :01/12/2022

Place:Muzaffar Nagar

This certificate is electronically generated and does not require digital signature

Photographs of Chemical Handling Training



INDIAN POTASH LIMITED, DISTILLERY UNIT ROHANA KALAN
MUZAFFARNAGAR
DISTILLERY PERMANENT EMPLOYEES LIST

| S.No. | Employee's Name | Father's Name | Designation | D.O.B | D.O.J. | Address |
|-------|---------------------------|--------------------------|---------------------------------------|------------|------------|---|
| 1 | Mr. Ramesh Kumar Sharma | Dr. Shyam Kumar Sharma | General Manager | 30-06-1972 | 17-12-2021 | B 45, AKSHARDHAM COLONY ROORKEE ROAD MODIPURAM, MAWANA, MEERUT 250110 |
| 2 | Mr. Dileep Kumar Kushwaha | Shri Lakshman Kushwaha | Manager(Distillery) | 08-10-1986 | 22-08-2022 | Village Raaghunathpur, Post- Kothlawa, Distt. Deoria(U.P) |
| 3 | Mr. Rakesh Kumar | Shri Shambhu Dayan | Manager(HR & Legal) | 02-05-1965 | 25-06-2017 | Meerut |
| 4 | Mr. Tarun Kumar Gaur | | Dy. Manager(A/c) | 30-06-1975 | 10-10-2014 | 55 Gagan Enclave, Rothera Road, Meerut City |
| 5 | Mr. Mohit Kumar | Shri Chandravir Singh | Sr. Officer(Safety & Environment) | 01-07-1986 | 01-06-2021 | VPO Dhindhawali, Post- Titawi, Distt.- Muzaaffarnagar 251318 |
| 6 | Mr. Kapil Dixit | Shri Sadhan Lal Dixit | Asstt. Officer(Distillery) | 15-08-1982 | 01-09-2022 | Gopinath Puram Shukla Ganj, Distt. Unnao |
| 7 | Mr. Sataveer Singh | Shri Kalwa Singh | Shift Incharge | 08-08-1979 | 26-11-2022 | 294, VILLAGE & POST- NAGAL SOTI, JALPUR, BUNOR 246732 |
| 8 | Mr. Waseem Ahmad | Mohd Mohsin | Mechanical Maintenance I/c | 03-05-1992 | 22-11-2021 | 549, BHOOT KHANA, BHULLANSHAH, DEOBAND, SAHARANPUR 247554 |
| 9 | Mr. Manoj Kumar | Shri Jai Singh | Instrumentation Maintenance I/c | 01-10-1976 | 26-11-2021 | VILL & POST- LISARH, SHAMU 247776 |
| 10 | Mr. Vivek Pal | Shri Brahmopal Singh | Instrument Mechanic | 21-07-1987 | 26-11-2021 | 12, VILLAGE DAURALA, DAYANANDPURI DAURALA, MEERUT 250221 |
| 11 | Mr. Raushan Kumar | Shri Sudhakar Jha | Distillation Operator | 04-05-1991 | 30-11-2021 | MITHLA NIWAS SUDAMA PATH, INDRA NAGAR ROAD NO. 1 ROAD, PATNA GPO, PATNA 800001 |
| 12 | Mr. Rajeev Kumar | Shri Ashok Kumar | Lab Chemist | 25-04-1978 | 07-12-2021 | Village & Post- Chokra, Distt. Muzaaffarnagar(U.P. |
| 13 | Mr. Prateek Tyagi | Shri Chandras Tyagi | Shift Incharge | 29-09-1991 | 09-12-2021 | 457, SWAGR ASHRAM ROAD, KOTHI SADAK ALI, RAMRAI PLACE, RAINAGAR, HAPUR 245101 |
| 14 | Mr. Anuj Kumar | Shri Raghnunath Singh | Officer (Ethanol Sales) | 12-07-1992 | 17-01-2022 | Village- Murtaipur Bulaki Urf Peda, Bijnor 246701 |
| 15 | Mr. Vishvajet Tyagi | Shri Tazendra Tyagi | Junior Officer(Store) | 02-12-1994 | 01-02-2022 | VIII & Post- Baheri, Muzaaffarnagar 251202 |
| 16 | Mr. Vivek Kumar Sharma | Shri Virendra Sharma | Electrical Incharge | 19-05-1992 | 10-02-2022 | |
| 17 | Mr. Shubham Agarwal | Shri Pawan Kumar Agarwal | Warehouse/Office Asstt. | 01-08-1992 | 04-02-2022 | Mohalla- Brahmanan, Shiv Chowk, Bijnor 246701 |
| 18 | Mr. Shahzad Ahmadi | Shri Meeru Hasan | Distillation Operator | 08-08-1986 | 01-03-2022 | Niralsi Urf Kadargah, Shamli 247772 |
| 19 | Mr. Manoj Kumar | Shri Bharam Singh | Evaporation Operator | 01-03-1975 | 02-03-2022 | Ring Road Almaspur, Muzaaffarnagar 251001 |
| 20 | Mr. Mohit Kumar | Shri Om Prakash | Distillation Operator | 13-11-1989 | 04-03-2022 | 187, Ghanu, Un, Shamli 247778 |
| 21 | Mr. Dinesh Kumar | Shri Dimank Singh | Distillation Cum Evaporation Operator | 07-02-1988 | 04-03-2022 | 268, Village- Tejalhera, Muzaaffarnagar 251310 |
| 22 | Mr. Rajendra Pal | Shri Ram Singh | Permentation Operator | 01-08-1970 | 10-03-2022 | Sikanderpur Kalan, Muzaaffarnagar 251201 |

