

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

(April, 2022 to September 2022)

For

**EXPANSION OF EXISTING DISTILLERY UNIT FROM 60 KLD
TO 100 KLD & CO-GENERATION FROM 2.2 MW TO 4.0 MW
(CURRENTLY OPERATING AT 125 KLD CAPACITY
ON B HEAVY MOLASSES / SUGAR SYRUP)**

By

Gobind Sugar Mills Limited Unit Distillery

At

**Village Khamaria Pandit, Aira Estate,
District: Lakhimpur Kheri (U.P.)**

For Submission to:

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

Submitted By:

M/s Gobind Sugar Mills Limited Unit Distillery

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CHAPTER-1

INTRODUCTION AND PROJECT DESCRIPTION

Six monthly environmental compliance / status report is submitted for Expansion of Existing Distillery Unit from 60 KLD to 100 KLD by Gobind Sugar Mills Limited Unit Distillery for April 2022 - September 2022. The Project is located at Village Khamaria Pandit, Aira Estate, District: Lakhimpur Kheri (U.P.). Prior Environment Clearance was obtained from SEIAA, U. P. wide Ref. no.: **206/Parya/SEIAA/4955-5369/2019, dated 16 July, 2020**. Consent to operate for Water has already been obtained for the project Vide Ref No. - **144336/UPPCB/Lucknow (UPPCBRO)/CTO/water/LakhimpurKhiri/2021, dated 23/12/2021** and Consent to operate for Air Vide Ref No. **144352/UPPCB/Lucknow (UPPCBRO)/CTO/air/Lakhimpurkhiri/2021, dated 23/12/2021** for validity upto 31/12/2023. No objection certificate for “No increase in pollution load” of Distillery capacity 125 KLD on B heavy Molasses and Sugar Syrup has been granted through UPPCB Letter no –127/UPHOC5/EIA/LAKHIMPURKHIRI/2022 dated 06/06/2022. Copy of NOC is attached here as **Annexure-1**.

No objection certificate for “No increase in pollution load” of Distillery capacity 125 KLD on B heavy Molasses and Sugar Syrup has been granted through UPPCB Letter no – 127/UPHOC5/EIA/LAKHIMPURKHIRI/2022 dated 06/06/2022. 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 Gobind Sugar Mills Limited Unit Distillery** management team is fully conscious about Environmental Management and enhancing green belt development in project surrounding area.

Six monthly compliance/status reports for April, 2022 to September, 2022 for conditions stipulated in the Environmental Clearance letter issued by MoEF&CC are enclosed as **Annexure-2**. Photographs view of implemented mitigation measures are also attached for the ready reference as Photo Documentation.

**CHAPTER-2
COMPLIANCE OF STIPULATED CONDITIONS OF
ENVIRONMENTAL CLEARANCE**

Name of the Project: Expansion of Existing Distillery Unit from 60 KLD to 100 KLD & co-generation from 2.2 MW to 4.0 MW by Gobind Sugar Mills (GSML) Distillery Unit, at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.).

Clearance Letter No: 206/Parya/SEIAA/4955-5369/2019, dated 16 July, 2020

Period of Compliance Report: (April, 2022 to September, 2022).

| S. No | Conditions | | | |
|-------|--|------------------------|---|---|
| 1. | The environmental clearance is sought for Expansion of Existing Molasses Based Distillery unit from 60 KLD to 100 KLD & co-generation of power from 2.2 MW TO 4 MW at Village Khamaria Pandit, Air Estate, District- Lakhimpur Kheri, U.P., M/s Gobind Sugar Mills (GSML) Distillery Unit. | | | |
| 2. | Terms of reference in the matter were issued by MoEF&CC, Govt. of India vide letter no. 321/Parya/SEAC/4955/201 8, dated 02.11.2019 | | | |
| 3. | Final EIA report submitted by the project proponent on 09.01.2020. | | | |
| 4. | Salient features of the project: | | | |
| | Sr. No. | Item | Details | |
| | 1 | Name of the Project | Gobind Sugar Mills Limited (GSML) (Distillery Unit) Village–Khamaria Pandit, Aira, Estate District- Lakhimpur Kheri, U.P. | |
| | 2 | Capacity of Distillery | Expansion from 60 KLPD to 100 KLPD (Rectified Spirit/Extra Neutral Alcohol/Ethanol) | |
| | 3 | Power Generation | Expansion from 2.2 to 4.0 MW Co- Generation of Power. | |
| | 4 | Category | Category “B” and Schedule - 5 (g) | |
| 5. | Project Summary | | | |
| | Sr. No. | Attributes | Existing 60 KLD capacity | Proposed 100 KLD (60 KLD + 40 KLD new) capacity |
| | 5. | Total Project Area | 3.165 Hectare | 3.165 Hectare (No additional land required) |
| | 6. | Green belt area | 33% of total land area | Unit will now develop 35% of total area as green belt (1.1 Hectare) |
| | 7. | No. of working days | 310 days per annum (as per existing EC) | 360 days per annum |
| | 8. | Total Project Cost | 10738.11 Lakhs | 16,571.00 Lakhs |
| | 9. | Quantity of Molasses | 270 T/DAY | 450 T/DAY (@4.5 T/ KL of Product) (316 KLD) |

Six Monthly Compliance Report of Environmental Clearance for Expansion of Existing Distillery Unit from 60 KLD to 100 KLD & co-generation from 2.2 MW to 4.0 MW by Gobind Sugar Mills (GSML) Distillery Unit, at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)

**EC Compliance
April, 2022 to
September, 2022**

| | | | |
|-----|---|--|--|
| 10. | Steam Requirement | 19 TPH | 28 TPH |
| 11. | Slop fired boiler | 01 No Slop fired Boiler Capacity 20 TPH. | Only new 01 no. of Slop fired Boiler Capacity 35 TPH shall be installed. |
| 12. | Fuel Quality & Quantity | Bagasse = 100 TPD+ Slop = 175m ³ /day | Bagasse = 200 TPD + Slop =248 m ³ /day |
| 13. | Air Pollution Control Device | Bag Filters | Bag Filters |
| 14. | Nos. of Stack | 1 No. of Stack existing of 80 Meters Height. | Only 1 No. of stack is proposed of 80 Meters Height. |
| 15. | Water Requirement | 560 KLD is fresh water requirement for 60 KLD distillery. | 600 KLD@6.0 KL/KL of Alcohol for industrial use, and 20 KLD for domestic purposes. Total water requirement: 620 KLD. |
| 16. | Spent wash generation | 460 KLD @ 7.6 KL/KL of product | 600 KLD@6 KL/KL of product |
| 17. | Waste Water Treatment | For Spent Wash Treatment: MEE + Incineration (Slop fired Boiler) For Other Effluent (Condensate, Leese, Floor washing, Blow downs) Secondary Treatment Plant is installed to achieve the ZERO DISCHARGE. | For Spent Wash Treatment: MEE + Incineration (Slop fired Boiler) For Other Effluent (Condensate, Leese, Floor washing, Blow downs) Secondary Treatment Plant shall be installed upto tertiary level to achieve the ZERO DISCHARGE. |
| 18. | Solid Waste Generation Ash from Boiler Use: | Total Ash Generated: 37 TPD Fermenter sludge: 50 TPD Use: Total Ash & sludge is being used as manure. | Total Ash Generated: 42.6 TPD Fermenter sludge: 58 TPD Use: Total Ash & sludge shall be used as manure. |
| 19 | Cost towards Environmental protection measures (Capital cost) | Rs. 815 lakhs | Rs. 400 lakhs Total: 1215 Lakhs |

Six Monthly Compliance Report of Environmental Clearance for Expansion of Existing Distillery Unit from 60 KLD to 100 KLD & co-generation from 2.2 MW to 4.0 MW by Gobind Sugar Mills (GSML) Distillery Unit, at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)

**EC Compliance
April, 2022 to
September, 2022**

| | | | | | |
|----|---|--|---|--|------------------------|
| | 20 | Recurring cost towards Environmental control measures. | Rs. 73 Lakhs /Annum | Rs :50 Lakhs/Annum | Total: 125 Lakhs/Annum |
| | 21 | Corporate Social Responsibility | 2% of total annual Profit as per the CSR Act (By Ministry of corporate affairs) Notification GSR 129 (E). | Corporate Social Responsibility | |
| 6. | Land use details: | | | | |
| | Sr. No. | Land Use | Area (Sqm) | Area in % | |
| | 1 | Green Belt Area | 11000 | 35 | |
| | 2 | Open Land | 5624 | 17 | |
| | 3 | Road/Paved Area | 1980 | 6 | |
| | 4 | Rooftop area of building/Sheds | 13046 | 42 | |
| | 5 | Grand Total | 31650 | 100 | |
| 7. | Raw material required with daily consumption and transport: | | | | |
| | Sr. No. | Particular | Daily Requirements For 100 KL/Day plant | Source of raw material & Mode of Transportation | |
| | 1 | Molasses | 450 T/DAY | Adjacent sugar mills/ By road | |
| | | Other Chemicals Required | | | |
| | 2 | Sodium Hydroxide (caustic) (kg/day) | 250 | 30.0 days storage will be provided and raw material will be transported through Tankers. | |
| | 3 | Nutrients (DAP/Fertilizers) (kg/day) | 280 | | |
| 4 | Antifoam Agent (kg/day) | 20 | | | |

| | | | | | | | | | | | |
|-----|---|--|---|------------------------|--|---|----------------------|--|---|-------------------------|---------|
| 8. | <p>Plant and machinery:</p> <ol style="list-style-type: none"> 1) 100 KLPD Ethanol plant with integrated evaporator and alcohol storage system, MEE 2) 35 TPH concentrated spent wash (slop) fired incineration boiler including air pollution control system (Bag filters) 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) ETP/Condensate treatment system 11) Distributed control system 12) Firefighting system etc. 13) Molasses storage tanks 14) Product storage tanks 15) Weighbridges 16) RCC Chimney | | | | | | | | | | |
| 9. | <p>Water requirement details:</p> <table border="1" data-bbox="304 1093 1420 1283"> <tr> <td data-bbox="304 1093 379 1144">1</td> <td data-bbox="379 1093 667 1144">Industry Use</td> <td data-bbox="667 1093 1420 1144">600 KLD (@6.0 KL/KL of product)</td> </tr> <tr> <td data-bbox="304 1144 379 1196">2</td> <td data-bbox="379 1144 667 1196">Domestic Use</td> <td data-bbox="667 1144 1420 1196">20 KLD</td> </tr> <tr> <td data-bbox="304 1196 379 1283">3</td> <td data-bbox="379 1196 667 1283">Total Water Requirement</td> <td data-bbox="667 1196 1420 1283">620 KLD</td> </tr> </table> <p>Source: Ground water (from Tube Domestic As per CGWA; area categorization unit falls under safe category for which CGWA NOC Accorded.</p> | | 1 | Industry Use | 600 KLD (@6.0 KL/KL of product) | 2 | Domestic Use | 20 KLD | 3 | Total Water Requirement | 620 KLD |
| 1 | Industry Use | 600 KLD (@6.0 KL/KL of product) | | | | | | | | | |
| 2 | Domestic Use | 20 KLD | | | | | | | | | |
| 3 | Total Water Requirement | 620 KLD | | | | | | | | | |
| 10. | <p>Waste water generation:</p> <table border="1" data-bbox="304 1458 1420 1800"> <tr> <td data-bbox="304 1458 379 1545">1</td> <td data-bbox="379 1458 667 1545">Waste water generation</td> <td data-bbox="667 1458 1420 1545">Spent wash 600 KLD @ 6.0 KL/KL of product other effluents: 628 KLD (Condensates)</td> </tr> <tr> <td data-bbox="304 1545 379 1800">2</td> <td data-bbox="379 1545 667 1800">Treatment Technology</td> <td data-bbox="667 1545 1420 1800">For Spent wash: MEE followed by Incineration (Slop fired Boiler) and for Other Effluent: Process Condensate Polishing Plant shall be installed for treatment of various other effluents (Condensate, Lees, Floor washing, Blow downs). Domestic effluent shall be disposed in Soak pit and Septic tank</td> </tr> </table> | | 1 | Waste water generation | Spent wash 600 KLD @ 6.0 KL/KL of product other effluents: 628 KLD (Condensates) | 2 | Treatment Technology | For Spent wash: MEE followed by Incineration (Slop fired Boiler) and for Other Effluent: Process Condensate Polishing Plant shall be installed for treatment of various other effluents (Condensate, Lees, Floor washing, Blow downs). Domestic effluent shall be disposed in Soak pit and Septic tank | | | |
| 1 | Waste water generation | Spent wash 600 KLD @ 6.0 KL/KL of product other effluents: 628 KLD (Condensates) | | | | | | | | | |
| 2 | Treatment Technology | For Spent wash: MEE followed by Incineration (Slop fired Boiler) and for Other Effluent: Process Condensate Polishing Plant shall be installed for treatment of various other effluents (Condensate, Lees, Floor washing, Blow downs). Domestic effluent shall be disposed in Soak pit and Septic tank | | | | | | | | | |
| 11. | <p>The project proposal falls under Category 'B' and Schedule- 5 (g) of EIA Notification, 2006 (as amended).</p> | | | | | | | | | | |

| I. Statutory compliance | | |
|--------------------------------|--|---|
| Sr. No. | Conditions | Compliance Status |
| 1. | Zero liquid discharge (ZLD) technology should be adopted and no effluent will be discharged outside the premises. | Unit has adopted Zero liquid discharge treatment strategy as unit has installed slop fired boiler, MEE and condensate polishing unit. Photographs of the same are already submitted. |
| 2. | 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. | No forest area is found in study area; hence forest clearance condition is not applicable. |
| 3. | The project proponent shall obtain clearance from the National Board for Wildlife, if applicable. | Not applicable. |
| 4. | The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife. | Condition Noted. |
| 5. | 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). | No schedule-I species is found in study area, hence this condition is not applicable. |
| 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. | Consent to Establish/operate for the project has been obtained from the State Pollution Control Board as required under Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974. Copy of CTO (Air & Water) is Enclosed 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. | Unit has valid Hazardous Authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time. Copy of the same is enclosed as |

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| | | Annexure-1. |
| 8. | The company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemical (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemical shall be as per the Motor Vehicle Act (MVA),1989 | The company is strictly complying with the rules and guidelines under Manufacture Storage and Import of Hazardous Chemicals is as per the Motor Vehicle Act (MVA), 1989. |
| I. 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 server 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. | Unit has installed 24x7 continuous emission monitoring system at stack to monitor stack emissions with respect to standards prescribed in Environment (Protection) Rules 1986 and installed OCEMS is connected to SPCB and CPCB online servers. Regular calibrations of these systems were done from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986. The photographs of installed OCEMS are already submitted |
| 2. | The project proponent shall install system carryout to Ambient Air Quality Monitoring for common/criterion parameters relevant to the main pollutants released (eg PM ₁₀ and PM _{2.5} in reference to PM emission, and SO ₂ and NO _x in reference to SO ₂ 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). | As per the direction, unit has made arrangement for ambient air quality monitoring. |
| 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 | Test reports of stack, air quality are enclosed here with as Annexure-2. |

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| | 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. | The unit has installed bag filters as air pollution control system with defined stack height as per the norms; The unit is complying with the 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 16 th November, 2009 shall be complied with. | The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826 (E) dated 16 th November, 2009 is 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. | Unit is only using slop and bagasse as a fuel. The gaseous emissions are dispersed through stack of adequate height as per CPCB/SPCB guidelines. |
| 7. | The DG set 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 the regard. | Condition noted and complied. |
| 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 is being done in molasses storage tank; bagasse is stored in covered sheds. Regular water sprinkling is done avoid dust pollution and fugitive emissions. |
| II. 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. | Unit has installed web camera at condensate polishing unit (CPU) with night vision capacity. Flow meters are also installed. |
| 2. | Zero liquid discharge shall be ensured and no waste/treated water shall be discharged outside the premises (applicable in case of the project 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 | Process effluent/any wastewater do |

| | | |
|--|--|--|
| | allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system. | not mix with storm water. The storm water from the premises is collected and used within premises. |
| 4. | The effluent discharge shall conform to the standards prescribed under the Environment | Unit is based on Zero Liquid Discharge strategy; no effluent is discharged outside premises. |
| 5. | (Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting | |
| 6. | Consent under the Air/Water Act, whichever is more stringent. | |
| 7. | 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. | Currently unit has valid CGWA NOC, As online site is under up gradation as it gets ok Unit will obtain necessary permission from UPGWD as per U.P. Ground Water (Management and Regulation) Act 2019 |
| 8. | 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. | For Spent wash: MEE followed by Incineration (Slop fired Boiler) For Other Effluent: Process Condensate Polishing Plant installed for treatment of various other effluents (Condensate, Lees, Floor washing, Blow downs). Domestic effluent disposed in Soak pit and Septic tank. |
| 9. | 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. | Unit is following CGWA Guidelines for Rain water harvesting, as per direction unit has adopted ponds for rain water harvesting purpose. |
| III. 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. |
| 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, | 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-2. |
| 4. | 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time. | |
| IV. Energy Conservation measure: | | |
| 1. | The Energy sources for lighting purposes shall preferably be LED based. | The unit has preferred LED Lighting in the campus. |
| V. 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. | Unit is following hazardous authorization issued by MOEF&CC. |
| 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 generation: 42.6 MT/DAY: Ash is used as manure due to high potash value (27%-35%) Fermenter Sludge: 58 MT/Day: used as manure. |
| 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 minimized spillage. | Condition noted. |
| iv. | Use of Close feed system into batch reactors. | Unit is 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 waste water generation. | Unit has installed high pressure hoses for equipment clearing to reduce wastewater generation. |
| VI. 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 | 33% green belt developed within the plant premises as per the guidelines. Photographs of green belt are |

| | | |
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| | periphery of the plant. | enclosed as Annexure-3. |
| VII. 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. | Condition noted and complied. |
| 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. | Training is imparted to all concerning employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees have been done on regular basis. Training to all employees on handling of chemicals is imparted. The report on medical checkup of employees is enclosed as Annexure-4. |
| 4. | 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. | Condition noted and complied. |
| 5. | 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 STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project. | Condition noted and complied. |
| 6. | 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. Health Report enclosed as Annexure-4. |
| 7. | There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and | Unit has earmarked adequate space for parking of vehicles. Copy of the final layout depicting parking area |

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| | no parking to be allowed outside on public places. | is already submitted. |
| VIII. Corporate Environment Responsibility | | |
| 1. | The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No 2265/2017-IA.III dated 1 st May 2018, as applicable, regarding Corporate Environment Responsibility. | The MoEF Office Memorandum dated 30.09.2020 has superseded the Office Memorandum dated 01.05.2018 regarding the Corporate Environmental Responsibility. The unit is committed and is providing education funds in training centers/support in nearby villages school, support in health care facilities, drinking water supply, and allocated funds for miscellaneous activities like solar street lights, battery, solar panel etc. in nearby villages. Copy of the Office Memorandum dated 30.09.2020 is enclosed as Annexure- 5. |
| 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/ 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. | The company is having an environmental policy duly approve by the Board of Directors. Copy of the same is already submitted. The laid environmental policy is as per the said condition. |
| 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. Copy of the Environmental Cell of the unit is enclosed as Annexure-6. |
| 4. | Action plan for implementing EMP and environmental conditions along with | Condition noted |

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| | responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. | |
| 5. | 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 for compliance. |
| 6. | Self-environmental audit shall be conduct annually. Every three years third party environmental audit shall be carried out. | Condition noted for compliance. |
| IX. Miscellaneous: | | |
| 1. | The project proponent shall ensure that waste water is properly treated in ETP and reused. As proposed treated waste water should be completely recycle/ reuse and ZLD should be achieved. Under no circumstances treated waste water shall be discharged to any drain/sewer line/ inland surface water/ Nala etc. | Unit working on principle of maximum reuse and recycle; unit maintains zero liquid discharge scheme. |
| 2. | “Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied”. | Condition noted for compliance. Unit has made budgetary provision for the same. |
| 3. | The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguard at their cost by prominently advertising it at least in two 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 is enclosed herewith. Annexure-7. |
| 4. | The copies of the environmental clearance shall be submitted by the project proponent to the Heads of the local bodies, Panchayat and Municipal bodies in addition to the relevant officers 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. |
| 5. | The project proponent shall upload the status | Condition noted for compliance. |

Six Monthly Compliance Report of Environmental Clearance for Expansion of Existing Distillery Unit from 60 KLD to 100 KLD & co-generation from 2.2 MW to 4.0 MW by Gobind Sugar Mills (GSML) Distillery Unit, at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)

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| | of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same on half-yearly basis. | |
| 6. | The project proponent shall monitor the criteria pollutant levels namely; PM ₁₀ , SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectorial 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-1 . |
| 7. | 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 environmental clearance portal. | As per the direction unit is regularly submitting the six-monthly compliance reports within stipulated time frame. |
| 8. | 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 Environmental (Protection) Rules, 1986, as amended subsequently and put on the website of the company. | Unit is regularly submitting the Environmental statement to Uttar Pradesh Pollution Control Board as prescribed under the Environmental (Protection) Act, 1986. |
| 9. | 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. | Unit has obtained Consent to establish. |
| 10. | The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government. | The project authorities are strictly complying to the stipulations made by the State Pollution Control Board and the State Government. |
| 11. | 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. | The project proponent abides 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 |
| 12. | No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, | Unit will not expand or modify the plant without prior approval from the MoEF as well as UPPCB. |

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| | Forest and climate change (MoEF&CC). | |
| 13. | 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 | Unit has not concealed any data. |
| 14. | The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory. | Condition noted. |
| 15. | The Ministry reserves the right to stipulate additional conditions if found necessary. | Condition noted. |
| 16. | The company in a time bound manner shall implement these conditions. | Condition noted. |
| 17. | 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. |
| 18. | The above condition 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) Rules 1986, the Hazardous and other Waste Management 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. | The unit is regularly complying with 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 Trans-boundary 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. |
| 19. | 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. | Condition noted. |

CHAPTER-3 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 4 locations; near Main Gate of the project site, Samalsa village, Samardahari village and in Khamaria Pandit village. 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 | Date of Monitoring |
|--------|---------------|---|--------------------------------------|-----------------------------|
| 1. | AAQ-1 | Near Main Gate (Factory) (Station No: 1) | Industrial | 06.07.2022 to 07.07.2022 |
| 2. | AAQ-2 | Village: Samalsa (Station No: 2) | Residential | 06.07.2022 to 07.07.2022 |
| 3. | AAQ-3 | Village: Samardahari (Station No: 3) | Residential | 06.07.2022 to 07.07.2022 |
| 4. | AAQ-4 | Village; Khamaria Pandit (Station No: 4) | Residential | 06.07.2022 to 07.07.2022 |

AAQ-1: Near Main Gate (Station No: 1)

The sampler was placed near Main gate and was free from any obstructions. Surroundings of the sampling site represent industrial environmental setting.

AAQ-2-4: Village Khamaria Pandit, Samalsa, and Samardahari,

The sampler was placed at Village Khamaria Pandit, Samalsa and Samardahari was free from any obstructions. Surroundings of the sampling site represent village 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 Central Pollution Control Board (CPCB) and 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 Near Main Gate (Factory) (Station No: 1)

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 Near Main Gate (Factory) (Station No: 1)**

| 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: 2017 | µg/m ³ | 82.5 | 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 | 52.38 | 2.0 - 500 | For 24 hour =60 |
| 3 | Sulphur Dioxides (SO ₂) | IS: 5182 (Part-2): 2001 Reaffirmed: 2017 | µg/m ³ | 14.15 | 5.0 - 1050 | For 24 hour =80 |
| 4 | Oxides of nitrogen (NO _x) | IS: 5182 (Part-6): 2006 Reaffirmed: 2017 | µg/m ³ | 20.08 | 6.0 - 750 | For 24 hour =80 |

3.1.4 Ambient Air Quality Monitoring Results at Village: Samalsa (Station No: 2)

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 Village: Samalsa (Station No: 2)

| 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: 2017 | µg/m ³ | 78.5 | 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 | 48.61 | 2.0 - 500 | For 24 hour =60 |
| 3 | Sulphur Dioxides (SO ₂) | IS: 5182 (Part-2): 2001 Reaffirmed: 2017 | µg/m ³ | 12.35 | 5.0 - 1050 | For 24 hour =80 |
| 4 | Oxides of nitrogen (NO _x) | IS: 5182 (Part-6): 2006 Reaffirmed: 2017 | µg/m ³ | 18.58 | 6.0 - 750 | For 24 hour =80 |

3.1.5 Ambient Air Quality Monitoring Results at Village: Samardahari (Station No: 3)

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 Village: Samardahari (Station No: 3)

| 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: 2017 | µg/m ³ | 73.6 | 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 | 45.33 | 2.0 - 500 | For 24 hour =60 |
| 3 | Sulphur Dioxides (SO ₂) | IS: 5182 (Part-2): 2001 Reaffirmed: 2017 | µg/m ³ | 12.87 | 5.0 - 1050 | For 24 hour =80 |
| 4 | Oxides of nitrogen (NO _x) | IS: 5182 (Part-6): 2006 Reaffirmed: 2017 | µg/m ³ | 16.84 | 6.0 - 750 | For 24 hour =80 |

3.1.6 Ambient Air Quality Monitoring Results at Village; Khamaria Pandit (Station No: 4)

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 at Village; Khamaria Pandit (Station No: 4)

| 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 (PM₁₀) | IS: 5182 (Part-23): 2006 Reaffirmed: 2017 | µg/m ³ | 80.10 | 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 | 49.14 | 2.0 - 500 | For 24 hour =60 |
| 3 | Sulphur Dioxides (SO₂) | IS: 5182 (Part-2): 2001 Reaffirmed: 2017 | µg/m ³ | 12.57 | 5.0 - 1050 | For 24 hour =80 |
| 4 | Oxides of nitrogen (NO_x) | IS: 5182 (Part-6): 2006 Reaffirmed: 2017 | µg/m ³ | 17.25 | 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 & 4 are 82.5 µg/m³, 78.5 µg/m³, 73.6 µg/m³ & 80.1 µg/m³ respectively which were within permissible limit of 100 µg/m³ and PM_{2.5} levels are 52.38 µg/m³ at Station No: 1, 48.61 µg/m³ at Station No: 2, 45.33 µg/m³ at Station No: 3 and 49.14 µg/m³ at Station No: 4, 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 12.35 µg/m³ to 14.15 µg/m³ and NO_x ranges between 16.84 µg/m³ to 20.08 µg/m³ was also observed within the corresponding stipulated limits (Limit for SO₂ and NO_x; 80 µg/m³) at all of the 3 monitoring locations. Station wise variation of ambient air quality parameters has been graphically shown in **Figure-3.1 to 3.4**.

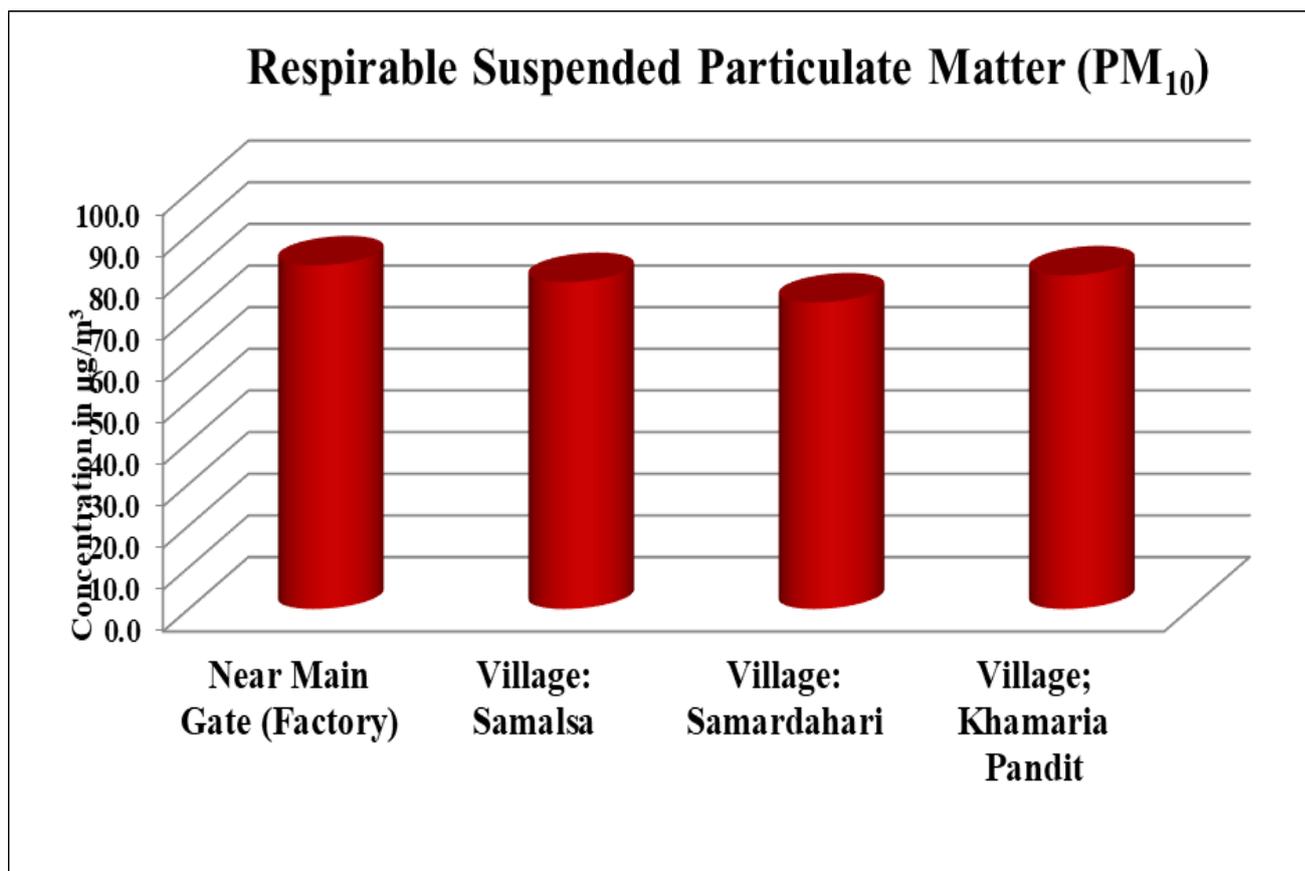


Figure-3.1: Graphs Showing PM₁₀ Concentration at all sites

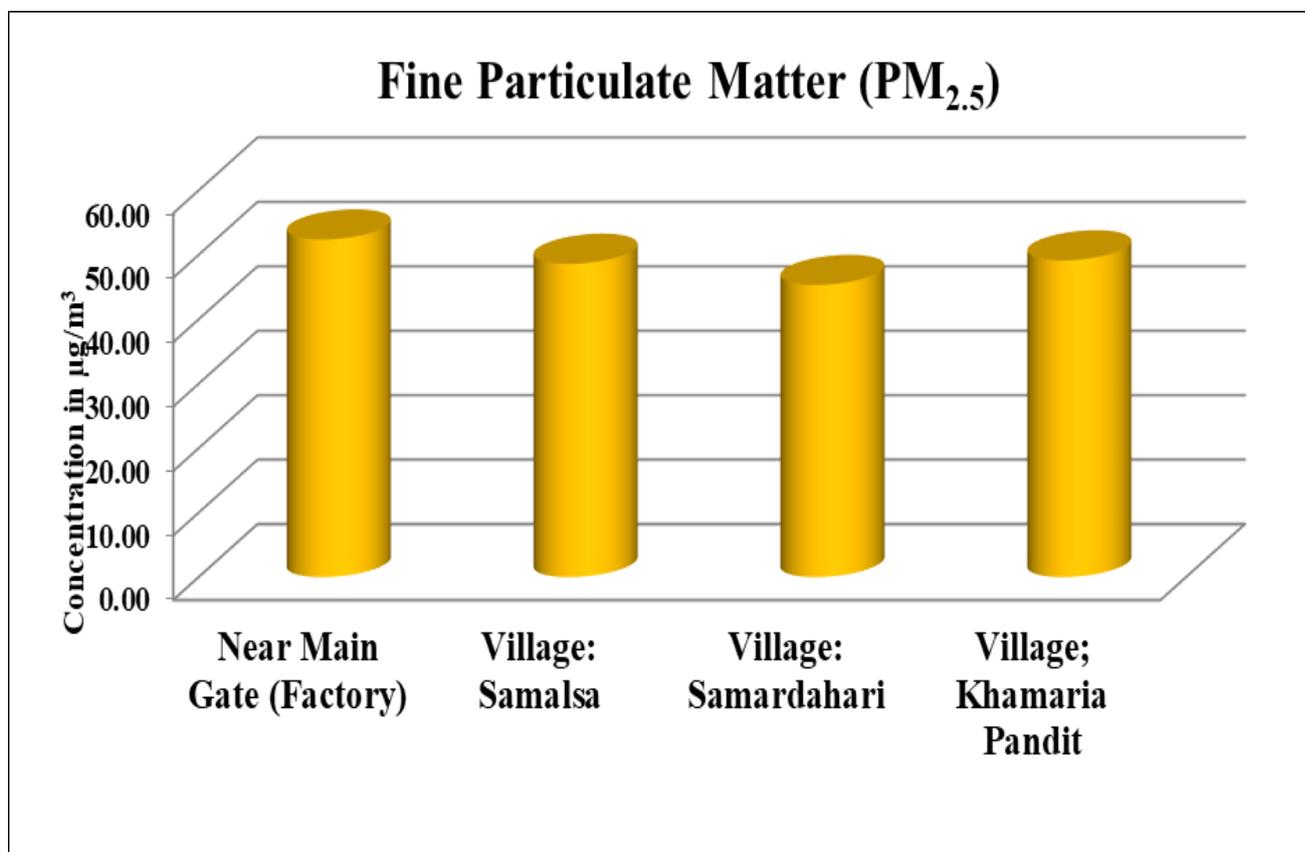


Figure-3.2: Graphs Showing PM_{2.5} Concentration at all sites

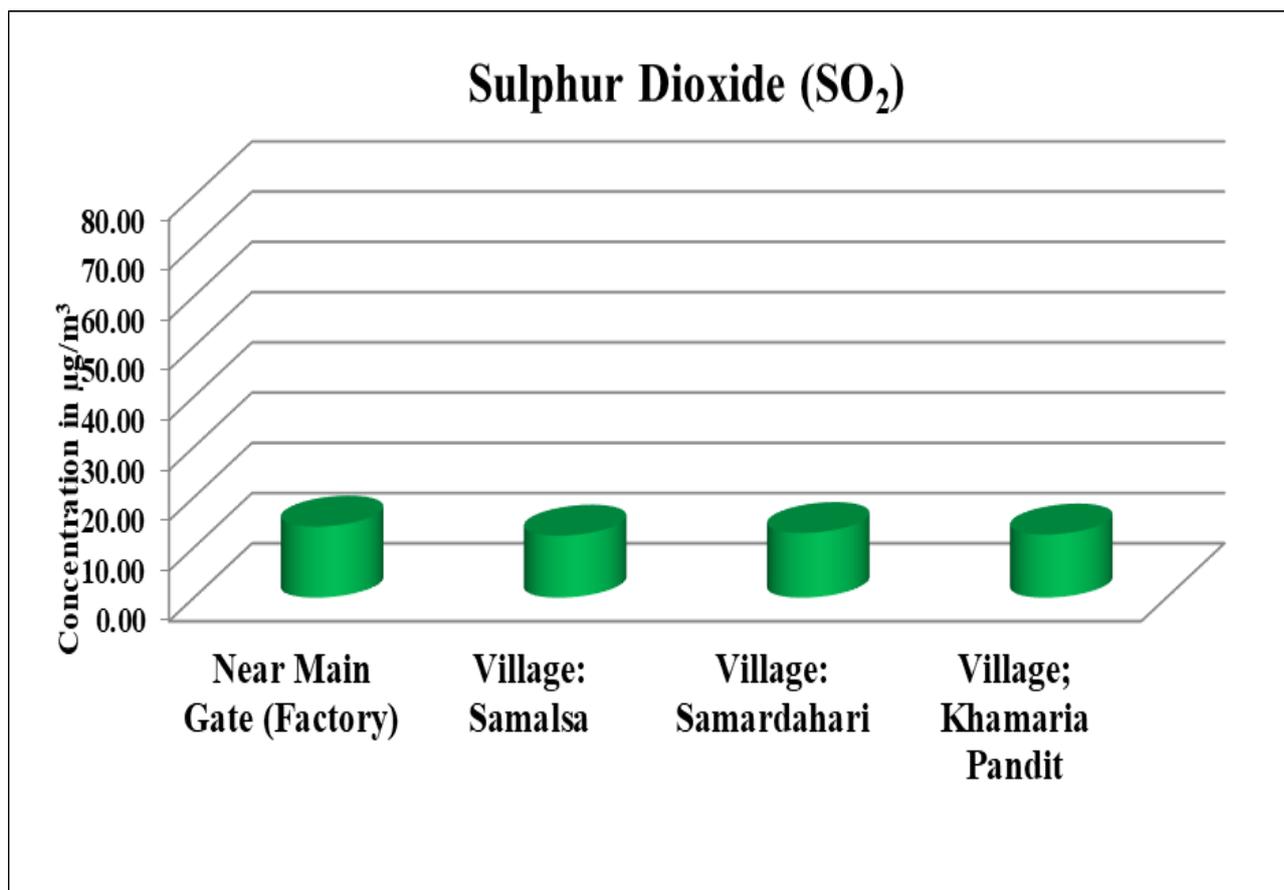


Figure-3.3: Graphs Showing SO₂ Concentration at all sites

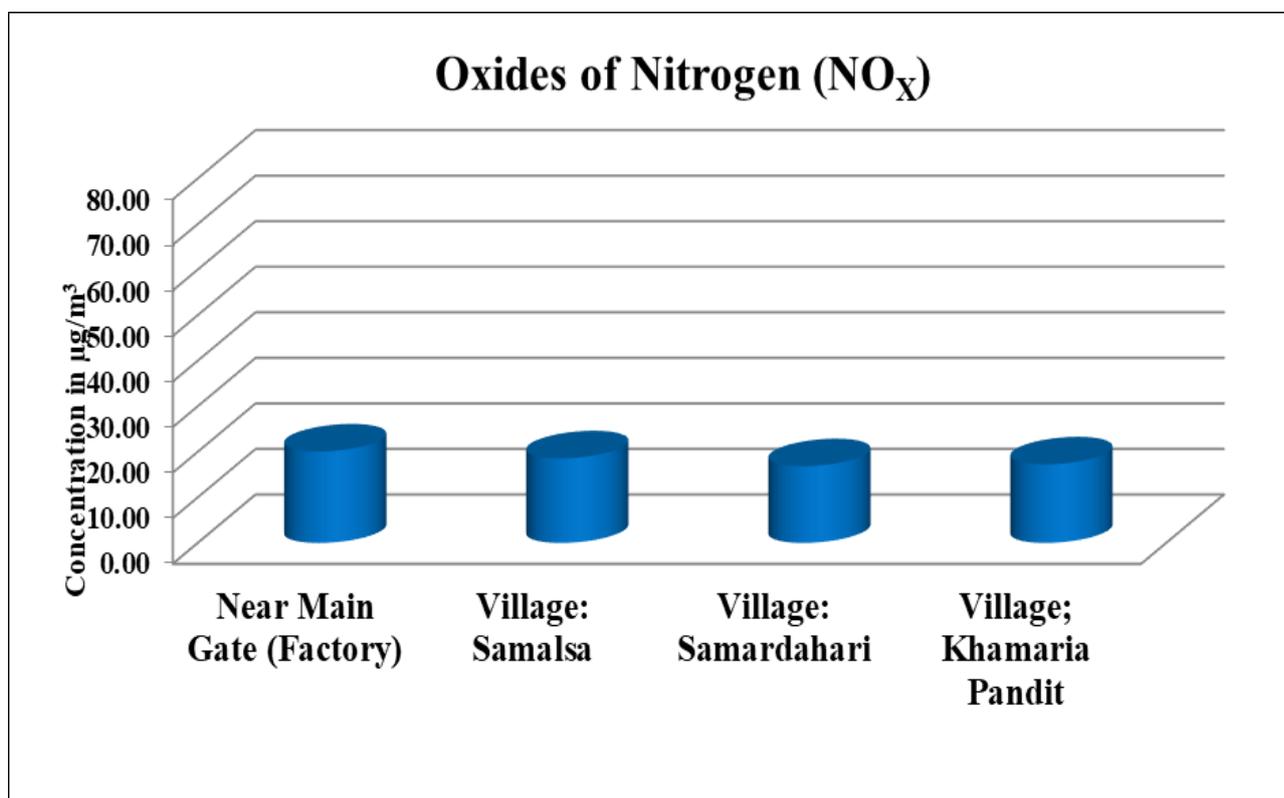


Figure-3.4: Graphs Showing NO_x Concentration at all sites

3.2 STACK EMISSION MONITORING

Stack Emission monitoring was carried out by EPA approved Laboratory on date 07.07.2022 for the installed slop fired boiler (attached with Bag Filters as air pollution control device with a stack height of 80 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 | 47.2 | 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 industrial 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 1 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-1 | Near admin block | 07/07/2022 to 08/07/2022 |

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 (6:00 AM - 10:00 PM) | Results NIGHT TIME (10:00 PM - 6:00 AM) |
| 1 | Equivalent sound level | dB(A) | 62.48 | 50.08 |

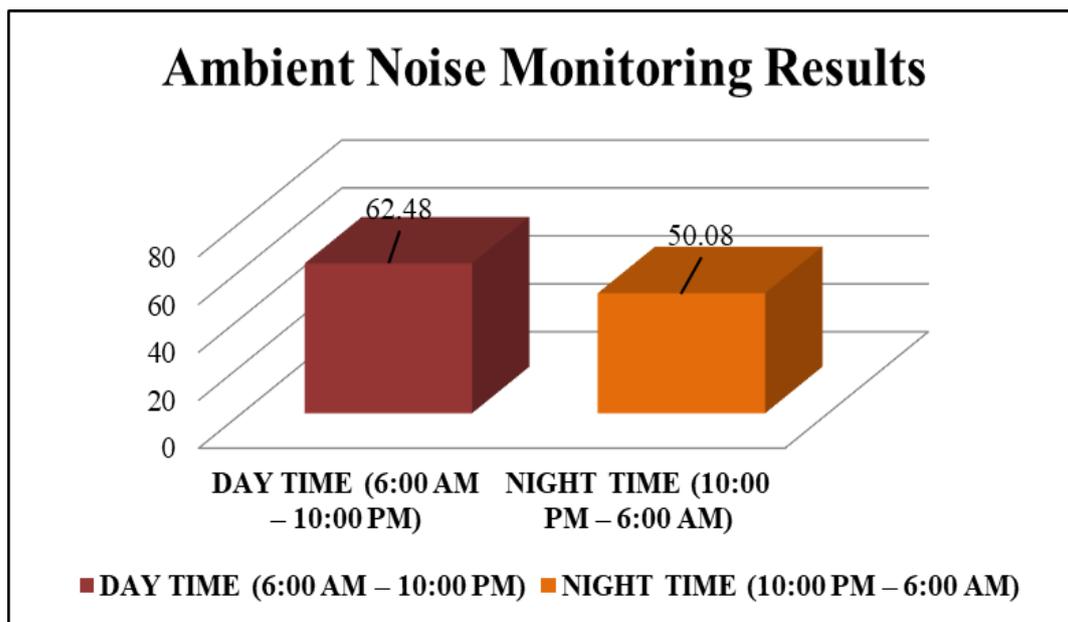


Figure-3.5: Day and Night Time noise Level at Near admin block

| 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 62.48 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 50.08 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-3.10**.