Ramesh Kumar Sharma
General Manager

Dr. V.S. BENIWAL
Sr. Medical Officer

INDIAN POTASH LTD.
(Distillery Unit)

Rohana Kalan, Muzaaffarnagar (U.P.)

Reg. No. 30938

जिला अधिकारी अफिसरी
मुजाफरनगर

जय आनंदकारी आयुक्त

पहिले तहसिलदार, मुजाफरनगर
24-04-2023





| | | | | | | |
|----|-------------------------|---------------------------|------------------------------|------------|------------|--|
| 23 | Mr. Ahsaan Ahmad | Shri Niyaz Ahmad Ansari | Electrician | 30-06-1993 | 14-03-2022 | 9, Sisai, PO Belha, Balrampur 271201 |
| 24 | Mr. Mohit Kumar | Shri Satpal | Instrument Technician | 10-04-1992 | 14-03-2022 | Village Rahmatpur, Post-Bhopa, Muzaffarnagar 251308 |
| 25 | Mr. Dinesh Kumar | Shri Jasveer Singh | IBR Welder Cum Fitter | 10-10-1978 | 14-03-2022 | Village & Post-Banat Muhalla Partap Nagar, Shamli 251308 |
| 26 | Mr. Lokesh Kumar | Shri Pundev | Electrician | 01-06-1987 | 15-03-2022 | 109, Shekhpura, Khatauli 251201 |
| 27 | Mr. Vineet Kumar | Shri Kamendra Singh | Fermentation Operator | 20-08-1990 | 15-03-2022 | h. no. 266, Bhovapur Mastan Nagar, Simbhaoli Spirits Ltd., Ghazibad 245207 |
| 28 | Mr. Mohit Gaur | Shri Omvir Singh | Decanter Operator | 08-07-1993 | 15-03-2022 | Village & Post Meerpur, Meerut 250502 |
| 29 | Mr. Bikul Kumar | Shri Ratnapal Singh | Fermentation Operator | 01-05-1987 | 17-03-2022 | Village & Post-Jangathi, Meerut 250341 |
| 30 | Mr. Sandeep Kumar | Late Shri Raj Kumar | Instrument Technician | 24-07-1987 | 21-03-2022 | Village & Post-Adarsh Colony, Noorpur, Deoband 247554 |
| 31 | Mr. Amit Kumar | Shri Udayvir Singh | Shift Incharge | 05-09-1986 | 21-03-2022 | Village & Post- Mukandpur, Muzaffarnagar 251306 |
| 32 | Mr. Steendra Kumar | Shri Rajvir Singh | Dy. Manager(Warehouse) | 01-05-1979 | 21-03-2022 | Vill & Post-Lank, Shamli 24776 |
| 33 | Mr. Pramod Kumar | Shri Mangaram | Fitter | 20-09-1980 | 21-03-2022 | House No. 1181, Adersh Colony Tower Wali Gali, Muzaffarnagar 251001 |
| 34 | Mr. Harminder Singh | Shri Baljor Singh | WTP/PCP Operator | 02-02-1980 | 21-03-2022 | Vill. Mahablipur, Post Chauthwal, Muzaffarnagar 251311 |
| 35 | Mr. Vipin Kumar Kashyap | Shri Krishanpal | Lab Chemist | 20-08-1987 | 11-04-2022 | Ho. No. 791/26/08 Rampur, Muzaffarnagar 251311 |