Table-3.10:

Details of Water Quality Monitoring Station

| Sr. No | Location Code | Location name and description | Date of Monitoring |
|--------|---------------|-------------------------------|---------------------------------|
| 1. | GW-1 | Borewell (within premises) | 01 st April, 2022 |
| 2. | GW-1 | Borewell (within premises) | 09 th May, 2022 |
| 3. | GW-1 | Borewell (within premises) | 04 th June, 2022 |
| 4. | GW-1 | Borewell (within premises) | 08 th July, 2022 |
| 5. | GW-1 | Borewell (within premises) | 13 th August, 2022 |
| 6. | GW-1 | Borewell (within premises) | 08 th September-2022 |

3.4.2 Methodology of ground water Quality Monitoring

Sampling of ground water was carried out on 01.04.2022, 09.05.2022, 04.06.2022, 08.07.2022, 13.08.2022 and 08.09.2022. 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-3.11 to Table-3.16**.

3.4.3 Ground water Quality Monitoring Results

The detailed Ground water quality monitoring results are presented in **Table-3.11 to Table-3.16**.

Six Monthly Compliance Report of Environmental Clearance for Expansion of Existing Distillery Unit from 60 KLD to 100 KLD & co-generation from 2.2 MW to 4.0 MW by Gobind Sugar Mills (GSML) Distillery Unit, at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)

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**Table-3.11:
Ground water Quality Results at Borewell within premises (April, 2022)**

| 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 | 402.5 | 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 | 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 | 59.2 | 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 F | 32.0 | 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⁻ | 26.4 | 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 |
| 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) | 0.07 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.54 | 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. 2017-3120 B (ICP-OES) | 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 | 0.01 | 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 | <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 | |

Six Monthly Compliance Report of Environmental Clearance for Expansion of Existing Distillery Unit from 60 KLD to 100 KLD & co-generation from 2.2 MW to 4.0 MW by Gobind Sugar Mills (GSML) Distillery Unit, at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)

**EC Compliance
April, 2022 to
September, 2022**

**Table-3.12:
Ground water Quality Results at Borewell within premises (May 2022)**

| 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 | 410.8 | 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 | 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 | 34.02 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl F | 36.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F C | 0.38 | 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 | 300.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 272.0 | 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 |
| 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) | 0.03 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.49 | 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. 2017-3120 B (ICP-OES) | 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 | 0.01 | 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 | <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 | |

Six Monthly Compliance Report of Environmental Clearance for Expansion of Existing Distillery Unit from 60 KLD to 100 KLD & co-generation from 2.2 MW to 4.0 MW by Gobind Sugar Mills (GSML) Distillery Unit, at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)

**EC Compliance
April, 2022 to
September, 2022**

**Table-3.13:
Ground water Quality Results at Borewell within premises (June, 2022)**

| 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 | 392.6 | 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 | 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 | 34.02 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl F | 34.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F C | 0.41 | 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 | 292.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 276.0 | 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 |
| 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) | 0.02 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.28 | 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. 2017-3120 B (ICP-OES) | 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 | 0.01 | 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 | <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 | |

Six Monthly Compliance Report of Environmental Clearance for Expansion of Existing Distillery Unit from 60 KLD to 100 KLD & co-generation from 2.2 MW to 4.0 MW by Gobind Sugar Mills (GSML) Distillery Unit, at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)

**EC Compliance
April, 2022 to
September, 2022**

**Table-3.14:
Ground water Quality Results at Borewell within premises (July, 2022)**

| 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 | 384.0 | 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 | 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 | 31.10 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl F | 36.0 | 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⁻ | 28.4 | 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 | 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 |
| 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) | 0.05 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.43 | 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. 2017-3120 B (ICP-OES) | 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 | 0.01 | 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 | <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 | |

Six Monthly Compliance Report of Environmental Clearance for Expansion of Existing Distillery Unit from 60 KLD to 100 KLD & co-generation from 2.2 MW to 4.0 MW by Gobind Sugar Mills (GSML) Distillery Unit, at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)

**EC Compliance
April, 2022 to
September, 2022**

**Table-3.15:
Ground water Quality Results at Borewell within premises (August, 2022)**

| 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 | 396.4 | 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 | 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 | 33.04 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl F | 40.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F C | 0.40 | 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⁻ | 34.0 | 1.0 - 500 | 200 | 400 |
| 16 | Alkalinity as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2320 B | 300.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 280.0 | 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 |
| 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) | 0.05 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.55 | 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. 2017-3120 B (ICP-OES) | 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 | 0.01 | 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 | <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 | |

Six Monthly Compliance Report of Environmental Clearance for Expansion of Existing Distillery Unit from 60 KLD to 100 KLD & co-generation from 2.2 MW to 4.0 MW by Gobind Sugar Mills (GSML) Distillery Unit, at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)

**EC Compliance
April, 2022 to
September, 2022**

Table-3.16;

Ground water Quality Results at Borewell within premises (September 2022)

| 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 | 404.4 | 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 | 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 | 31.10 | 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 | 0.38 | 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 | 296.0 | 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 |
| 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) | 0.39 | 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. 2017-3120 B (ICP-OES) | 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 | 0.01 | 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 | <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-3.17**.

**Table-3.17:
Details of Soil Monitoring Stations**

| Location Code | Location name and description |
|---------------|-------------------------------|
| S1 | Near Factory Premises |
| S2 | Near Khamaria Pandit village |

3.5.2 Methodology of Soil Monitoring

The sampling has been done in line with IS: 2720 & Methods of Soil Analysis, Part-1st, 2nd 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 March on 08.07.2022.

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 Spectro-photometer.

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-3.18 & 3.19**.

**Table-3.18:
Physico-Chemical Characteristics of Soil at Near Factory Premises**

| Sr. No. | Test Parameter | Unit | Protocol/Test Method | Result | Range of testing /limit of detection |
|---------|--------------------------------|----------|--|--------------|--------------------------------------|
| 1 | pH | - | IS: 2720 (Part-26): 1987 Reaffirmed: 2016 | 7.2 | 1 - 14 |
| 2 | Electrical Conductivity | µmhos/cm | IS: 14767:2000 Reaffirmed:2016 | 308.0 | 1.0 - 40000 |
| 3 | Moisture content | % | IS: 2720 (Part-2): 1973 Reaffirmed: 2015 | 4.15 | 1.0 - 50 |
| 4 | Sulphur | Kg/Hec | IS:14685: 1999 Reaffirmed: 2014 | 15.22 | 5.0 - 100 |
| 5 | Boron | mg/kg | ETRC/ LABSOPS/06 | BDL | 4.0 - 100 |
| 6 | Copper | mg/kg | ETRC/ LABSOPS/07 | 0.40 | 0.3 - 500 |
| 7 | Zinc | mg/kg | ETRC/ LABSOPS/08 | 8.46 | 1.0 - 500 |
| 8 | Iron | mg/kg | ETRC/ LABSOPS/09 | 91.0 | 5.0 - 500 |
| 9 | Manganese | mg/kg | ETRC/ LABSOPS/10 | 10.6 | 5.0 - 500 |

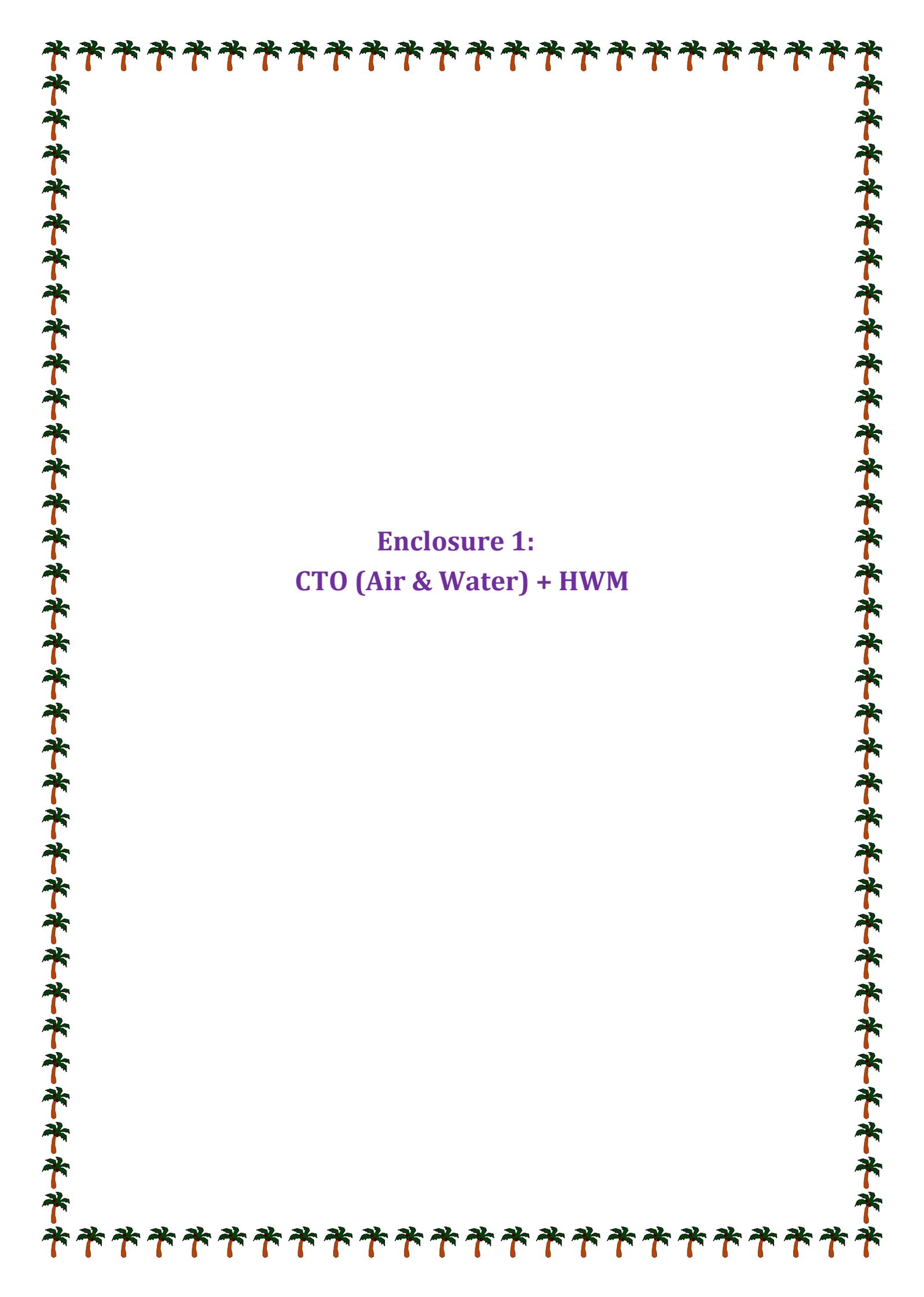
Table-3.19:

Physico-Chemical Characteristics of Soil at Near Khamaria Pandit village

| Sr. No. | Test Parameter | Unit | Protocol/Test Method | Result | Range of testing /limit of detection |
|----------------|--------------------------------|-------------|--|---------------|---|
| 1 | pH | - | IS: 2720 (Part-26): 1987 Reaffirmed: 2016 | 7.3 | 1 - 14 |
| 2 | Electrical Conductivity | µmhos/cm | IS: 14767:2000 Reaffirmed:2016 | 318.0 | 1.0 - 40000 |
| 3 | Moisture content | % | IS: 2720 (Part-2): 1973 Reaffirmed: 2015 | 4.18 | 1.0 - 50 |
| 4 | Sulphur | Kg/Hec | IS:14685: 1999 Reaffirmed: 2014 | 14.05 | 5.0 - 100 |
| 5 | Boron | mg/kg | ETRC/ LABSOPS/06 | BDL | 4.0 - 100 |
| 6 | Copper | mg/kg | ETRC/ LABSOPS/07 | 0.39 | 0.3 - 500 |
| 7 | Zinc | mg/kg | ETRC/ LABSOPS/08 | 9.14 | 1.0 - 500 |
| 8 | Iron | mg/kg | ETRC/ LABSOPS/09 | 84.2 | 5.0 - 500 |
| 9 | Manganese | mg/kg | ETRC/ LABSOPS/10 | 9.36 | 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

A decorative border consisting of a repeating pattern of palm trees, arranged in a rectangular frame around the page. The palm trees are green with brown trunks and are spaced evenly along all four sides.

Enclosure 1:
CTO (Air & Water) + HWM



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

**164011/UPPCB/Lucknow(UPPCBRO)/CTO/both/LAKHIMPUR
KHIRI/2022**

Date: 19/09/2022

To,

M/s

ZUARI INDUSTRIES LIMITED, DISTILERY DIVISION

**Village- Khamaria Pandit, Aira Estate, Tehsil Dhaurahara, District
Kheri (U.P.),LAKHIMPUR KHERI,**

**Application Id-
17744783**

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 **ZUARI INDUSTRIES LIMITED, DISTILERY DIVISION** located at **Village-Khamaria Pandit, Aira Estate, Tehsil Dhaurahara, District Kheri (U.P.),LAKHIMPUR KHERI,** 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 ZUARI INDUSTRIES LIMITED, DISTILERY DIVISION **granted for the period from 20/09/2022 to 31/12/2023** and valid for manufacturing of following products.

| S No | Product | Quantity | Unit |
|------|--|----------|-----------------|
| 1 | Ethanol/RS/ENA/AA (by B-Heavy/Sugar Syrup) | 125 | Kilo Liters/Day |
| 2 | Co-power generation plant. | 4.0 | Megawatt |
| 3 | Ethanol/RS/ENA/AA (by C-Heavy Molasses) | 100 | 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 |
|-------------------|------------------------------------|--------------------|-----------------|
| Domestic | 20.0 KLD | Septic Tank | |
| Industrial | Zero liquid Discharge (ZLD) | ETP | ZLD |

(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 |
|-------|------------|-----------|
|-------|------------|-----------|

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 | 01 nos. Slop Boiler (capacity of 35.0 TPH) attached with Bag filter | Bagasse and Slop | 1 | Particulate Matter | 80 meter from GL |

Emission Quality Standards

| S No. | Stack no | Parameters | Standards |
|-------|----------|--------------------|------------------------|
| 1 | 1 | Particulate Matter | 150 mg/Nm ³ |

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.

Specific Conditions:-

1. C T O (w a t e r) i s s u e d e a r l i e r v i d e l e t t e r n o . 144336/UPPCB/Lucknow(UPPCBRO)/CTO/Water/LAKHIMPUR KHIRI/2021 dated 23.12.2021 and CTO (air) vide letter no. 144352/UPPCB/Lucknow(UPPCBRO)/CTO/air/LAKHIMPUR KHIRI/2021 dated 23.12.2021 (validity upto 31.12.2023) is hereby revoked.
2. This consent is issued to M/s ZUARI INDUSTRIES LIMITED, DISTILLERY DIVISION (Old Name-Gohind Sugar Mills Lit., Distillery unit), Village- Khamaria Pandit, Aira Estate, Tehsil Dhaurahara, District, LAKHIMPUR KHERI for the production of 125 KLD Rectified Spirit, Extra Neutral Alcohol, Ethanol and Absolute Alcohol by using B-heavy Molasses/Sugar Syrup as raw material, or for the production of 100 KLD Rectified Spirit/Extra Neutral Alcohol/Absolute Alcohol by using C-Heavy molasses and also for a 4.0 MW Co-Generation plant.
3. This consent is valid for the current products and capacity. In Case of any change in process, capacity enhancement etc. No Objection Certificate shall be obtained from the Board.
4. The industry shall ensure to operate and maintain properly the MEE, CPU, digester and RO to ensure Zero Liquid Discharge; failing which, this consent order shall be treated as cancelled.
5. The industry shall comply with all other directions issued under the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 stipulated by Central Pollution Control Board, New Delhi to ensure achievement of Zero Liquid Discharge and maintained air quality positively.
6. The industry shall ensure compliance of conditions mentioned in the "No Increase in Pollution Load" certificate issued by the Board vide letter no. 127/UPHOC5/EIA/LAKHIMPUR KHIRI/2022 dated on 06.06.2022.
7. The industry shall ensure compliance of conditions mentioned in the CTE certificate issued by the Board vide letter no. 99524/UPPCB/Lucknow(UPPCBRO)/CTE/LAKHIMPUR KHIRI/2020 dated on 11.09.2020.

8. Due to change in raw material from C-Heavy molasses to B-Heavy molasses/Sugar Syrup expansion of Ethanol production capacity from 100 KLD to 125 KLD shall result in "No Increase in Pollution Load" subject to the condition that the project is implemented strictly in accordance with the technical details submitted by the Project Proponent in the Board.

9. The Project Proponent shall submit the validation report for 125 KLD Ethanol production using B-Heavy molasses/Sugar Syrup from any reputed Institute such as NSI, Kanpur/VSI, Pune/any IIT within 03 months after starting B-Heavy molasses/Sugar Syrup based operation.

10. If the validation report carried out by any reputed institute is same as claim made by the unit then the consent shall be valid otherwise stand automatically be revoked.

11. The unit shall restrict the concentrated spent wash storage capacity to 07 days only (B-Heavy molasses/Sugar Syrup).

12. The unit should submit monthly data of following to UPPCB:

- a. Fresh water consumption.
- b. Ethanol Production.
- c. Spent wash generation.
- d. Slop generation.
- e. Condensate generation.
- f. Feed quantity of slop into incinerator.
- g. Yeast sludge generation.
- h. Boiler ash generation.
- i. Quantity of Spent lees generation, recycle/reuse and treatment in CPU.
- j. Quantity of effluent received into CPU, details of reuse/recycle etc.

13. Industry shall operate and maintain measuring devices (water / flow meters) at required location (raw water consumption, solid separation system: feed, permeate and reject, evaporation concentration systems: feed concentrate and condensate, water reused in the process & concentrate utilized in drying system/equivalent technology) to record the water balance shortly without delay.

14. Industry shall install web cameras at each strategic location such as MEE, spent wash storage lagoon and CPU etc. for monitoring purpose and provide its URL & ID to the Board within a month.

15. Industry shall operate and maintain the effluent treatment system effectively and regularly. All the effluent treatment system shall be kept in good running condition all the time and failure (if any), shall be immediately rectified without delay otherwise, similar alternate arrangement shall be made. In the event of any failure of any pollution control system adopted by the industry, the respective production unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Industry shall not discharge any treated / untreated effluent in to the river or any surface water bodies. No effluent shall be discharged outside of the factory premises in any circumstances; hence zero discharge condition shall be maintained at all the time.

16. Industry shall make proper arrangement for safe and scientific handling, storage, transportation and disposal of all solid wastes, sludge etc. generated.

17. Spent wash generation, storage shall be done as per the guidelines of CPCB.
18. Measuring system for spent wash storage shall be installed.
19. The industry shall submit ground water quality analysis report of the nearby areas on quarterly basis in coordination with UPPCB.
20. The industry shall ensure to obtain permission from U.P. State Ground Water Department for withdrawal of ground water within 03 months.
21. Industry shall operate and maintain the installed APCS (Bag filter attached with the boiler of capacity 35 TPH) effectively and submit stack monitoring reports conducted by any NABL accredited laboratory within 15 days in the Board and after then on quarterly basis.
- 22 Online Monitoring System shall be installed at the boiler and connected to CPCB and UPPCB server.
23. The industry shall operate and maintain the Air Pollution Control System efficiently and continuously so as to satisfy the prescribed emission standards.
24. The ash generated from the Slop Boiler shall not be disposed off near any surface water body/pond/river/lake, etc.
25. Proposal for ash utilization shall be submitted to the Board within 02 months and the ash collected from the APCS shall be utilized accordingly.
- 26 Ash generated from boilers shall be stored in a safe place and proper arrangement of water sprinkling shall be done to suppress the dust particles.
- 25 The unit shall submit the latest copy of Audited Balance Sheet/C.A. Certificate (Fixed Assets+ Current Assets - Current Liabilities) so that the Consent fee payable by the industry may be verified.
- 26 The Order issued by Hon'ble Courts/Hon'ble NGT, MoEF & CC, Central Pollution Control Board, U.P. Pollution Control Board, shall be complied with.
- 27 The industry shall ensure to comply with the provisions of the charter issued by CPCB on corporate responsibility for Environmental Protection.
- 28 The industry shall comply with the Plastic Waste Rules, 2016.
- 29 The industry shall submit on site disaster management plan.
- 30 The industry shall provide copy of records of Rectified Spirit, Extra Neutral Alcohol, Ethanol and Absolute Alcohol production, spent wash generation (namely weak spent, strong spent wash) details of MEE operations, mass flow meter reading connected with CPCB server etc. on monthly basis (by 10th of every month) to CPCB/UPPCB.

31 The storage facility provided for spent wash shall be properly lined and made impermeable and the storage capacity at any stage shall not exceed 07 days equivalent of production. The details of the spent wash storage shall be sent to the Board monthly.

32 The industry shall provided adequate arrangement for control of odour nuisance. All internal roads shall be made pucca. Industry shall maintain good housekeeping within factory premises, around effluent treatment facilities etc.

33 The industry will strictly comply with the provisions of Hazardous and other waste (Management & Transboundary Movement) Rules, 2016 will be complied. Generated hazardous waste will be disposed through authorized TSDF and record will be sent to this office in Form-10.

34 Analysis report from recognized laboratory for Solid concentration at inlet and outlet of MEE should be submitted to the Board within one month from the date of issue of this certificate.

35 If closure order is issued by CPCB or UPPCB against any defaulting unit, then CTO issued earlier will remain suspended during the closure period and after ensuring the compliance and after revocation of closure order, the CTO will automatically be effective from the date of issuance of closure order revocation, with additional conditions mentioned in the closure revocation order.

36 This certificate shall be valid from the date of issuance of this certificate.

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.

Chief Environmental Officer, Circle-5, UPPCB.

Copy to:

Regional Officer, UPPCB, Lucknow.

Chief Environmental Officer, Circle-5, UPPCB.



UTTAR PRADESH POLLUTION CONTROL BOARD

TC-12V, Vibhuti Khand, Gomti Nagar, Lucknow-226010

Ref. No : 11561/UPPCB/Lucknow(UPPCBRO)/HWM/LAKHIMPUR KHIRI/2020 Dated: 07/04/2020

To,

M/s GOBIND SUGAR MILLS LIMITED UNIT DISTILLERY

Vill - Khamaria Pandit, Aira, Estate District - Lakhimpur Kheri ,LAKHIMPUR KHIRI,262722

Tehsil :Dhaurahara

District :LAKHIMPUR KHIRI

Sub :- Authorisation issued under the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016

1. Number of authorization and date of issue 11561 and 07/04/2020 .
2. Reference of application (No. and date) 8062256 and 25/02/2020 .
3. Mr ALOK SAXENA of M/s GOBIND SUGAR MILLS LIMITED UNIT DISTILLERY is hereby granted an authorization based on the enclosed signed inspection report for generation, collection, utilization, storage and disposal or any other use of hazardous or other wastes or both on the premises situated at Vill - Khamaria Pandit, Aira Lakhimpur Khiri .

Details of Authorisation

| S No. | Category of Hazardous Waste as per the Schedules I,II and III of these rules | Authorised mode of disposal or recycling or utilization or co-processing, etc. | Quantity(ton/annum) |
|-------|--|--|---------------------|
| 1 | Used Oil and Grease (Sch.-1, Cat.-5.1) | To be burnt in Boiler after mixing with baggase. | 1.0 Ton/Annum |

1. The authorization shall be valid for a period of 06/04/2025 from the date of issue of this letter .
2. The authorization is subject to the following general and specific conditions (please specify any conditions that need to be imposed over and above general conditions, if any) .

A General Conditions of Authorization -

1. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under .
2. The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Board .
3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization .
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorisation .
5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time .
6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and penalty .

7. It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility .
8. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation .
9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained .
10. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation .
11. The importer or exporter shall bear the cost of Import or export and mitigation of damages if any
12. An application for the renewal of an authorisation shall be made as laid down under these Rules .
13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Changes or Central Pollution Control Board from time to time .
14. Annual return shall be filed by June 30th for the period ensuring 31st March of the year .

B Specific Conditions of Authorization

1. You are directed to install the display board outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including waste water and air emission and solid hazardous waste generated within the factory premises. Necessary compliance shall be sent within 15 days of receipt of this letter.
2. The wastes must be safely collected in leak proof containers and shall be duly marked in a manner suitable for handling, storage and transport and the packaging shall be easily visible and be able to withstand physical conditions and climatic factors. All hazardous waste containers / bags shall be provided with a general label. The storage area should be at an isolated spot in the premises and must be fenced, covered and duly marked.
3. The authorized person/agency shall ensure that no adverse impact on the air, soil and water including groundwater takes place due to activities for which authorization has been requested. Comprehensive safety measures must be followed in handling of wastes and the staff must be properly trained.
4. An application for the renewal of an authorization shall be made in form 1, before its expiry as laid down in rule. It is further brought to your notice that as per the order dated 14-11-2003 passed by the Hon'ble Supreme Court in W.P. (c) No. 657 of 1995, no industry covered under Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016 shall be allowed to operate without valid authorization. It is also provided in the same orders that industries which are not complying with the conditions of authorization shall not be allowed to operate. Hence in case you fail to apply for authorization, before its expiry or fail to comply with conditions of the earlier authorization issued to you, closure order shall be issued against your industry without any further notice.
5. The applicant must file returns on prescribed Form 4 along with a compliance report of this letter and should also maintain records on Form 3 and present it to Board's inspecting officials.
6. In case of occurrence of an accident, complete details on form must be sent to U.P. Pollution Control Board at the earliest along with details of mitigative and remedial measures taken.
7. The authorized person shall not receive, collect, or store any hazardous waste from any unauthorized occupier or generator of hazardous wastes. In case any hazardous wastes is sold to any

other reprocessing unit it must be ensured that such unit is fully complying with environmental requirements and has a valid authorization of the Board.

8. In no case any hazardous wastes shall be disposed off on land, in any drain or stream. All spillages of hazardous chemicals, used containers, of hazardous chemicals such as flammable corrosive, explosive and toxic nature must be safely collected and stored. Non-compatible wastes must be suitably and safely handled.

9. It is within the powers and functions of the U.P. Pollution Control Board to modify / revoke the terms and conditions of the authorization issued under the Rule – 7 of Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.

10. It is the mandatory duty of the authorized person to comply with the guidelines for transportation of hazardous waste in accordance with rule 18 of Hazardous and Other Waste (Management and Transboundary Movement) Rules, 2016.

11. It should be ensured that hazardous wastes shall be properly collected and packed in HDPE bags and then temporarily stored in a lined RCC tank/pit with suitable shed.

12. An ETP sludge/salt test report of a laboratory approved under E.P. Act shall be submitted along with compliance of this letter of this office.

13. Used oil shall be sold only to recyclers registered with U.P. Pollution Control Board. The record shall be maintained.

14. The occupier, transporter and operator of a facility shall be liable for damages caused to the environment resulting due to improper handling and disposal of hazardous waste listed in schedule 1,2, and 3 and shall be liable to pay a fine as levied by the State Pollution Control Board under the rules.

15. You shall have the valid membership of any common TSDF for S.L.F. (M/S U.P. Waste Management Project Kumbhi Kanpur Dehat or M/s Bharat Oil and Waste Management Ltd., Kumbhi, Akbarpur, Kanpur Dehat. permitted by U.P.P.C.B)., and start sending the stored hazardous wastes for final disposal to the TSDF and report back to U.P.P.C.B. with the required manifesto (document of proof) within three month of this letter. The authorized incinerator is with M/s Bharat Oil Company, Sahibabad, Ghaziabad for oily waste and paint sludge only.

16. You are required to store the hazardous waste safely and send it to TSDF/incinerator within Ninety days

17. This authorization is valid till the industry is having valid consent as per the provisions of Air (Prevention and Control of Pollution) Act 1981 and Water (Prevention and Control of Pollution) Act, 1974.

(**Authorized Signatory**)

UTTAR PRADESH POLLUTION CONTROL BOARD

Copy to: To the Regional Officer, U.P.Pollution Control Board, Lucknow for information and necessary action .

CEO/EE, I/C Circle_____



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

Ref No. - 127/UPHOC5/EIA/LAKHIMPUR KHIRI/2022

Dated:- 06/06/2022

To ,

Shri ALOK SAXENA

M/s Gobind Sugar Mills Limited Unit Distillery

Village Khamaria Pandit, Aira Estate, Tehsil Dhaurahara, District Kheri (U.P.), LAKHIMPUR

KHIRI,1

LAKHIMPUR KHIRI

Sub : Certificate of “No Increase in Pollution Load” in compliance of notification issued by Ministry of Environment Forest & Climate Change, Government of India, vide its notification no. S.O. 980(E) 2nd March, 2021

Sir.

Kindly refer to the application dt 06/06/2022 related to sector Distillery for obtaining “No Increase in Pollution Load Certificate” in compliance of notification issued by Ministry of Environment Forest & Climate Change, Government of India, vide its notification no. S.O. 980(E) 2nd March, 2021.

That Ministry of Environment Forest & Climate Change, Government of India, vide its notification no. S.O. 980(E) 2nd March, 2021 exempted the requirement for prior Environmental Clearance for cases of change in raw material mix without change in the quantity and pollution load as prescribed in the Environmental clearance of the project. The said provisions made in notification dated 2nd March, 2021 are as below

Existing projects (having Prior Environmental Clearance) with no increase in pollution loads: Any increase in production capacity in respect of processing or production or manufacturing sectors (listed against item numbers 2, 3, 4 and 5 in the Schedule to this notification) with or without any change in (i) raw material-mix or (ii) quantities within products or (iii) number of products including new products falling in the same category or (iv) configuration of the plant or process or operations in existing area or in area contiguous to the existing area (for which prior environmental clearance has been granted) shall be exempt from the requirement of Prior Environmental Clearance provided that there is no increase in pollution load (derived on the basis of such Prior Environmental Clearance)

In compliance of the provisions of the notification no. S.O. 980(E) 2nd March, 2021, the applicant has submitted the the following documents

1. “No Increase In Pollution Load” certificate from the Environmental Auditor or reputed institutions empanelled by the State Pollution Control Board or Pollution Control Committee or Central Pollution Control Board or Ministry of Environment, Forest and Climate Change
2. Last Consent to Operate certificate for the project or activity.
3. Online system generated acknowledgement of uploading of intimation and “No Increase In Pollution Load” certificate on PARIVESH Portal
4. Scan Copy of form only submitted for “No Increase In Pollution Load” certificate on PARIVESH Portal

After the examination of the documents submitted by the applicant “No Increase in Pollution Load Certificate” is hereby issued with the following observation and conditions with the approval of competent authority

Obervation and Conditions

The unit has proposed now to use B-Heavy Molasses/Sugar syrup as raw material for the proposed expansion 100 KLD to 125 KLD alcohol. Hence, the unit is in category-A with respect to Environment Clearance issued earlier.

Based on the documents submitted by the unit through MoEF and CC/NABET Accredited Consultant, Environmental and Technical Research Centre for expansion 100 KLD to 125 KLD alcohol due to change in alternative feed stock (B-Heavy Molasses/Sugar syrup), following observations are made:

Earlier Board has issued "No Increase in Pollution Load" certificate to the unit vide letter no. 127/UPHOC5/EIA/LAKHIMPUR KHIRI/2022 dated 06.06.2022 is hereby revoked.

(i) The Project under consideration is for expansion of Distillery unit by M/s Gobind Sugar Mills Limited, Unit – Distillery at village – KhamariaPandit, Aira Estate, Tehsil – Dhaurahara, District – LakhimpurKheri (UP), due to use of alternative Feed Stock (B heavy Molasses / Sugar Syrup) from 100 KLD to 125 KLD Rectified Spirit, Extra Neutral Alcohol, Ethanol and Absolute alcohol and 100 KLD using C-heavy molasses for the production of Rectified Spirit, Extra Neutral Alcohol, Ethanol and Absolute alcohol.

(ii) The raw material consumption will be reduced by 34 TPD during Mode 2 (B heavy Molasses) and reduce by 93 TPD during Mode 3 (Sugar Syrup) operation respectively against 25 % increase of production capacity as B-Heavy molasses and Sugar syrup has higher sugar percentage.

(iii) Unit has installed CPU of capacity 1250 cubic meter/day, Reverse Osmosis System to enable recycling of MEE condensate, boiler blow down etc. in order to fulfill the needs of additional fresh water.

(iv) Fresh water requirement will be reduced by 10 KLD during B Heavy Molasses based operation and during Sugar syrup based operation; fresh water requirement will be reduced by 63 KLD.

(v) Pollutant load like BOD, COD, TDS and TSS in effluent will be reduced during B Heavy Molasses and Sugar Syrup based operation.

(vi) Total BOD load during C Heavy Molasses based operation is 81900 kg/day which will be reduced to 63657.6 Kg/day during B Heavy Molasses based operation and 39000 kg/day during Sugar syrup based operation.

(vii) Total COD load during C Heavy Molasses based operation is 136500 kg/day which will be reduced to 106096 Kg/day during B Heavy Molasses based operation and 78000 kg/day during Sugar syrup based operation.

(viii) Total TDS load during C Heavy Molasses based operation is 91000 kg/day which will be reduced to 75069.9 Kg/day during B Heavy Molasses based operation and 60000 kg/day during Sugar syrup based operation.

(ix) Total TSS load during C Heavy Molasses based operation is 8400 kg/day which will be reduced to 6875.3 Kg/day during B Heavy Molasses based operation and 4800 kg/day during Sugar syrup based operation.

(x) Total generation of fly ash shall be reduced during Mode – 2 (B- heavy molasses) and Mode – 3 (Sugar syrup) based operation; reduction will be approx. – 10.43 TPD and 27.44 TPD respectively.

(xi) Spent wash generation will be reduced by 2 KLD during B Heavy Molasses based operation and reduced by 100 KLD during Sugar syrup based operation. Total Pollutant load during B heavy Molasses and sugar syrup based operation will be reduced in comparison to C heavy Molasses based operation.

(xii) Concentrated spent wash generation will be reduced during B - heavy Molasses based operation by 63 TPD and during Sugar Syrup based operation by 166 TPD.

(xiii) There shall not be any incremental rise with respect to air pollution in view of the fact that Air Pollution Control System (Bag filters) shall keep particulate matter below 150 mg/Nm³.

(xiv) Total emission load from the stack will be reduced with reduction in Slop quantity during B Heavy Molasses / Sugar Syrup based operation. Slop is having more solid and Sulphur content in comparison to Bagasse.

(xv) Total PM Load during C Heavy Molasses based operation is 345.46 kg/day which will be reduced to 290.68 Kg/day during B Heavy Molasses based operation and 256.22 kg/day during Sugar syrup based operation.

(xvi) Total NO₂ load during C Heavy Molasses based operation is 273.89 kg/day which will be reduced to 271.68 Kg/day during B Heavy Molasses based operation and 268.59 kg/day during Sugar syrup based operation.

(xvii) Total SO₂ load during C Heavy Molasses based operation is 159.03 kg/day which will be reduced to 123.69 Kg/day during B Heavy Molasses based operation and 106.02 kg/day during Sugar syrup based operation.

(xviii) Unit has adopted Concentration followed by Incineration technology to achieve Zero Liquid Discharge and same will be done for B- heavy Molasses / sugar syrup based operation. Thus resulting in no increment with respect to water pollution.

Hence, in view of the above facts, the UPPCB is of the view that the project of Ethanol by M/s Gobind Sugar Mills Limited, Unit – Distillery proposed expansion of distillery unit from 100 KLD to 125 KLD due to use of alternative feed stock B heavy Molasses or Sugar syrup shall result in "No Increase in Pollution Load", hence the project is recommended subject to the condition that the project is implemented strictly in accordance with the technical details submitted by the proponent before the Board. The Project Proponent shall ensure strict compliance of the following conditions:

1. Due to change in raw material from C-Heavy molasses to B-Heavy molasses/Sugar Syrup based expansion of Ethanol/RS/ENA production capacity from 100 KLD to 125 KLD shall result in "No Increase in Pollution load" subject to the condition that the project is implemented strictly in accordance with the technical details submitted by the Project Proponent in the Board.

2. The Project Proponent shall submit the validation report for B – Heavy Molasses / Sugar Syrup based 125 KLD Ethanol production from any reputed Institute such as NSI, Kanpur/VSI, Pune/any IIT within 03 months after starting B-Heavy molasses / Sugar syrup based operation.

3. The unit shall restrict the spent wash storage capacity to 07 days only (B-Heavy molasses / Sugar Syrup).

4. The unit should submit monthly data of following to UPPCB:

- a. Fresh water consumption
- b. Ethanol Production
- c. Spent wash generation
- d. Slop generation
- e. Condensate generation
- f. Feed quantity of slop into incinerator
- g. Yeast sludge generation
- h. Boiler ash generation
- i. Quantity of Spent lees generation, recycle/reuse and treatment in CPU
- j. Quantity of effluent received into CPU, details of reuse/recycle etc.

5. The unit shall ensure to obtain fresh consent (Water and Air) under the provision of Water (Prevention and control of Pollution) Act, 1974 and Air (Prevention and control of Pollution) Act, 1981 for the proposed production of 125 KLD Alcohol from UPPCB before starting production of Alcohol based on B-Heavy molasses/Sugar syrup.

6. The industry shall produce Alcohol 125 KLD maximum either use B-heavy Molasses or Sugar syrup.

Hence, in view of the above facts, the UPPCB is of the view that the project of Ethanol by M/s Gobind Sugar Mills Limited, Unit – Distillery proposed expansion of distillery unit from 100 KLD to 125 KLD due to use of alternative feed stock B heavy Molasses or Sugar syrup shall result in "No

Increase in Pollution Load" subject to the condition that the project is implemented strictly in accordance with the technical details submitted before the Board.

In view of the conclusion and remarks made by the Board, the unit is hereby directed to apply afresh for obtaining fresh Consent to Operate under the provisions of Water (Prevention and Control of Pollution) Act, 1974 as amended and Air (Prevention and Control of Pollution) Act, 1981 for the proposed production of 125 KLD Rectified Spirit/Extra Neutral Alcohol/Absolute Alcohol based on B-Heavy molasses/Sugar syrup and also to comply with the conditions as above.

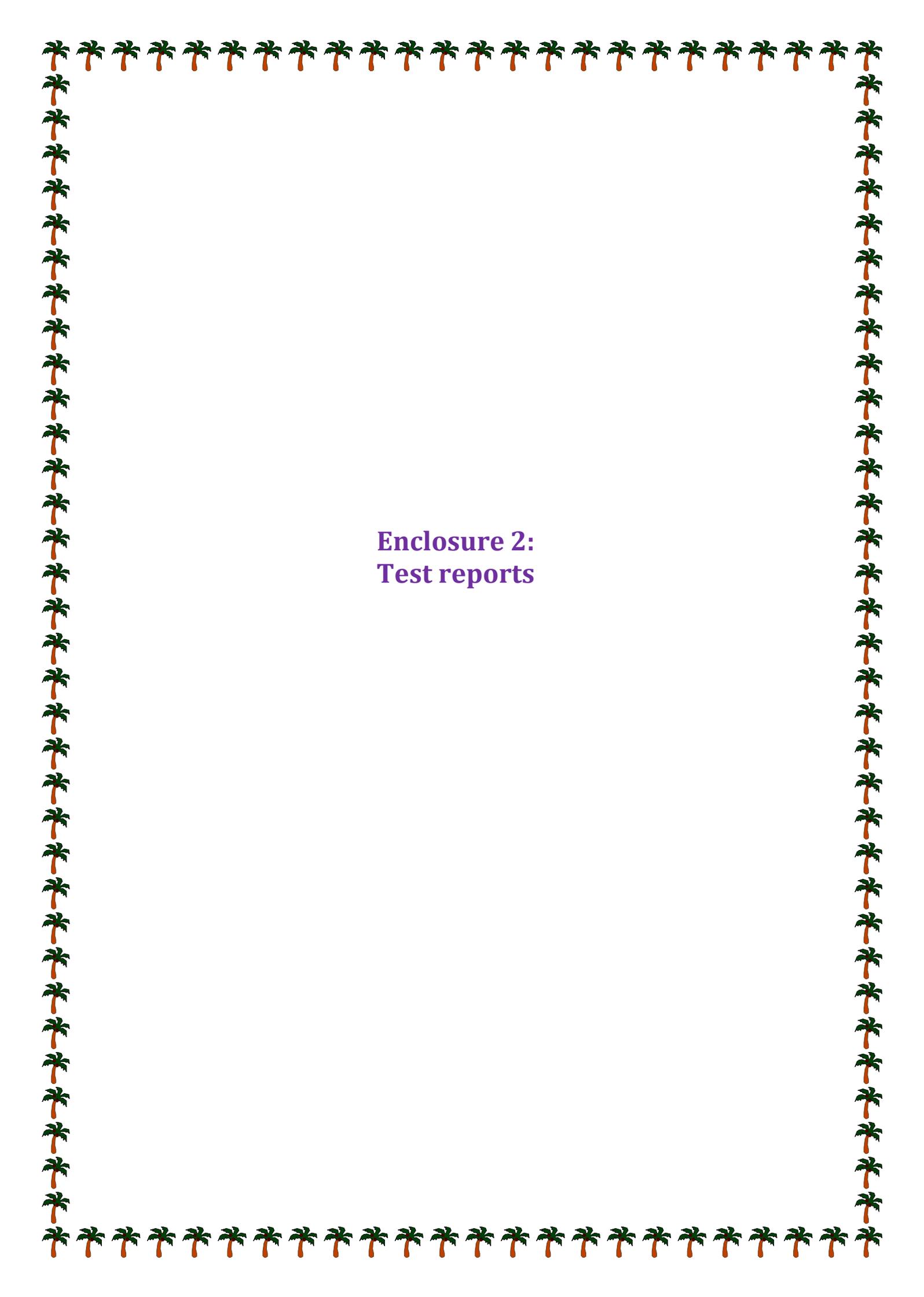
This letter is issued with prior approval of competent authority.