| 36 | Mr. Sachin Singh | Late Shri Satyavir Singh | Jr. Engineer Instrumentation | 18-03-1984 | 19-05-2022 | B 990 DYMIG Flats East of Loni Road Mandoli North East |
| 37 | Mr. Arvind Kumar | Shri Rajpal Singh | Fitter | 05-03-1982 | 01-11-2022 | Village & Post Lankh, Distt. Shamli (U.P.) |
| 38 | Mr. Rahul Yadav | Shri. Salikram Yadav | Accountant | 02-05-1991 | 12-03-2021 | N.No. 17 Winsor Place Near Lee Meridian Hotel, New Delhi 11000 |
| 39 | Mr. Devansh Kaushik | Shri. Suresh Chand Sharma | Store Clerk | 15-02-1989 | 06-01-2021 | Vill & Post- Sisauli, Muzaffarnagar 251319 |
| 40 | Mr. Karanveer Singh | Shri. Bhonda Singh | Fitter | 10-01-1980 | 11-03-2022 | Village Kamal Nagar, Kukra, Muzaffarnagar 251001 |
| 41 | Mr. Abhishek Kumar | Shri. Brijesh Kumar | Fermentation Optt. | 26-06-1996 | 09-03-2022 | Village Malakpur Post- Baghat, Distt. Bagpat 250611 |
| 42 | Mr. Kapil Kumar Vaidwan | Shri. Mahesh Kumar | SBA | 10-08-1992 | 01-04-2022 | |
| 43 | Mr. Anuj Kumar | Shri. Mahendra Singh | Ware House Optt. | 05-10-1988 | 01-04-2022 | 752/2, Saket Colony, Muzaffarnagar |
| 44 | Mr. Rohit Kumar Sharma | Shri. Adesh Sharma | Trinee Lab Chemist | 19-01-1999 | 10-05-2022 | Shiv Vihar Colony Deoband, Saharanpur, U.P. |
| 45 | Mr. Amit Tomer | Shri. Sahdev Tomer | Accountant | 11-07-1993 | 20-05-2022 | Ho. No.-77A Shivpuram, Paniyala Road Raheempur Roorkee-247667 |
| 46 | Mr. Sokindra Pal | Shri. Nahar Singh | Head Fitter | 05-06-1974 | 25-11-2021 | Village Mundbhar, Shamli |
| 47 | Mr. Himanshu Parasr | Shri. Ravindra Sharma | Decanter Optt. | 05-06-2000 | 07-05-2022 | Bhuma Road, New Basti Kaithora, Mirapur Jansath, Muzaffarnagar |
| 48 | Mr. Gajendra Yadav | Shri. Ram Avtar | Store Boy | 03-06-1986 | 15-12-2010 | 09, Krishna Bihar Colony, Tundla, Firozabad, Tundla (U.P.) |
| 49 | Mr. Pardeep Kumar | Shri. Ramkishan Sharma | C.S.O | 15-02-1983 | | Village Nanhera Khurd, Post- Bahera, Saharanpur (U.P.) |
| 50 | Mr. Amit Kumar | Shri. Chandra Pal Singh | Electrician | 07-03-1978 | 27-10-2022 | Bacchan Singh Colony Gali No. 2, Muzaffarnagar |
| 51 | Mr. Manoj Kumar | Shri. Mangal | Electrician | 01-01-1984 | 06-12-2022 | Village-Jandhi, Muzaffarnagar |
| 52 | Mr. Ram Kishan Yadav | Shri. Shanker Yadav | Dreasher | 25-06-1988 | 15-12-2010 | Rohana Sugar Mill Colony, Muzaffarnagar |