Chief Environmental Officer
Chief Environmental Officer, Circle-5, UPPCB.

Copy
:

Regional Officer, UPPCB, Lucknow.

Chief Environmental Officer
Chief Environmental Officer, Circle-5, UPPCB.

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**Enclosure 2:
Test reports**



ENVIRONMENTAL AND TECHNICAL RESEARCH CENTRE

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

Email : ETRCLTH@YAHOO.IN, Web: www.etrccindia.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/PM14/TES-REP/FT/17

TEST REPORT WATER ANALYSIS

| | |
|--|--|
| Test Report Ref No. ETRC/EPA/6062/2022 | Date of Report: 04/04/2022 |
| Name /Address/Type of Industry | M/s Gobind Sugar Mills Limited Unit: Distillery Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahra District: Lakhimpur Kheri (U.P.) - 262722 |

SAMPLE DETAILS

| | | | | | |
|---|----------------------|--------------|---|---------------------|---------------|
| 1 | Water/ Waste Water | Ground Water | 5 | Packing Condition | Sealed |
| 2 | Sample Description | Borewell | 6 | Sample Collected By | Industry Self |
| 3 | Sample received date | 01.04.2022 | 7 | Analysis Start Date | 01.04.2022 |
| 4 | Sample Quantity | 5.0 liters | 8 | Analysis End Date | 04.04.2022 |

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 | 402.5 | 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 | 59.2 | 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 | 32.0 | 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⁻ | 26.4 | 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/EPA/6062/2022

| | | | | | | | |
|-----------------------------------|-----------------|------------|---|--------|--------------------------------------|--|---------------|
| 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) | 0.07 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.54 | 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. 2017-3120 B (ICP-OES) | 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.
- 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: 2/261, Vishwas Khand, Gomti Nagar, Lucknow- 226 010 (U.P.)

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

ETRC/PM14/TEST-REP/FT/17

TEST REPORT WATER ANALYSIS

| | |
|--|--|
| Test Report Ref No. ETRC/EPA/6362/2022 | Date of Report: 13/05/2022 |
| Name /Address/Type of Industry | M/s Gobind Sugar Mills Limited Unit: Distillery Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahra District: Lakhimpur Kheri (U.P.) - 262722 |

SAMPLE DETAILS

| | | | | | |
|---|----------------------|--------------|---|---------------------|---------------|
| 1 | Water/ Waste Water | Ground Water | 5 | Packing Condition | Sealed |
| 2 | Sample Description | Borewell | 6 | Sample Collected By | Industry Self |
| 3 | Sample received date | 09.05.2022 | 7 | Analysis Start Date | 09.05.2022 |
| 4 | Sample Quantity | 5.0 liters | 8 | Analysis End Date | 13.05.2022 |

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 | 410.8 | 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 | 34.02 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl ⁻ B | 36.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F ⁻ C | 0.38 | 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 | 300.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 272.0 | 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/6362/2022

| | | | | | | | |
|-----------------------------------|-----------------|------------|---|--------|--------------------------------------|--|---------------|
| 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) | 0.03 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.49 | 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. 2017-3120 B (ICP-OES) | 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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Authorized Signatory
(Sandeep Kr Verma)
Lab-Incharge




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(Ritu Garg)
QM



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ETRC/PM14/TEST-REP/FT/17

TEST REPORT WATER ANALYSIS

| | |
|--|--|
| Test Report Ref No. ETRC/EPA/6496/2022 | Date of Report: 09/06/2022 |
| Name /Address/Type of Industry | M/s Gobind Sugar Mills Limited Unit: Distillery Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahra District: Lakhimpur Kheri (U.P.) - 262722 |

SAMPLE DETAILS

| | | | | | |
|---|----------------------|--------------|---|---------------------|---------------|
| 1 | Water/ Waste Water | Ground Water | 5 | Packing Condition | Sealed |
| 2 | Sample Description | Borewell | 6 | Sample Collected By | Industry Self |
| 3 | Sample received date | 04.06.2022 | 7 | Analysis Start Date | 04.06.2022 |
| 4 | Sample Quantity | 5.0 liters | 8 | Analysis End Date | 08.06.2022 |

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 | 392.6 | 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 | 34.02 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl ⁻ B | 34.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F ⁻ C | 0.41 | 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 | 292.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 276.0 | 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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| | | | | | | | |
|-----------------------------------|-----------------|----------------|--|--------|---|---|---------------|
| 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) | 0.02 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.28 | 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. 2017-3120 B (ICP-OES) | 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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Authorized Signatory
(Sandeep Kr Verma)
Lab-Incharge




Authorized Signatory
(Ritu Garg)
QM



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ETRC/PM14/TEST-REP/FT/37

TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

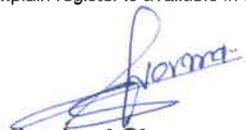
| | | | |
|---|---|---|--|
| Test Report Ref No. ETRC/EPA/6653/2022 | | Date of Report: 14/07/2022 | |
| Name /Address/Type of Industry | | M/s Gobind Sugar Mills Limited Unit: Distillery Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahra District: Lakhimpur Kheri (U.P.) - 262722 | |
| Monitored by | | ETRC, Lucknow | |
| Location of Sampling point | | Near Main Gate (Factory) | |
| Sr. No. | GENERAL OBSERVATIONS | DETAILS-PM₁₀ | DETAILS-PM_{2.5} |
| 1(a) | Weather conditions | Clear | Clear |
| (b) | Wind direction | West to East | West to East |
| (c) | Average humidity (%) | 56 | 56 |
| (d) | Average ambient temperature (°C) | 28 | 28 |
| (e) | Time of Sampling Started (Hours) | 10:12 am (06.07.2022) | 10:12 am (06.07.2022) |
| (f) | Time of Sampling completed (Hours) | 09:59 am (07.07.2022) | 09:59 am (07.07.2022) |
| (g) | Total time of sampling (Minutes) | 24 hour (1421 minutes) | 24 hour (1421 minutes) |
| 2 | Average sampling rate for PM (m ³ /minute) | 1.160 | 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">• 1648.128• 710.4 | <ul style="list-style-type: none">• 23.672 |

TEST RESULT

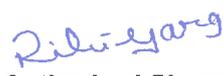
| Sr. No. | Particulars | Protocol | Unit | Result | Range of testing /limit of detection | Standard as per NAAQS; dated 18/11/ 2009 |
|---------|--|--|-------------------|--------|--------------------------------------|--|
| 1 | Particulate matters size less than 10 µm (PM ₁₀) | IS: 5182 (Part - 23): 2006 Reaffirmed: 2017 | µg/m ³ | 82.5 | 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 | 52.38 | 2.0 - 500 | For 24 hour =60 |
| 3 | Sulphur Dioxide (SO ₂) | IS: 5182 (Part - 02): 2001 Reaffirmed: 2017 | µg/m ³ | 14.15 | 5.0 - 1050 | For 24 hour =80 |
| 4 | Oxides of Nitrogen (NO _x) | IS: 5182 (Part - 06): 2006 Reaffirmed: 2017 | µg/m ³ | 20.08 | 6.0 - 750 | For 24 hour =80 |

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TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|--|---|--|---------------------------|
| Test Report Ref No. ETRC/EPA/6654/2022 | | Date of Report: 14/07/2022 | |
| Name /Address/Type of Industry | | M/s Gobind Sugar Mills Limited Unit: Distillery Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahra District: Lakhimpur Kheri (U.P.) - 262722 | |
| Monitored by | | ETRC, Lucknow | |
| Location of Sampling point | | Village: Khamaria Pandit | |
| 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 (%) | 56 | 56 |
| (d) | Average ambient temperature (°C) | 28 | 28 |
| (e) | Time of Sampling Started (Hours) | 10:25 am (06.07.2022) | 10:25 am (06.07.2022) |
| (f) | Time of Sampling completed (Hours) | 10:06 am (07.07.2022) | 10:06 am (07.07.2022) |
| (g) | Total time of sampling (Minutes) | 24 hour (1417 minutes) | 24 hour (1417 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 | | |
| | • PM (m ³) | • 1622.007 | • 23.605 |
| | • GAS (liter) | • 708.3 | |

TEST RESULT

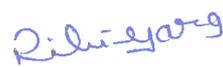
| Sr. No. | Particulars | Protocol | Unit | Result | Range of testing /limit of detection | Standard as per NAAQS; dated 18/11/2009 |
|---------|--|--|-------------------|--------|--------------------------------------|---|
| 1 | Particulate matters size less than 10 µm (PM ₁₀) | IS: 5182 (Part - 23): 2006 Reaffirmed: 2017 | µg/m ³ | 80.1 | 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 | 49.14 | 2.0 - 500 | For 24 hour =60 |
| 3 | Sulphur Dioxide (SO ₂) | IS: 5182 (Part - 02): 2001 Reaffirmed: 2017 | µg/m ³ | 12.57 | 5.0 - 1050 | For 24 hour =80 |
| 4 | Oxides of Nitrogen (NO _x) | IS: 5182 (Part - 06): 2006 Reaffirmed: 2017 | µg/m ³ | 17.25 | 6.0 - 750 | For 24 hour =80 |

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

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TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

| Test Report Ref No. ETRC/EPA/6655/2022 | | Date of Report: 14/07/2022 | |
|--|---|--|---------------------------|
| Name /Address/Type of Industry | | M/s Gobind Sugar Mills Limited Unit: Distillery Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahra District: Lakhimpur Kheri (U.P.) - 262722 | |
| Monitored by | | ETRC, Lucknow | |
| Location of Sampling point | | Village: Samalsa | |
| 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 (%) | 55 | 55 |
| (d) | Average ambient temperature (°C) | 28 | 28 |
| (e) | Time of Sampling Started (Hours) | 10:06 am (07.07.2022) | 10:06 am (07.07.2022) |
| (f) | Time of Sampling completed (Hours) | 09:56 am (08.07.2022) | 09:56 am (08.07.2022) |
| (g) | Total time of sampling (Minutes) | 24 hour (1408 minutes) | 24 hour (1408 minutes) |
| 2 | Average sampling rate for PM (m ³ /minute) | 1.135 | NA |
| 3 | Average sampling rate for gas (LPM) | 0.5 | NA |
| 4 | TOTAL VOLUME OF AIR SAMPLED | | |
| | • PM (m ³) | • 1597.626 | • 23.452 |
| | • GAS (liter) | • 703.8 | |

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: 2017 | µg/m ³ | 78.5 | 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 | 48.61 | 2.0 - 500 | For 24 hour =60 |
| 3 | Sulphur Dioxide (SO ₂) | IS: 5182 (Part - 02): 2001 Reaffirmed: 2017 | µg/m ³ | 12.35 | 5.0 - 1050 | For 24 hour =80 |
| 4 | Oxides of Nitrogen (NO _x) | IS: 5182 (Part - 06): 2006 Reaffirmed: 2017 | µg/m ³ | 18.58 | 6.0 - 750 | For 24 hour =80 |

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TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|--|---|--|---------------------------|
| Test Report Ref No. ETRC/EPA/6656/2022 | | Date of Report: 14/07/2022 | |
| Name /Address/Type of Industry | | M/s Gobind Sugar Mills Limited Unit: Distillery Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahra District: Lakhimpur Kheri (U.P.) - 262722 | |
| Monitored by | | ETRC, Lucknow | |
| Location of Sampling point | | Village: Samardahari | |
| 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 (%) | 55 | 55 |
| (d) | Average ambient temperature (°C) | 28 | 28 |
| (e) | Time of Sampling Started (Hours) | 10:22 am (07.07.2022) | 10:22 am (07.07.2022) |
| (f) | Time of Sampling completed (Hours) | 10:09 am (08.07.2022) | 10:09 am (08.07.2022) |
| (g) | Total time of sampling (Minutes) | 24 hour (1403 minutes) | 24 hour (1403 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) | • 1620.927 | • 23.382 |
| | • GAS (liter) | • 701.7 | |

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: 2017 | µg/m ³ | 73.6 | 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 | 45.33 | 2.0 - 500 | For 24 hour =60 |
| 3 | Sulphur Dioxide (SO ₂) | IS: 5182 (Part - 02): 2001 Reaffirmed: 2017 | µg/m ³ | 12.87 | 5.0 - 1050 | For 24 hour =80 |
| 4 | Oxides of Nitrogen (NO _x) | IS: 5182 (Part - 06): 2006 Reaffirmed: 2017 | µg/m ³ | 16.84 | 6.0 - 750 | For 24 hour =80 |

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

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(Sandeep Kr Verma)
Lab-Incharge




Authorized Signatory
(Ritu Garg)
QM



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ETRC/PM14/TEST-REP/FT/36

TEST REPORT STACK EMISSION MONITORING AND ANALYSIS REPORT

| | | |
|--|-------------------------------------|--|
| Test Report Ref No. ETRC/EPA/6657/2022 | | Date of Report: 14/07/2022 |
| Name /Address/Type of Industry | | M/s Gobind Sugar Mills Limited Unit: Distillery Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahra District: Lakhimpur Kheri (U.P.) - 262722 |
| Monitored by | | ETRC, Lucknow |
| Sr. No. | GENERAL INFORMATION | DETAILS |
| 1.(a) | Date of monitoring | 07.07.2022 |
| (b) | Stack material | RCC |
| (c) | Height of stack from ground level | 80 meter |
| (d) | Source to which stack attached | Boiler (35 TPH) |
| (e) | No of Source attached with capacity | 01 No |
| (f) | Type and quantity of fuel used | Bagasse & Slop |
| (g) | Details of APCS installed | Bag Filters |
| 2. | PARAMETERS | VALUES |
| (a) | Ambient temperature (°C) | 34.0 |
| (b) | Stack gas temperature (°C) | 131.0 |
| (c) | Stack gas velocity (m/sec) | 11.43 |
| (d) | Flow rate (LPM) | 16 |
| (e) | Sampling time (minutes) | 66 |
| (f) | Volume of air sampled (liters) | 1056 |

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 | 47.2 | 2.0 - 1000 | 150 |

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

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TEST REPORT AMBIENT NOISE MONITORING AND ANALYSIS REPORT

| | | | |
|---|----------------------------|---|--|
| Test Report Ref No. ETRC/EPA/6658/2022 | | Date of Report: 14/07/2022 | |
| Name /Address/Type of Industry | | M/s Gobind Sugar Mills Limited Unit: Distillery Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahra District: Lakhimpur Kheri (U.P.) - 262722 | |
| Monitored by | | ETRC, Lucknow | |
| Sr. No. | GENERAL INFORMATION | DETAILS | |
| (a) | Date of monitoring | 07/07/2022 (6:00 AM) to 08/07/2022 (6:00 AM) | |
| (b) | Sample Description | Ambient Noise | |
| (c) | Sampling Location | Near Admin Building | |
| (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) | 62.48 | 50.08 |

| 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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ETRC/PM14/TE/REP/FT/17

TEST REPORT WATER ANALYSIS

| | |
|--|--|
| Test Report Ref No. ETRC/EPA/6659/2022 | Date of Report: 14/07/2022 |
| Name /Address/Type of Industry | M/s Gobind Sugar Mills Limited Unit: Distillery Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahra District: Lakhimpur Kheri (U.P.) - 262722 |

SAMPLE DETAILS

| | | | | | |
|---|----------------------|--------------|---|---------------------|---------------|
| 1 | Water/ Waste Water | Ground Water | 5 | Packing Condition | Sealed |
| 2 | Sample Description | Borewell | 6 | Sample Collected By | ETRC, Lucknow |
| 3 | Sample received date | 08.07.2022 | 7 | Analysis Start Date | 08.07.2022 |
| 4 | Sample Quantity | 5.0 liters | 8 | Analysis End Date | 13.07.2022 |

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 | 384.0 | 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 | 31.10 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl ⁻ B | 36.0 | 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⁻ | 28.4 | 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 | 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/6659/2022

| | | | | | | | |
|-----------------------------------|-----------------|------------|---|--------|--------------------------------------|--|---------------|
| 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) | 0.05 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.43 | 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. 2017-3120 B (ICP-OES) | 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 | |

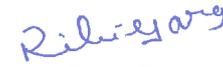
BDL=Below Detection Limit

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ETRC/PM14/TEST-REP/FT/38

TEST REPORT SOIL ANALYSIS

| | |
|--|--|
| Test Report Ref No. ETRC/EPA/6660/2022 | Date of Report: 14/07/2022 |
| Name /Address/Type of Industry | M/s Gobind Sugar Mills Limited Unit: Distillery Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahra District: Lakhimpur Kheri (U.P.) - 262722 |

SAMPLE DETAILS

| | | | | | |
|---|----------------------|-----------------------|---|---------------------|---------------|
| 1 | Sampling Location | Near Factory Premises | 5 | Packing Condition | Sealed |
| 2 | Sample Description | Soil Sample | 6 | Sample Collected By | ETRC, Lucknow |
| 3 | Sample received date | 08.07.2022 | 7 | Analysis Start Date | 08.07.2022 |
| 4 | Sample Quantity | 500 gms | 8 | Analysis End Date | 13.07.2022 |

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: 2016 | 7.2 | 1 - 14 |
| 2 | Electrical Conductivity | (µmhos/cm) | IS: 14767:2000, Reaffirmed 2016 | 308.0 | 1 - 40000 |
| 3 | Moisture content | % | IS: 2720 (Part -2): 1973 Reaffirmed: 2015 | 4.15 | 1.0 - 50 |
| 4 | Sulphur | Kg/Hec | IS: 14685: 1999 Reaffirmed: 2014 | 15.22 | 5.0 - 100 |
| 5 | Boron | mg/kg | ETRC/ LABSOPS/06, ISSUE NO.1 Dated 10.08.2015 | BDL | 4.0 - 100 |
| 6 | Copper | mg/kg | ETRC/ LABSOPS/07, ISSUE NO.1 Dated 10.08.2015 | 0.40 | 0.3 - 500 |
| 7 | Zinc | mg/kg | ETRC/ LABSOPS/08, ISSUE NO.1 Dated 10.08.2015 | 8.46 | 1.0 - 500 |
| 8 | Iron | mg/kg | ETRC/ LABSOPS/09, ISSUE NO.1 Dated 10.08.2015 | 91.0 | 5.0 - 500 |
| 9 | Manganese | mg/kg | ETRC/ LABSOPS/10, ISSUE NO.1 Dated 10.08.2015 | 10.6 | 5.0 - 500 |

BDL= Below Detection Limit

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TEST REPORT SOIL ANALYSIS

| | |
|--|--|
| Test Report Ref No. ETRC/EPA/6661/2022 | Date of Report: 14/07/2022 |
| Name /Address/Type of Industry | M/s Gobind Sugar Mills Limited Unit: Distillery Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahra District: Lakhimpur Kheri (U.P.) - 262722 |

SAMPLE DETAILS

| | | | | | |
|---|----------------------|-----------------|---|---------------------|---------------|
| 1 | Sampling Location | Khamaria Pandit | 5 | Packing Condition | Sealed |
| 2 | Sample Description | Soil Sample | 6 | Sample Collected By | ETRC, Lucknow |
| 3 | Sample received date | 08.07.2022 | 7 | Analysis Start Date | 08.07.2022 |
| 4 | Sample Quantity | 500 gms | 8 | Analysis End Date | 13.07.2022 |

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: 2016 | 7.3 | 1 - 14 |
| 2 | Electrical Conductivity | (µmhos/cm) | IS: 14767:2000, Reaffirmed 2016 | 318.0 | 1 - 40000 |
| 3 | Moisture content | % | IS: 2720 (Part -2): 1973 Reaffirmed: 2015 | 4.18 | 1.0 - 50 |
| 4 | Sulphur | Kg/Hec | IS: 14685: 1999 Reaffirmed: 2014 | 14.05 | 5.0 - 100 |
| 5 | Boron | mg/kg | ETRC/ LABSOPS/06, ISSUE NO.1 Dated 10.08.2015 | BDL | 4.0 - 100 |
| 6 | Copper | mg/kg | ETRC/ LABSOPS/07, ISSUE NO.1 Dated 10.08.2015 | 0.39 | 0.3 - 500 |
| 7 | Zinc | mg/kg | ETRC/ LABSOPS/08, ISSUE NO.1 Dated 10.08.2015 | 9.14 | 1.0 - 500 |
| 8 | Iron | mg/kg | ETRC/ LABSOPS/09, ISSUE NO.1 Dated 10.08.2015 | 84.2 | 5.0 - 500 |
| 9 | Manganese | mg/kg | ETRC/ LABSOPS/10, ISSUE NO.1 Dated 10.08.2015 | 9.36 | 5.0 - 500 |

BDL= Below Detection Limit

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ETRC/PM14/TEST-REP/FT/17

TEST REPORT WATER ANALYSIS

| | |
|--|--|
| Test Report Ref No. ETRC/1908/10522/2022 | Date of Report: 19/08/2022 |
| Name /Address/Type of Industry | M/s Gobind Sugar Mills Limited Unit: Distillery Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahra District: Lakhimpur Kheri (U.P.) - 262722 |

SAMPLE DETAILS

| | | | | | |
|---|----------------------|--------------|---|---------------------|---------------|
| 1 | Water/ Waste Water | Ground Water | 5 | Packing Condition | Sealed |
| 2 | Sample Description | Borewell | 6 | Sample Collected By | Industry Self |
| 3 | Sample received date | 13.08.2022 | 7 | Analysis Start Date | 13.08.2022 |
| 4 | Sample Quantity | 5.0 liters | 8 | Analysis End Date | 18.08.2022 |

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 | 396.4 | 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 | 33.04 | 0.1 - 200 | 30 | 100 |
| 10 | Chloride as Cl | mg/l | APHA 23 rd Ed. 2017-4500-Cl ⁻ B | 40.0 | 2.0 - 2000 | 250 | 1000 |
| 11 | Fluoride as F | mg/l | APHA 23 rd Ed. 2017-4500 F ⁻ C | 0.40 | 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⁻ | 34.0 | 1.0 - 500 | 200 | 400 |
| 16 | Alkalinity as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2320 B | 300.0 | 2.0 - 1000 | 200 | 600 |
| 17 | Total Hardness as CaCO ₃ | mg/l | APHA 23 rd Ed. 2017-2340 C | 280.0 | 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 |

Page 1 of 2



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Test Report Ref No. ETRC/1908/10522/2022

| | | | | | | | |
|-----------------------------------|-----------------|------------|---|--------|--------------------------------------|--|---------------|
| 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) | 0.05 | 0.02 - 5.0 | 0.1 | 0.3 |
| 23 | Zinc as Zn | mg/l | APHA 23 rd Ed. 2017-3120 B (ICP-OES) | 0.55 | 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. 2017-3120 B (ICP-OES) | 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.
- 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: 2/261, Vishwas Khand, Gomti Nagar, Lucknow- 226 010 (U.P.)

Email : ETRCLTH@YAHOO.IN, Web: www.etrccindia.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/PM14/TES-REP/FT/17

TEST REPORT WATER ANALYSIS

| | |
|--|--|
| Test Report Ref No. ETRC/1309/10523/2022 | Date of Report: 13/09/2022 |
| Name /Address/Type of Industry | M/s Gobind Sugar Mills Limited Unit: Distillery Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahra District: Lakhimpur Kheri (U.P.) - 262722 |

SAMPLE DETAILS

| | | | | | |
|---|----------------------|--------------|---|---------------------|---------------|
| 1 | Water/ Waste Water | Ground Water | 5 | Packing Condition | Sealed |
| 2 | Sample Description | Borewell | 6 | Sample Collected By | Industry Self |
| 3 | Sample received date | 08.09.2022 | 7 | Analysis Start Date | 08.09.2022 |
| 4 | Sample Quantity | 5.0 liters | 8 | Analysis End Date | 12.09.2022 |

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 | 404.4 | 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 | 54.4 | 2.0 - 600 | 75 | 200 |
| 9 | Magnesium as Mg | mg/l | APHA 23 rd Ed. 2017-3500 Mg, B | 31.10 | 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 | 0.38 | 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 | 296.0 | 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 |



ENVIRONMENTAL AND TECHNICAL RESEARCH CENTRE

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

Email : ETRCLTH@YAHOO.IN, Web: www.etrccindia.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

Test Report Ref No. ETRC/1309/10523/2022

| | | | | | | | |
|-----------------------------------|-----------------|------------|---|--------|--------------------------------------|--|---------------|
| 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) | 0.39 | 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. 2017-3120 B (ICP-OES) | 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 | |

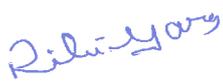
BDL=Below Detection Limit

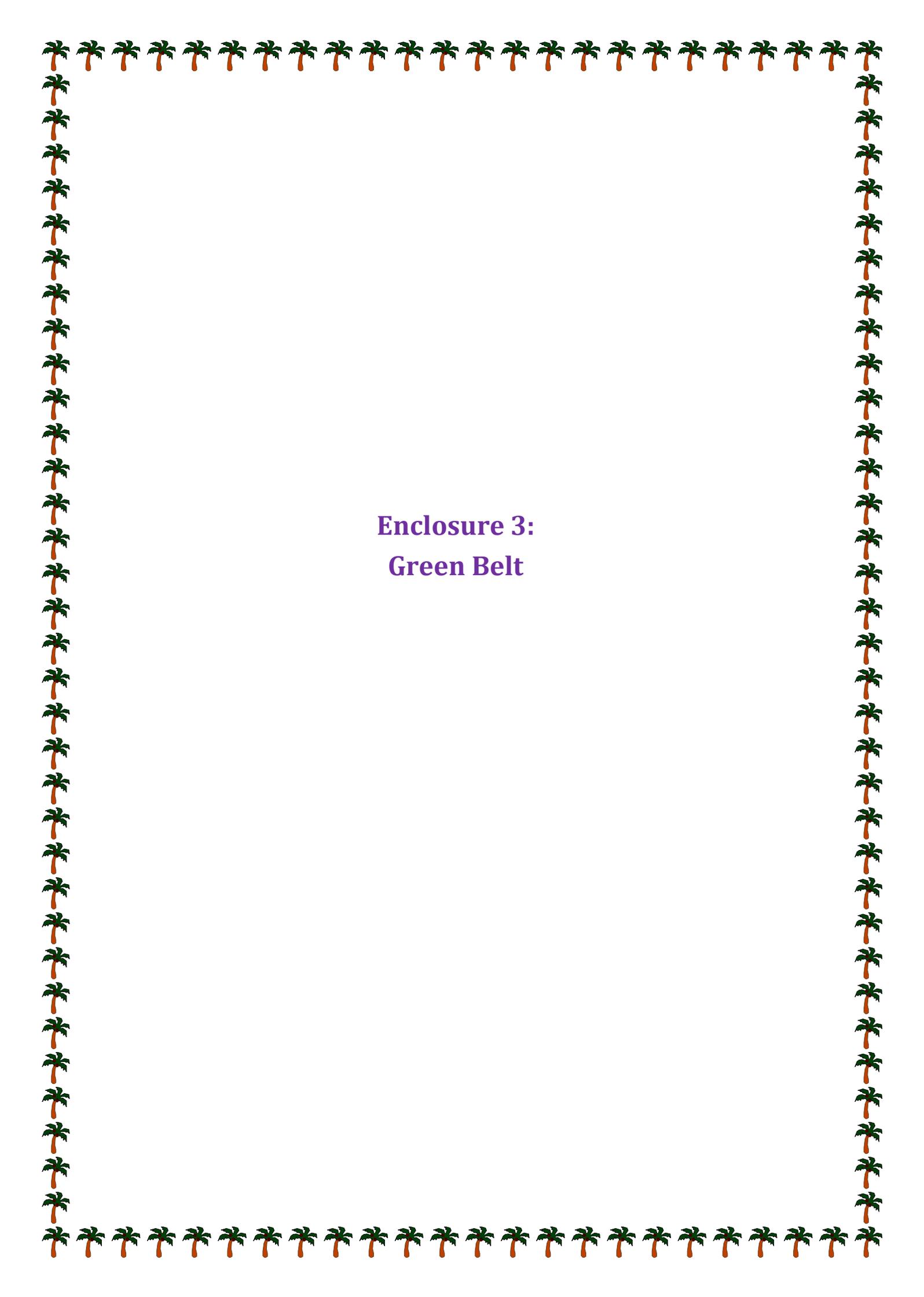
..... END OF REPORT.....

- 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.
- 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



**Enclosure 3:
Green Belt**

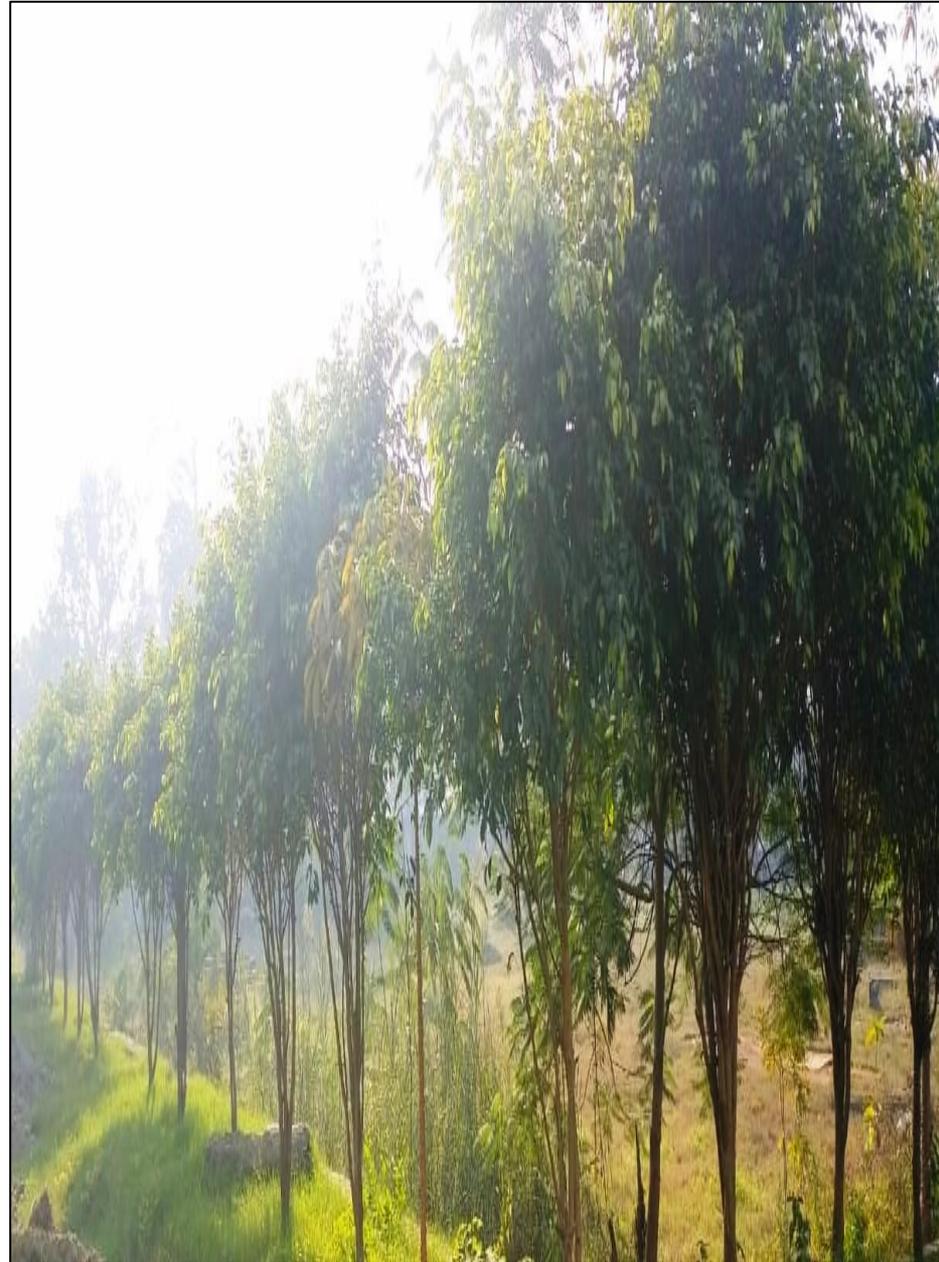
GREEN BELT



GREEN BELT



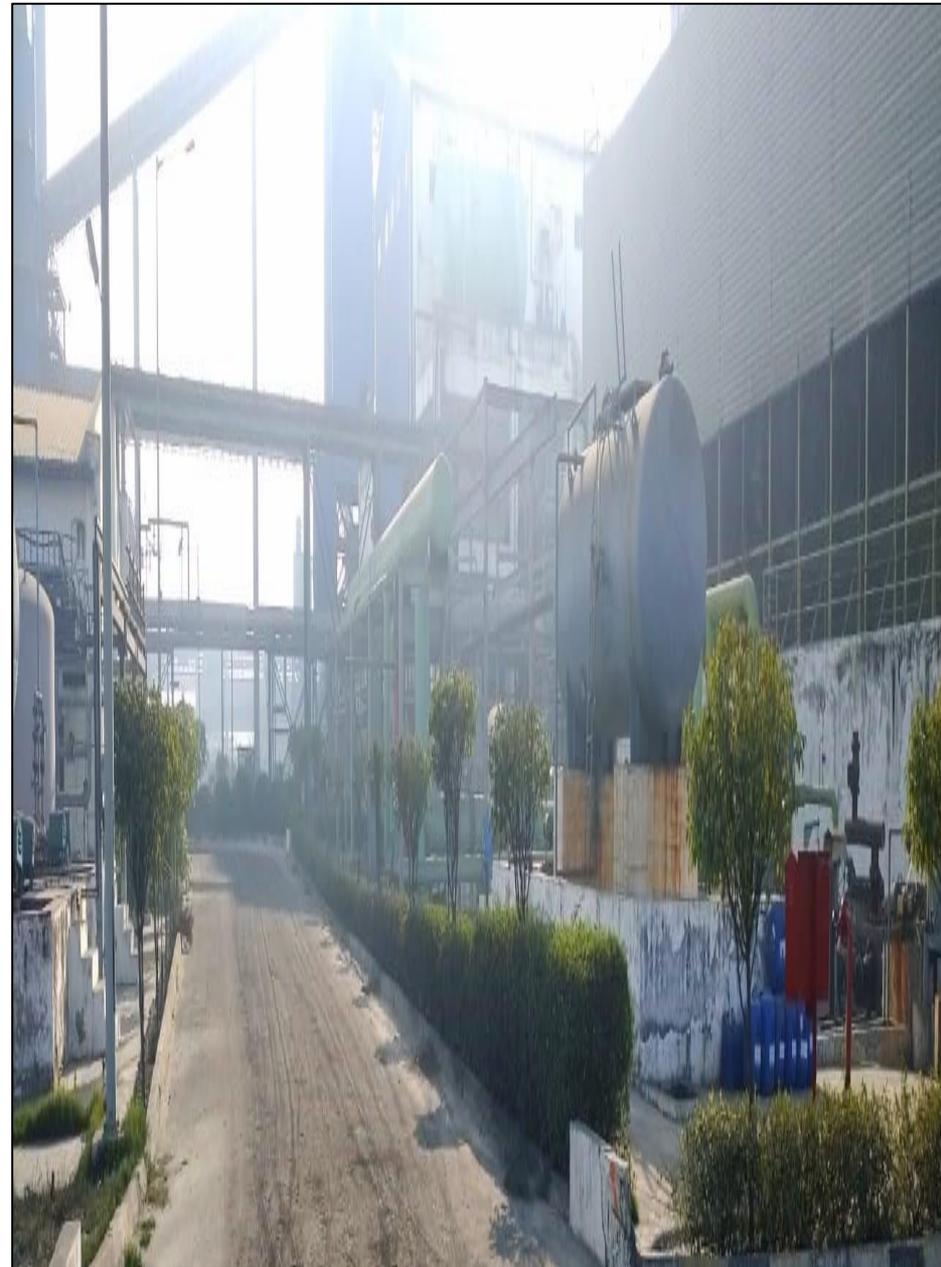
GREEN BELT



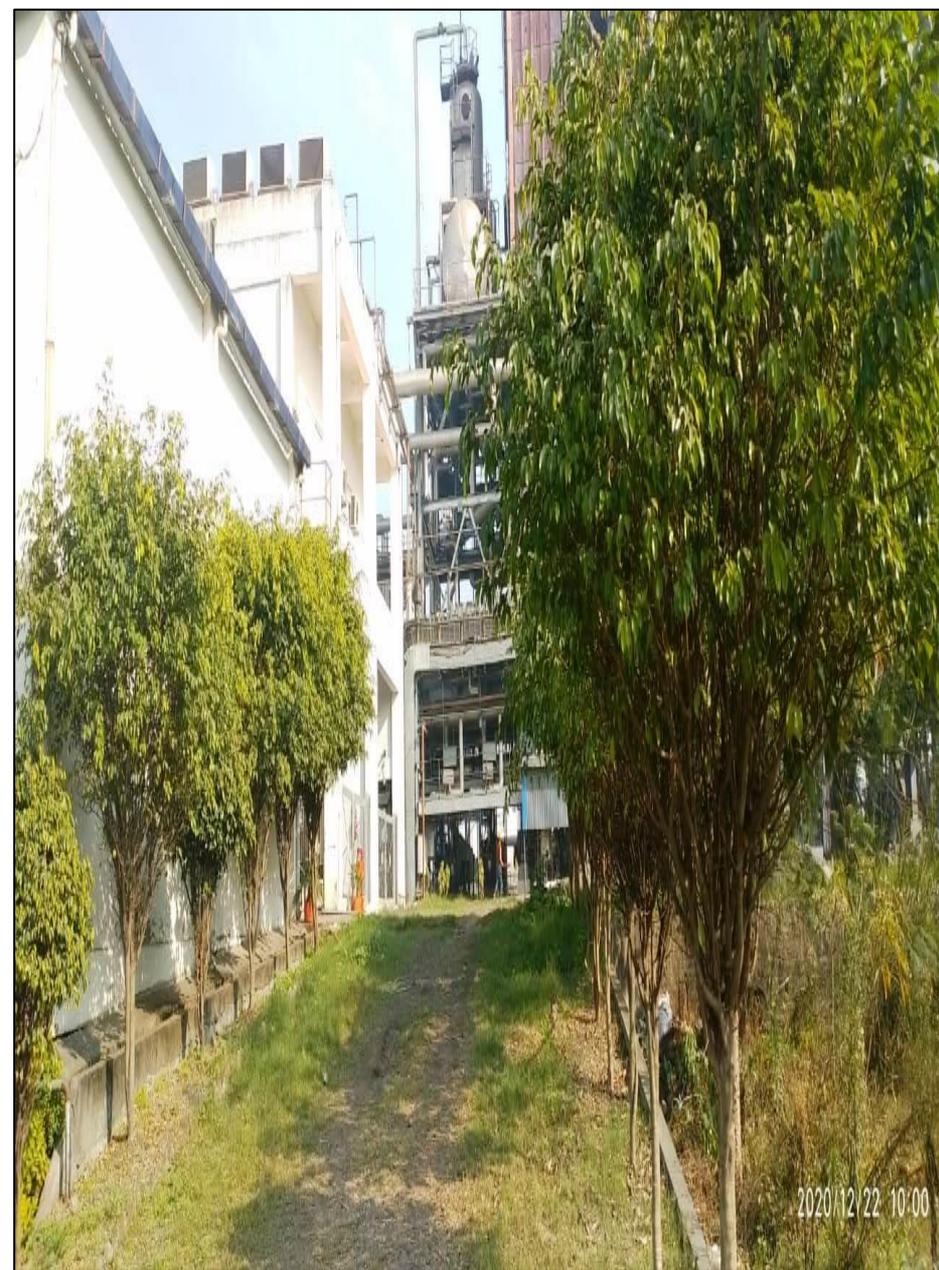
GREEN BELT



GREEN BELT



GREEN BELT



GREEN BELT



Plantation Green Belt



Plantation Green Belt



Plantation Green Belt



Plantation Green Belt



Plantation Green Belt



Plantation Green Belt

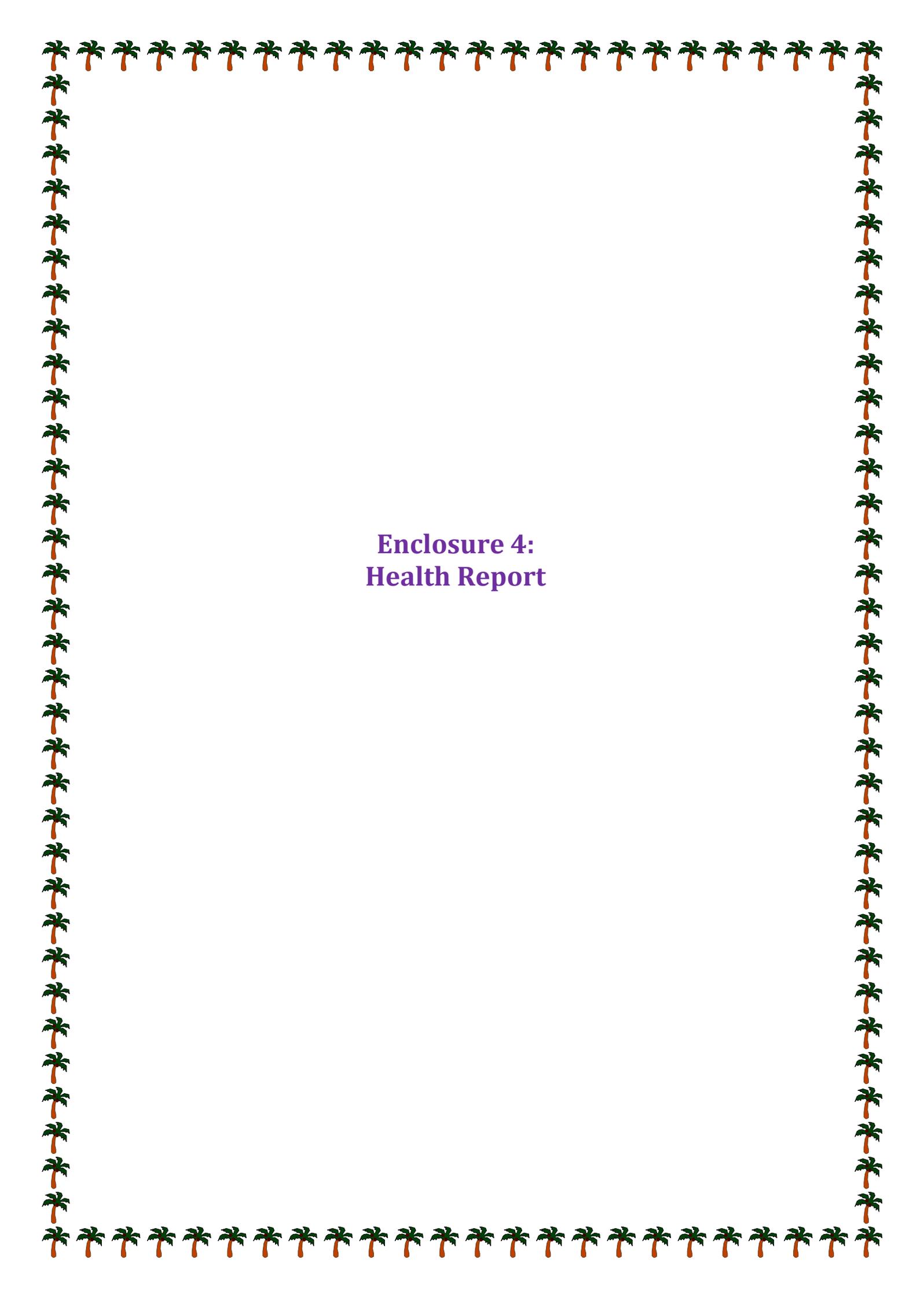


Plantation Green Belt



Plantation Green Belt



A decorative border of palm trees surrounds the page. The border consists of a top row of 20 palm trees, a bottom row of 20 palm trees, and two vertical columns of 20 palm trees each on the left and right sides, forming a rectangular frame.