Ramesh Kumar Sharma
Manager
ASH LTD.
(Marketing Unit)
Muzaffarnagar (U.P.)

Dr. V.S. BENIWAL
Sr. Medical Officer
IPL Rohana Kahan
Reg No. 30938

विधि सहायता से

31/12/21

24-04-2023

24-04-2023



Ramesh Kumar Sharma
General Manager
INDIAN FOTASH LTD.
(Distillery Unit)
Rohana Kalan, Muzaffarnagar (U.P.)

Dr. V.S. BENIWAL
Sr. Medical Officer
IPL Rohana Kalan
Reg. No. 30938

गुप्त सुरक्षा
गोपनीयता

| Sl. No. | Name (S/Shri) | Father's name (S/Shri) | DOB | DOJ | Designation | Address |
|---------|----------------------|------------------------|------------|------------|----------------------|--|
| 1 | Pradeep Kumar Sharma | Ram Kishan Sharma | 15.02.1983 | 01.03.2020 | Sr. Security Officer | V & PO - Nanhed, Khurd, Post. Bahera, Distt. Saharanpur (UP) |
| 2 | Bhupendra Singh | Kirpal Singh | 01.05.1977 | 16.11.2022 | Security Supervisor | V & PO - Rankhandi, Distt. Saharanpur (UP) |
| 3 | Anuj Balyan | Satvir Singh | 08.03.1976 | 01.10.2022 | Security Supervisor | V & PO - Shoran, Distt. Muzaffarnagar (UP) |
| 4 | Udai Manu | Indrapal Singh | 15.03.1981 | 24.01.2022 | Security Supervisor | V & PO - Barwala, Distt. Muzaffarnagar (UP) |
| 5 | Mukesh Kumar | Tellu Ram | 01.01.1988 | 01.10.2022 | Security Guard | V & PO - Rasulpur, Distt. Saharanpur (UP) |
| 6 | Satish Kumar | Balbira | 01.01.1980 | 01.11.2021 | Security Guard | V & PO - Badhai Kila - Distt. Muzaffarnagar (UP) |
| 7 | Netarpal Singh | Jag Roshan | 21.09.1989 | 08.02.2019 | Security Guard | V & PO - Rankhandi, Distt. Saharanpur (UP) |
| 8 | Ajay Sharma | Jainand | 12.12.1971 | 24.03.2023 | Security Guard | VIII. & PO - Dehchind, Distt. Muzaffarnagar (UP) |
| 9 | Dheeraj Kumar | Ranbir Singh | 17.12.1983 | 26.11.2022 | Security Guard | V & PO - Rankhan II, Distt. Saharanpur (UP) |
| 10 | Pankaj Kumar | Nakul Singh | 25.12.1986 | 16.02.2020 | Security Guard | V & PO - Rankhandi, Distt. Saharanpur (UP) |
| 11 | Juli Fakkar | Akhtar | 01.01.1990 | 25.03.2023 | Security Guard | V & PO - Jadauda Iatt, Distt. Saharanpur (UP) |
| 12 | Shubham Gondwal | Ramkishan | 10.06.1994 | 08.07.2022 | Security Guard | V & PO, Thamana Majra, Rankhandi, Saharanpur (UP) |
| 13 | Puran Singh | Brahampal | 10.02.1995 | 26.03.2023 | Security Guard | V & PO - Salnpur, Distt. Muzaffarnagar (UP) |
| 14 | Sandeep Sharma | Shiv dutt Sharma | 01.01.1973 | 27.01.2023 | Security Guard | V & PO - Akhlor, Distt. Muzaffarnagar (UP) |
| 15 | Rajneesh Sharma | Jagdish Prashad | 01.07.1980 | 05.12.2022 | Security Guard | Police Line, Muzaffarnagar (UP) |
| 16 | Monish Sharma | Titu Sharma | 20.01.1994 | 28.02.2023 | Security Guard | V & PO - Bashi Kalan, Distt. Muzaffarnagar |
| 17 | Dheeraj Kumar | Suresh Chand | 03.08.1983 | 01.03.2023 | Security Guard | V & PO - Rohana Kalan, Distt. Muzaffarnagar |
| 18 | Jagatsingh | Rajpal Singh | 01.01.1970 | 27.06.2012 | Security Guard | V & PO - Badhai Ka - Distt. Muzaffarnagar (UP) |
| 19 | Ankit Kumar | Charan Singh | 16.07.1986 | 20.03.2020 | Security Guard | V & PO - Rohana Kalan, Distt. Muzaffarnagar |