**Enclosure 4:
Health Report**



Dated-.....

TO WHOM SO EVER IT MAY CONCERN

It is to certify that S.No 1 to 52 (List Attached) employed with M/S Gobind Sugar Mills Ltd., Aira Estate, Lakhimpur Kheri (U.P.) coming in direct contact of Distillery Division has been carefully examined by me .

Based on the medical examination conducted, they are found free from contagious/infectious/communicable diseases and all the person are fit to work at Distillery Division.

Name & Signature with seal

 **Dr. M. K. Gupta**

Reg. No.-H23293
Gobind Sugar Mills Ltd.
Registered Medical Officer

Encl: AA

GOBIND SUGAR MILLS LIMITED

Regd. Off: Birla Mill Complex, P.O. Birla Lines, G T Road, Near Clock Tower,
Kamla Nagar, North Delhi - 110007

Corp Off: 5th Floor, Tower A, Global Business Park, MG Road, Sector-26, Gurugram -122002, Haryana

Tel.: +91-124 - 482 7800, Fax: +91-124-421 2046, Email: ig.gsml@adventz.com

CIN No: L15421DL1952PLC354222, Website: www.gobindsugar.com

GOBIND SUGAR MILLS LIMITED : AIRA (LAKHIMPUR)

Health Examination List (Distillery)

| S.N. | Name Shri | Father Name | Age (in Yrs.) | (contiguous/infectious/communicable) Diseases Examined |
|------|-----------------------------|---------------------------|---------------|--|
| 1 | ALOK SAXENA | K.B. SAXENA | 58 | Not Found |
| 2 | DHARMENDRA ROY | GOPAL ROY | 54 | Not Found |
| 3 | DEVENDRA PRATAP SINGH YADAV | MAHAVIR SINGH YADAV | 55 | Not Found |
| 4 | SACHIDA NAND MISHRA | BINDESHWARI PRASAD MISHRA | 55 | Not Found |
| 5 | RAJESH KUMAR TRIPATHI | S.N TRIPATHI | 46 | Not Found |
| 6 | DILEEP KUMAR | JOKHU | 44 | Not Found |
| 7 | VINAY KUMAR AGRAHARI | SHEO POOJAN AGRAHARI | 40 | Not Found |
| 8 | RAJESH KUMAR SINGH | GIRIJA SHANKER SINGH | 38 | Not Found |
| 9 | SANJAY SINGH | RAM PRATAP SINGH | 35 | Not Found |
| 10 | AJAY KUMAR TIWARY | SHRI NATH TIWARY | 48 | Not Found |
| 11 | RAJ KISHOR PANDEY | RAJA RAM PANDEY | 49 | Not Found |
| 12 | BHARTENDU SINGH | RAM CHANDRA SINGH | 45 | Not Found |
| 13 | AJIT KUMAR TIWARI | SHAMBHU NATH TIWARI | 43 | Not Found |
| 14 | DIWAKAR NATH TIWARI | DAYASAGAR NATH TIWARI | 35 | Not Found |
| 15 | DHEERAJ KUMAR SAXENA | MADAN MURARI SAXENA | 41 | Not Found |
| 16 | SUNIL CHANDRA TRIPATHI | R.L.TRIPATHI | 49 | Not Found |


Dr. M. K. Gupta

Reg. No.-H23293
Gobind Sugar Mills Ltd.
Aira Estate, Lakhimpur

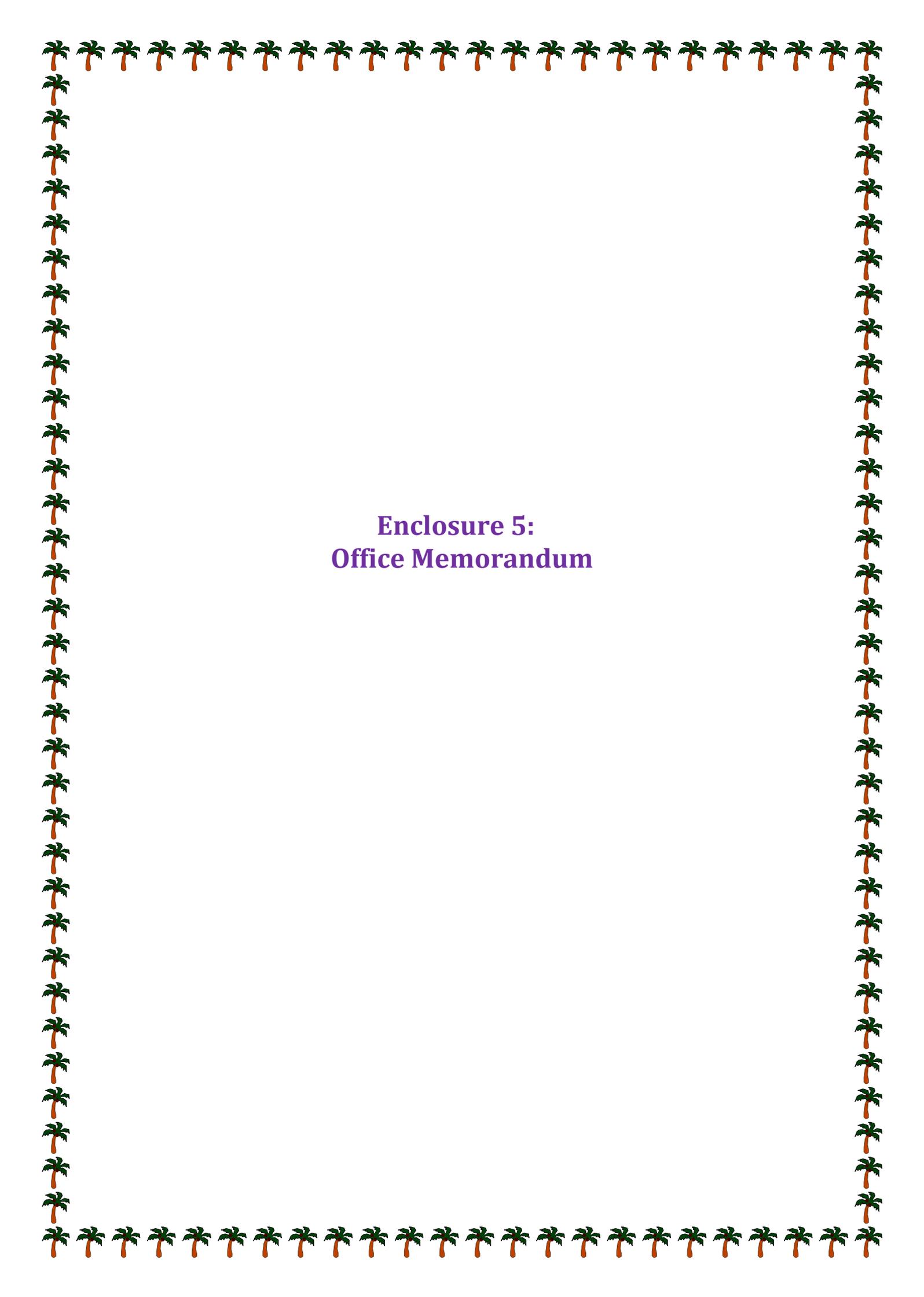
| S.N. | Name Shri | Father Name | Age (in Yrs.) | (contiguous/infectious/communicable) Diseases Examined |
|------|--------------------------|-------------------------------|---------------|--|
| 17 | JAGDISH KUMAR PANDEY | RAJ KISHOR PANDEY | 43 | Not Found |
| 18 | VIJAY KUMAR | RAM GOPAL | 41 | Not Found |
| 19 | KAUSHAL KISHOR SINGH | PAHALWAN SINGH | 45 | Not Found |
| 20 | RAKESH SINGH | LATE SHITALA SINGH | 48 | Not Found |
| 21 | DEEPAK KUMAR | SANTRAM | 37 | Not Found |
| 22 | BRIJMOHAN SHUKLA | SANTOSH KUMAR | 27 | Not Found |
| 23 | ASHWANI KUMAR | VIJAY BAHADUR | 49 | Not Found |
| 24 | AMARDEEP VERMA | RAMKAMAL VERMA | 44 | Not Found |
| 25 | CHANDRA SHEKHAR VERMA | B.N.VERMA | 61 | Not Found |
| 26 | RAJIV PRAKASH SAXENA | LATE BISESHWAR DAYAL SAXENA | 58 | Not Found |
| 27 | SANJAY SINGH | RAGHAV SINGH | 51 | Not Found |
| 28 | SHIVRAMESH SINGH | RAMCHANDRA SINGH | 27 | Not Found |
| 29 | ARVIND KUMAR VERMA | RAM SINGH VERMA | 39 | Not Found |
| 30 | KASTOOR SINGH RAI | GORELAL RAI | 55 | Not Found |
| 31 | KALLU SAVITA | MOTILAL | 30 | Not Found |
| 32 | RAM PRAVESH KUSHWAHA | RAMAYAN | 47 | Not Found |
| 33 | ARVIND KUMAR | SANTOSH TRIPATHI | 37 | Not Found |
| 34 | ITENDRA KUMAR SRIVASTAVA | LATE JYOTI PRAKASH SRIVASTAVA | 48 | Not Found |
| 35 | RAGHVENDAR PRATAP SINGH | TULARAM SINGH | 31 | Not Found |


 Dr. M. K. Gupta
 Reg. No.-H23293
 Gobind Sugar Mills Ltd.
 Aira Estate, Lakhimpur

| S.N. | Name Shri | Father Name | Age (in Yrs.) | (contiguous/infectious/communicable) Diseases Examined |
|------|--------------------------|-----------------------|---------------|--|
| 36 | ADITYA MISHRA | DINESH MISHRA | 25 | Not Found |
| 37 | ANURAG KUSHWAHA | ARUN KUMAR KUSHWAHA | 30 | Not Found |
| 38 | SAURABH KUMAR SHARMA | ANAND KUMAR SHARMA | 32 | Not Found |
| 39 | VIVEK AGNIHOTRI | D.S. AGNIHOTRI | 33 | Not Found |
| 40 | SHASHI BHUSAN UPADHYAY | RAMANUJ UPADHYAY | 55 | Not Found |
| 41 | SUNIL KUMAR SHARMA | LATE S. B. SHARMA | 39 | Not Found |
| 42 | SHUBHAM YADAV | RAM KUMAR YADAV | 25 | Not Found |
| 43 | PREM PRAKASH PANDEY | LATE BATUKDEV PANDEY | 50 | Not Found |
| 44 | SHAILESH KUMAR MISHRA | SHRAWAN KUMAR | 24 | Not Found |
| 45 | AKHILESH KUMAR GOND | INDRA DEO | 31 | Not Found |
| 46 | PRAMOD KUMAR | MADAI LAL | 24 | Not Found |
| 47 | SANJEEV KUMAR RAI | VIDHAN CHANDRA RAI | 27 | Not Found |
| 48 | AWADHESH KUMAR SINGH | GAYA PRASAD SINGH | 37 | Not Found |
| 49 | ALOK KUMAR SHARMA | RAMESH CHANDRA SHARMA | 27 | Not Found |
| 50 | SHIVAM YADAV | RAJESH KUMAR YADAV | 21 | Not Found |
| 51 | ANJANI KUMAR MISHRA | GANPAT PRASAD MISHRA | 29 | Not Found |
| 52 | BRIJESH KUMAR SRIVASTAVA | JAG PRASAD SRIVASTAVA | 40 | Not Found |


Dr. M. K. Gupta

Reg. No.-H23293
Gobind Sugar Mills Ltd.
Aira Estate, Lakhimpur

A decorative border consisting of a repeating pattern of palm trees with green fronds and brown trunks, arranged in a rectangular frame around the page.

**Enclosure 5:
Office Memorandum**

F.No.22-65/2017-IA.III
Government of India
Ministry of Environment, Forest and Climate Change
Impact Assessment Division

Indira Paryavaran Bhawan
Jor Bagh Road, Aliganj
New Delhi – 110003
e-mail: sharath.kr@gov.in

Dated: 30th September, 2020

Office Memorandum

Sub: Deliberation on the commitments made by project proponent and requirements to address the concerned raised during the public consultation and prescribe as specific condition(s) while recommending the proposal, for prior environment clearance, in physical terms in lieu of Corporate Environment Responsibility (CER) – regarding.

This is in supersession of the OM of even number dated 1st May, 2018, regarding guidelines in respect of Corporate Environment Responsibility. Ministry is in receipt of several representations regarding imposition of certain percentage of project cost or expansion cost as Corporate Environment Responsibility. Further, the said OM was also challenged before the Hon'ble High Court of Delhi in WP(C) No. 13252/2019 in the matter of CREDAI, NCR *Versus* Union of India and Ors.

The matter has since been examined in the Ministry and it is hereby decided that henceforth the Expert Appraisal Committee or State Level Expert Appraisal Committee shall deliberate on the commitments made by the project proponent to address the concerns raised during the public consultation and prescribe specific condition(s) in physical terms while recommending the proposal, for grant of prior environment clearance instead of allocation of funds under Corporate Environment Responsibility

Further, it is directed that all the activities proposed by the project proponent or prescribed by the Expert Appraisal Committee or State Level Expert Appraisal Committee, as the case may be, shall be part of the Environment Management Plan.

This issues with the approval of competent authority.


(Sharath Kumar Pallerla)
Scientist 'F'/Director (IA-Policy)

To,

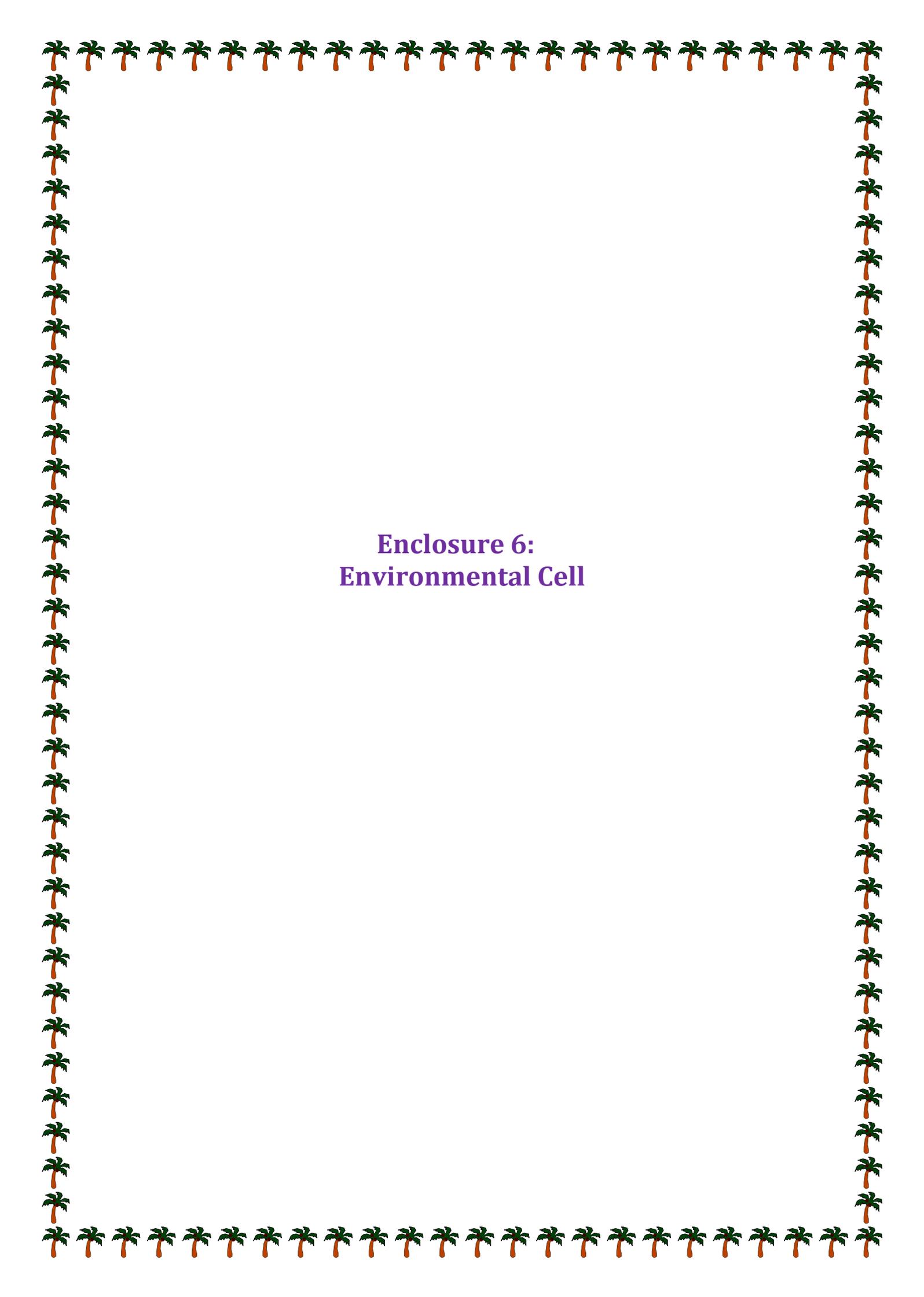
1. Chairman and Member Secretary of Central Pollution Control Board

2. Chairpersons and Members of all the Expert Appraisal Committees
3. Chairpersons and Member Secretaries of all the SEIAA/SEACs
4. Chairpersons and Member Secretaries of all SPCBs/UTPCCs
5. Member Secretaries of all the Expert Appraisal Committees
6. All the officers of IA Division

Copy for information to:

1. PS to Minister for Environment, Forest and Climate Change
2. PS to MoS for Environment, Forest and Climate Change
3. PPS to Secretary (EF&CC)
4. PPS to AS(RA) / AS(RSP)
5. PPS to JS(GM) / JS(AKN)/JS(SKB)
6. Website, MoEF&CC
7. Guard File.

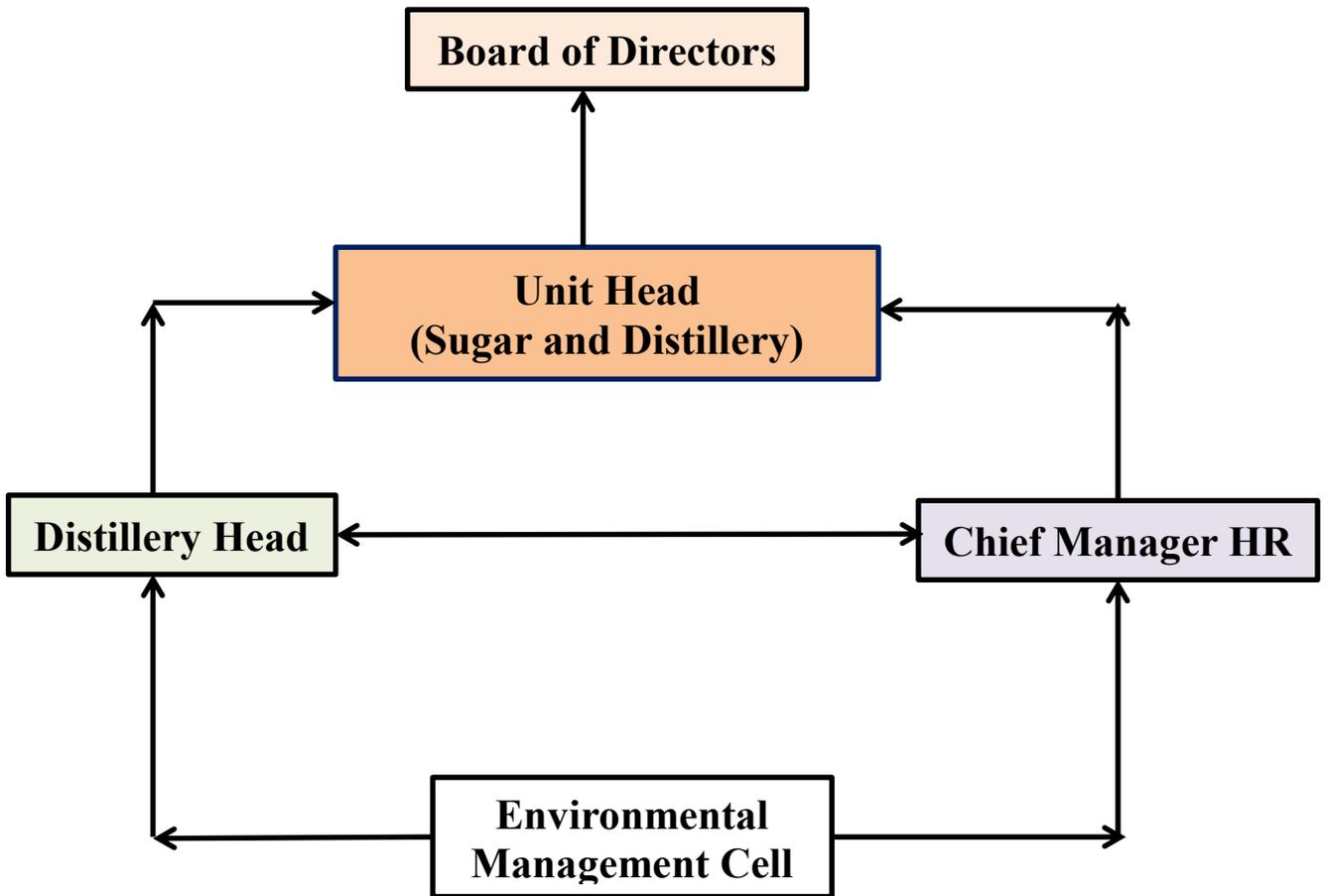

(Sharath Kumar Pallerla)
Scientist 'F'/Director (IA-Policy)

A decorative border of palm trees surrounds the page. The border consists of a top row of 20 palm trees, a bottom row of 20 palm trees, and two vertical columns of 20 palm trees each on the left and right sides, forming a rectangular frame.