Distillery Unit Gangotri Manpower Details Joc & Casual

| S. No. | NAME | Father's Name | DESIGNATION | DOJ | DOB | Address |
|--------|-------------------|-------------------|------------------------|------------|-------------|-------------------------------------|
| 1 | Gagan Agarwal | Devendra Agarwal | Peon | 3-2-2022 | 23-2-1998 | 45/51, Mehtan Near Sangeeta Talkies |
| 2 | Ankush Kumar | Sudeshpal | Lab Boy | 27-05-2022 | 4-12-2000 | Tejalhera |
| 3 | Subham Kumar | Vijay Pal | Mali | 01-12-2021 | 01-01-1998 | Bagumpur, Bagumpur |
| 4 | Sushil Kumar | Mahendra | Mali | 10-8-2020 | 1-1-1988 | BADHI WALA |
| 5 | Rishiraj | Phool Singh | Mali | 4-6-2022 | 1-1-1974 | Barkali |
| 6 | Suresh | Lilla | Sweeper | 8-5-2021 | 1-1-1979 | KUTESHRA |
| 7 | Manoj Kumar | Ilam Chand | Sweeper | 17-6-2020 | 01-Jan-1984 | BAHERI |
| 8 | Rustam Singh | Feru Singh | Sweeper | 27-05-2022 | 1-5-1990 | Bannagar |
| 9 | Sumit Kumar | Ravindra Kr. | Mali | 01-11-2022 | 01-Jul-2002 | Tajpur |
| 10 | Vipin Kumar | Mukesh Kumar | Peon | 9-12-2021 | 4-6-1999 | Asadpur Deoband |
| 11 | Shubham Kumar | Ravindra Kr. | Sweeper | 15-9-2021 | 4-7-1996 | Tajpur |
| 12 | Arjun Bhardwaj | Sanjeev Bhardwaj | ME Optt | 7-1-2023 | 15-10-2000 | Vill Taharpur |
| 13 | Sandeep Kumar | Mahaveer | Driver | 11-04-2022 | 02-02-1990 | MUZAFFARNAGAR |
| 14 | Gaurav Sharma | Ghyan Prakash Sh. | Clerk | 20-12-2021 | 01-09-1977 | Gaziabad |
| 15 | Prasant | Pahal Singh | Dm Plant oppt. | 12-03-2021 | 15-10-1997 | HARIDWAR |
| 16 | Ummed Singh | Krishan Kumar | Dm Plant oppt. | 21-05-2021 | 05-01-1995 | MUZAFFARNAGAR |
| 17 | Chander Shekhar | Bharampal Singh | Fitter | 11-03-2022 | 01-07-1978 | MUZAFFARNAGAR |
| 18 | Akshay Kumar | Bhopal | Fitter Helper | 01-04-2022 | 30-08-1990 | Muzaffarnagar |
| 19 | Abhishek Sharma | Dharmendra Kumar | Fitter Helper | 13-04-2022 | 21-12-1992 | Muzaffarnagar |
| 20 | Aayush Tyagi | Pravesh Tyagi | Fitter Hel | 30-03-2022 | 21-01-1998 | Muzaffarnagar |
| 21 | Bitu | Bablu | Fitter | 01-06-2017 | 05-08-1994 | Muzaffarnagar |
| 22 | Vipin Kumar | Mukesh Kumar | Fitter Helper | 28-04-2022 | 01-01-1986 | Muzaffarnagar |
| 23 | Tusar Tyagi | Dushyant | Decenter Hel | 02-05-2022 | 24-10-2002 | Saharanpur |
| 24 | Pradeep Kumar | Laxmi Chand | Disillation Plant Hel. | 22-06-2022 | 01-12-1981 | Muzaffarnagar |
| 25 | Raj Kumar | Tejpal Singh | Helper | 16-07-2022 | 02-06-2004 | Bijnor |
| 26 | Manoj Kumar | Mange Ram | Helper | 07-05-2022 | 25-12-1998 | Muzaffarnagar |
| 27 | Hariom Sharma | Janeshwar | Helper | 16-06-2022 | 10-08-1987 | Muzaffarnagar |
| 28 | Ankur Kumar | Rajpal Singh | SBA (Helper) | 27-06-2022 | 19-06-1996 | Saharanpur |
| 29 | Deepak Kr. Panwar | Ravindra Kumar | SBA (Helper) | 24-03-2022 | 12-05-1997 | Muzaffarnagar |
| 30 | Arpit Tyagi | Arvind Kumar | Mee Plant . Helper | 06-07-2022 | 10-11-2001 | Muzaffarnagar |
| 31 | Akshay Sharma | Puran Sharma | CPU Plant Helper | 01-06-2022 | 06-10-1976 | Muzaffarnagar |

For GANGOTRI MANPOWER & SECURITY AGENCY

Authorised Signatory

Ramesh Kumar Sharma
General Manager
INDIAN FERTILISERS LTD.
(Distillery Unit)
Rohana Kalan, Muzaffarnagar (U.P.)

Dr. V.S. BENIWA
Sr. Medical Officer
IPL Rohana Kalan
Reg. No. 30938

जिला अधिकारी अधिकारी
मुजफ्फरनगर।



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|----|--------------------|-------------------|---------------------|------------|------------|---------------|
| 32 | Divyansh | Manoj Kumar | CPU Opt | 24-03-2022 | 04-06-1995 | Muzaffarnagar |
| 33 | Sachin Sharma | Mahendra Singh | Fermentation Helper | 28-04-2022 | 30-12-1998 | Muzaffarnagar |
| 34 | Sawan Tyagi | Arvind | Fermentation Helper | 02-05-2022 | 20-10-1997 | Muzaffarnagar |
| 35 | Vikash Kumar Gupta | Sushael Kr. Gupta | Fermentation Helper | 24-03-2022 | 14-01-1996 | Pratapgarh |
| 36 | Aman Shukla | Rajesh Shukla | Weighment Clerk | 28-04-2022 | 11-11-1998 | Agra, Up |
| 37 | Harsh Kumar | Devendra | Weighment Clerk | 28-04-2022 | 01-01-2001 | Muzaffarnagar |
| 38 | Manish Bailyan | Upendra Singh | Weighment Clerk | 17-05-2022 | 23-02-1998 | Muzaffarnagar |
| 39 | Aijun Singh | Ravindra Singh | Dm Plant Cpu Hel. | 08-08-2022 | 06-04-1993 | Muzaffarnagar |
| 40 | Dravesh Kumar | Narendar Kumar | Purchase Clerk | 08-11-2021 | 15-08-1989 | Muzaffarnagar |
| 41 | Ankit Kumar | Surendra | ME Opt Hel. | 01-09-2022 | 28-07-1999 | Saharanpur |
| 42 | Prashant | Brjveer Singh | Weighment Clerk | 26-09-2022 | 10-01-1990 | Muzaffarnagar |
| 43 | Ashok Kumar Tyagi | S.S Tyagi | PS | | | |
| 44 | Sunil Kumar | Khilari Singh | Lab Boy | 11-11-2022 | 05-08-1979 | Saharanpur |
| 45 | Pankaj Sharma | Rajbir Sharma | HR Clerk | 10-10-2010 | 15-04-1985 | Muzaffarnagar |

For CANNOSTRYA POWER &
SECURITY AGENCY

Authorized Signatory

Ramesh Kumar Sharma
General Manager
INDIAN FERTILISHER LTD.
(Distillery Unit)
Rohana Kalan, Muzaffarnagar (U.P.)

Dr. V.S. BENIVAL
Sr. Medical Officer
IPL Rohana Kalan
Reg. No. 30938


जिला आरक्षक अधिकारी
मुजफ्फरनगर।

Date: 20.10.2023

TO WHOM SO EVER IT MAY CONCERN

This is to certify that I have examined 52 (Fifty Two) employees of M/s Indian Potash Ltd. Distillery Unit, Rohana Kalan, Distt-Muzaffarnagar (U.P.) and found them mentally and physically fit without any contagious disease.

List of examined employees for the year 2023-2024 in enclosed.



Dr. V.S. BENIWAL
Sr. Medical Officer
IPL Rohana Kalan
Reg. No. 30938

Date: 20.10.2023

TO WHOM SO EVER IT MAY CONCERN

This is to certify that I have examined 64 (Sixty Four) contract labour of M/s Indian Potash Ltd. Distillery Unit, Rohana Kalan, Distt-Muzaffarnagar (U.P.) and found them mentally and physically fit without any contagious disease.

List of examined employees for the year 2023-2024 in enclosed.



Dr. V.S. BENIWAL
Sr. Medical Officer
IPL Rohana Kalan
Reg. No. 30938

INDIAN POTASH LIMITED

BIO-REFINERY, ROHANA KALAN, MUZAFFARNAGAR

Safety, Health and Environment Policy

Indian Potash Limited (Distillery Unit) Rohana Kalan, Muzaffarnagar considers the Health, Safety and Welfare of its employees and the Environment to be of prime importance to the company, essential to the operation of its undertaking and management responsibility of equal importance to other aspects of the business e.g., production and quality. As a result, the company is committed to achieving the highest standards of Health, Safety and Environment for all employees and other who may be affected by our Activities e.g., customers, contractors, visitors and public.

This is achieved by:

- Ensuring that all hazards and risk are identified and properly controlled so that employees and other can be protected from danger and ensuring that injury and ill health are prevented.
- Providing adequate financial and physical resources to support the full implementation of the policy.
- Ensuring that all person is competent to carry out the duties asked to them, providing information, instructions, supervision, training as per required.
- Consulting all employees, safety representative and subcontractors in the development of our policy and encouraging them to participate in and contribute to improvement in the working environment.
- As a minimum standard, monitoring, reviewing and complying health, safety and pollution control legislation, regulation and other requirements that are relevant to our operations.
- Providing and maintaining safe plant and equipment and a safe working environment.
- Taking prompt and effective action to address any problems identified through monitoring the implementation of safe working practices and procedures.
- Communicating openly with all persons working on behalf of the company in relation to health and safety matters.
- Minimising wastes and emissions, reuse and recycle materials and conserve energy and water to minimise our impact to the environment and also adhering to an effective waste management plan in practice at the factory.

Indian Potash Limited (Distillery Unit) Rohana Kalan, Muzaffarnagar is committed to a protective approach to incident prevention in order to achieve continual improvement in Health, Safety and Environment. Management is responsible for ensuring that all employees understand the effect that good health, safety and environment protection performance can have on improving the company's business performance and their role in achieving the company's aims through the implementation of this policy. All employees are required to understand that they have a duty of care not just for their own safety but also for the health and safety of others.

Updated on 01-10-2021



Dr. P.S. Gahlaut
Managing Director