**Enclosure 6:
Environmental Cell**



Environmental Management Cell



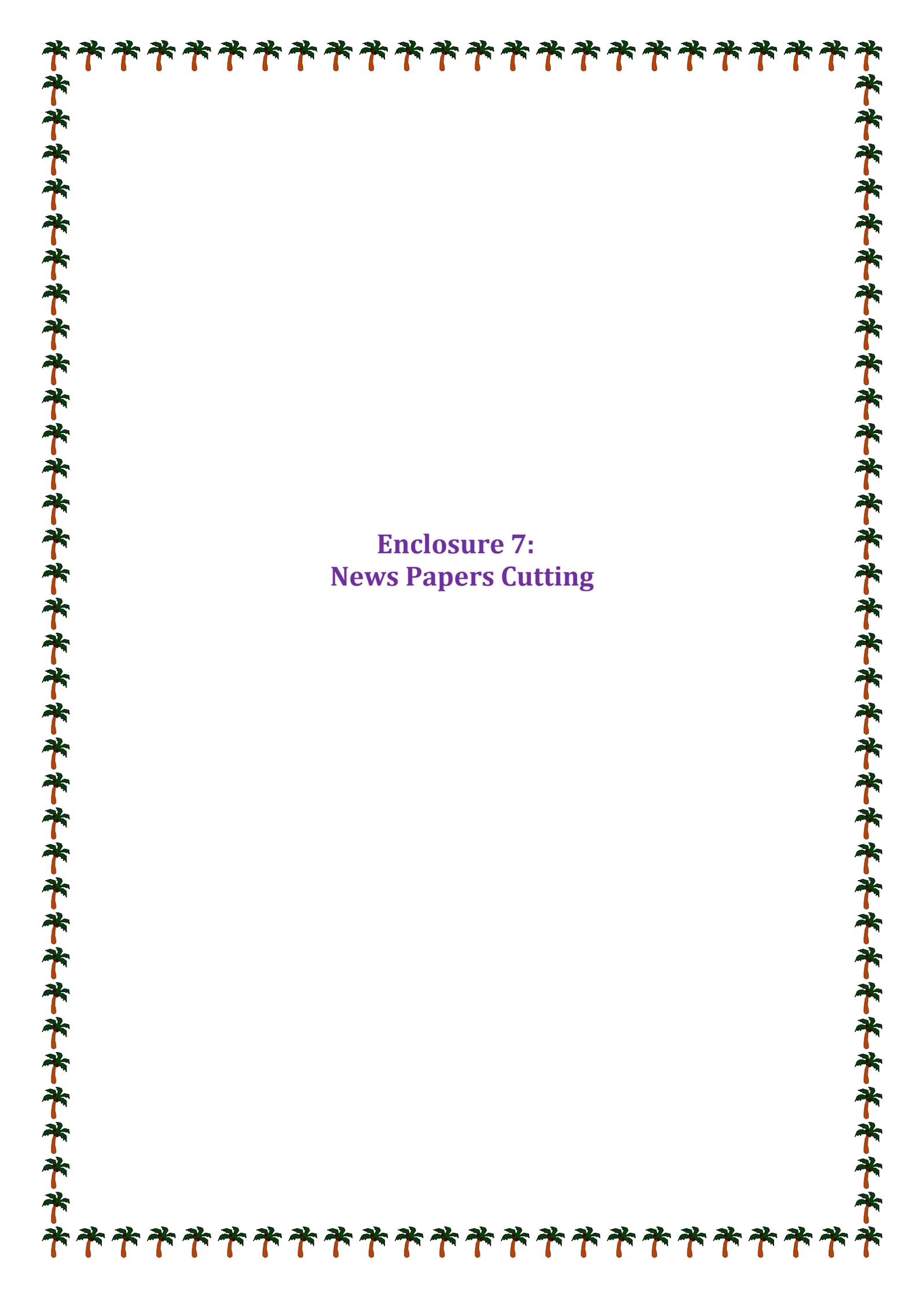
Authorized Signatory

M/s Gobind Sugar Mills Limited (Distillery Unit)

Village-Khamaria Pandit, Aira, Estate District- Lakhimpur Kheri.

GOBIND SUGAR MILLS LIMITED

Regd. Off: Birla Building, 5th Floor, 9/1, R.N. Mukherjee Road, Kolkata -700 001
Corp Off: 5th Floor, Tower A, Global Business Park, Sec – 26, MG Road, Gurgaon -122002
Phone: 0124 - 482 7800, Fax: 0124 421 2046, Email: gsml.aira@adventz.com
CIN No: L15421WB1952PLC020577, www.gobindsugar.com

A decorative border of palm trees surrounds the page. The border consists of a top row of 20 palm trees, a bottom row of 20 palm trees, and two vertical columns of 20 palm trees each on the left and right sides, forming a rectangular frame.

**Enclosure 7:
News Papers Cutting**

सूचना

सर्वसाधारण को सूचित किया जाता है कि मेसर्स गोविन्द शुगर मिल्स लि., खमरिया पंडित, ऐरा स्टेट जनपद- लखीमपुर खीरी द्वारा स्थापित 60 किली./दिन क्षमता की आसवनी इकाई एवं 2.2 मेगावाट क्षमता का सह विद्युत उत्पादन संयंत्र के प्रस्तावित विस्तारण 60 से 100 किली./ दिन क्षमता की आसवनी इकाई एवं 2.2 से 4.0 मेगावाट क्षमता का सह विद्युत उत्पादन संयंत्र स्थापना परियोजना को पर्यावरण निदेशालय लखनऊ उ.प्र. द्वारा दिनांक 16.07.2020 को पर्यावरणीय स्वीकृति प्रदान की गयी है। जिसकी प्रति उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड टी.सी. 12 विभूति खण्ड, गोमती नगर लखनऊ एवं पर्यावरण निदेशालय की वेबसाइट www.seiaaup.com पर भी देखी जा सकती है।

गोविन्द शुगर मिल्स लि.
ऐरा स्टेट खमरिया पंडित लखीमपुर खीरी

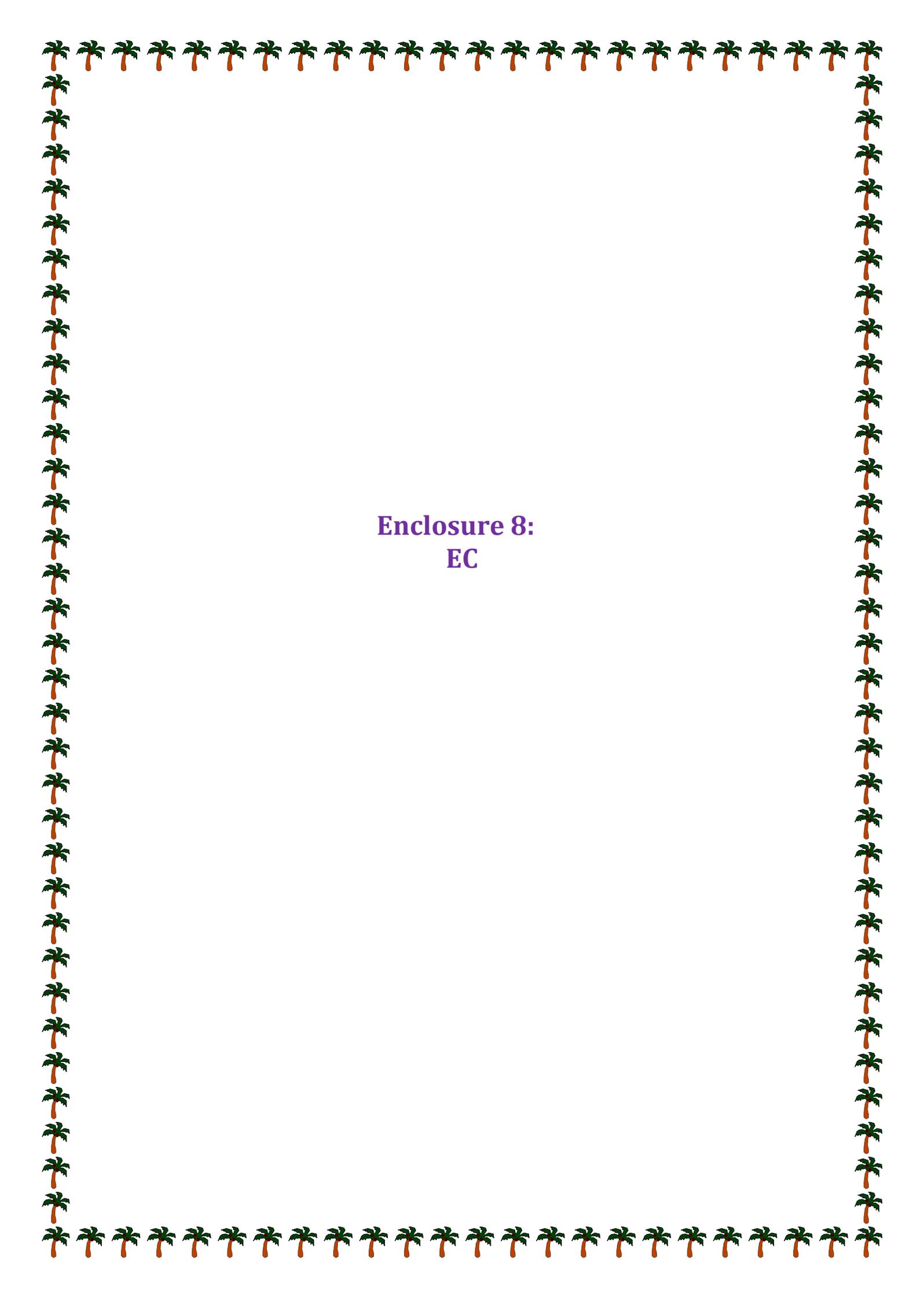
Image: 1.1: Newspaper Advertisement (Amarujala 18 July 2020)

सूचना

सर्व साधारण को सूचित किया जाता है कि मैसर्स गोविन्द शुगर मिल्स लि० खुमरिया पंडित, ऐरा स्टेट जनपद-लखीमपुर खीरी द्वारा स्थापित 60 किली०/दिन क्षमता की आसवनी इकाई एवं 2.2 मेगावाट क्षमता का सह विद्युत उत्पादन संयंत्र के प्रस्तावित विस्तारण 60 से 100 किली०/दिन क्षमता की आसवनी इकाई एवं 2.2 से 4.0 मेगावाट क्षमता का सह विद्युत उत्पादन संयंत्र स्थापना परियोजना को पर्यावरण निदेशालय लखनऊ उ०प्र० द्वारा दिनांक - 16.07.2020 को पर्यावरणीय स्वीकृति प्रदान की गयी है। जिसकी प्रति उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड टी०सी० 12 विभूति खण्ड, गोमती नगर, लखनऊ एवं पर्यावरण निदेशालय की वेबसाइट www.seiaaup.com पर भी देखी जा सकती है।

गोविन्द शुगर मिल्स लि०
ऐरा स्टेट खुमरिया पंडित लखीमपुर खीरी।

Image: 1.1: Newspaper Advertisement (Hindustan 19 July 2020)

A decorative border of palm trees surrounds the page. The border consists of a top row of 20 palm trees, a bottom row of 20 palm trees, and two vertical columns of 20 palm trees each on the left and right sides, forming a rectangular frame.

Enclosure 8:
EC

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,

Unit Head,
M/s Govind Sugar Mills Ltd, (Distillery Unit),
Village- Khamaria Pandit, Aira Estate,
Tehsil- Dhaurahara, District- Kheri, U.P.

Ref. No.....206...../Parya/SEIAA/4955-5369/2019

Date: 16 July, 2020

Sub: Environmental Clearance for Proposed Expansion of Existing Molasses Based Distillery unit from 60 KLD to 100 KLD & co-generation of power from 2.2 MW TO 4 MW by at VillageKhamariaPandit, Air Estate, District- LakhimpurKheri, U.P., M/s Gobind Sugar Mills (GSML)Distillery Unit.

Dear Sir,

Please refer to your application/letters 25-07-2019, 19-07-2019, 09-01-2020, 22-01-2020, 06-02-2020 & 29-05-2020 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 10-06-2020 and SEIAA in its meeting dated 24-06-2020.

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 unit from 60 KLD to 100 KLD & co-generation of power from 2.2 MW TO 4 MW by at VillageKhamariaPandit, Air Estate, District- LakhimpurKheri, U.P., M/s Gobind Sugar Mills (GSML)Distillery Unit.
2. Terms of reference in the matter were issued by MoEF&CC, Govt. of India vide letter no. 321/Parya/SEAC/4955/2018, dated 02.11.2019
3. Final EIA report submitted by the project proponent on 09.01.2020.
4. Salient features of the project:

| Sr No. | Item | Details |
|--------|------------------------|---|
| 1 | Name of the Project | GOBIND SUGAR MILLS LIMITED (GSML)(Distillery Unit) Village-KhamariaPandit, Aira, Estate District- LakhimpurKheri, U.P. |
| 2 | Capacity of Distillery | Expansion from 60 KLPD to 100 KLPD (Rectified Spirit/Extra Neutral Alcohol/Ethanol) |
| 3 | Power Generation | Expansion from 2.2 to 4.0 MW Co- Generation of Power. |
| 4 | Category | Category "B" and Schedule - 5 (g) |

5. Project Summary:

| Sr No. | Attributes | Existing 60 KLD capacity | Proposed 100 KLD (60 KLD+40 KLD new) capacity |
|--------|--------------------|--------------------------|--|
| 5 | Total Project Area | 3.165 Hectare | 3.165 Hectare (No additional land required) |



E.C. for Expansion of Existing Molasses Based Distillery unit from 60 KLD to 100 KLD & co-generation of power from 2.2 MW TO 4 MW by at VillageKhamariaPandit, Air Estate, District- LakhimpurKheri, U.P., M/s Gobind Sugar Mills (GSML)Distillery Unit.

| | | | |
|---|----------------------|---|--|
| 6 | Green belt area | 33% of total land area | Unit will now develop 35% of total area as green belt (1.1 Hectare) |
| 7 | No. of working days | 310 days per annum (as per existing EC) | 360 days per annum |
| 8 | Total Project Cost | 10738.11 Lakhs | 16,571.00 Lakhs |
| 9 | Quantity of Molasses | 270 T/DAY | 450 T/DAY (@4.5 T/ KL of Product) (316 KLD)Adjacent sugar mills/ By road |

| Sl no. | Attributes | For Existing 60 KLD capacity | For Proposed 100 KLD (60 KLD+40 KLD new) capacity |
|--------|---|--|---|
| 10 | Steam Requirement | 19.0 TPH | 28.0 TPH |
| 11 | Slop fired boiler | 01 No Slop fired Boiler Capacity 20 TPH. | Only new 01 no. of Slop fired Boiler Capacity 35 TPH shall be installed. |
| 12 | Fuel Quality & Quantity | Bagasse = 100 TPD + Slop = 175 m3/day | Bagasse = 200 TPD + Slop =248 m3/day |
| 13 | Air Pollution Control Device | Bag Filters | Bag Filters |
| 14 | Nos. of Stack | 1 No. of Stack existing of 80.0 Meters Height. | Only 1 No. of stack of 80.0 Meters Height. |
| 15 | Water Requirement | 560 KLD is fresh water requirement for 60 KLD distillery. | 600 KLD@6.0 KL/KL of Alcohol for industrial use, and 20 KLD for domestic purposes. Total water requirement: 620 KLD. |
| 16 | Spent wash generation | 460 KLD @ 7.6 KL/KL of product | 600 KLD@6.0 KL/KL of product |
| 17 | Waste Water Treatment | For Spent Wash Treatment, MEE + Incineration (Slop fired Boiler) For Other Effluent (Condensate, Leese , Floor washing , Blow downs) Secondary Treatment Plant is installed to achieve the ZERO DISCHARGE. | For Spent Wash Treatment: MEE + Incineration (Slop fired Boiler) For Other Effluent (Condensate, Leese , Floor washing , Blow downs) Secondary Treatment Plant shall be installed upto tertiary level to achieve the ZERO DISCHARGE. |
| 18 | Solid Waste Generation Ash from Boiler Use: | Total Ash Generated : 37 TPD Fermenter sludge: 50 TPD Use: Total Ash & sludge is being used as manure. | Total Ash Generated : 42.6 TPD Fermenter sludge: 58 TPD Use: Total Ash & sludge shall be used as manure. |
| 19 | Cost towards Environmental protection measures (Capital cost) | Rs. 815 lakhs | Rs. 400 lakhs Total: 1215 Lakhs |
| 20 | Recurring cost towards | Rs. 73 Lakhs /Annum | Rs. 50 Lakhs/Annum Total: 125 |



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| | Environmental control measures. | | Lakhs/Annum |
|----|---------------------------------|---|-------------|
| 21 | Corporate Social Responsibility | 2% of total annual Profit as per the CSR Act (By Ministry of corporate affairs) Notification GSR 129 (E). | |

6. Land use details:

| SL NO | Land use | Area (sqm) | Area in % |
|-------|--------------------------------|------------|-----------|
| 1 | Green Belt Area | 11000 | 35 |
| 2 | Open Land | 5624 | 17 |
| 3 | Road/ Paved Area | 1980 | 6 |
| 4 | Rooftop area of building/sheds | 13046 | 42 |
| 5 | GRAND TOTAL | 31650 | 100 |

7. Raw material required with daily consumption and transport:

| SL NO | Particular | Daily Requirements For 100 KL/Day plant | Source of raw material & Mode of Transportation |
|----------------------------------|--------------------------------------|---|--|
| 1 | Molasses | 450 T/DAY | Adjacent sugar mills/ By road |
| Others Chemicals Required | | | |
| 2 | Sodium hydroxide (caustic) (kg/day) | 250 | 30.0 days storage will be provided and raw material will be transported through Tankers. . |
| 3 | Nutrients (DAP/Fertilizers) (kg/day) | 280 | |
| 4 | Antifoam Agent(kg/day) | 20 | |

8. Plant and machinery:

- 1) 100 KLPD Ethanol plant with integrated evaporator and alcohol storage system, MEE
- 2) 35 TPH concentrated spent wash (slop) fired incineration boiler including air pollution control system (Bag Filter)
- 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) ETP /Condensate treatment system
- 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:

| Water Requirement | | |
|--|-------------------------|--------------------------------|
| 1 | Industry Use | 600 KLD(@ 6 KL/ KL of product) |
| 2 | Domestic Use | 20 KLD |
| 3 | Total Water Requirement | 620 KLD |
| Source: Ground water (from Tube Domestic well) As per CGWA; area categorization unit falls under safe category for which CGWA NOC Accorded. | | |

10. Waste water generation:



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| | | |
|---|------------------------|---|
| 1 | Waste Water Generation | Spent Wash 600 KLPD @ 6 KL/KL of Product Other Effluents: 628 KLD (Condensates) |
| 2 | Treatment Technology | For Spent wash: MEE followed by Incineration (Slop fired Boiler) and For Other Effluent: Process Condensate Polishing Plant shall be installed for treatment of various other effluents (Condensate, Lees, Floor washing, Blow downs). Domestic effluent shall be disposed in Soak pit and Septic tank. |

11. The project proposal falls under Category "B" and Schedule - 5 (g) of EIA Notification, 2006 (as amended).

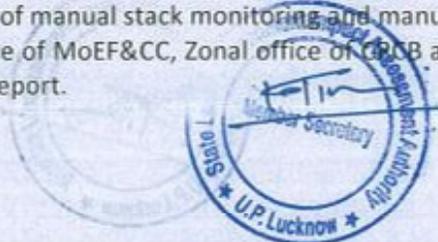
Based on the recommendations of the State Level Expert Appraisal Committee Meeting (SEAC) held on 10-06-2020 the State Level Environment Impact Assessment Authority (SEIAA) in its Meeting held 24-06-2020 in view of EIA Notification, 2006 (as amended) and decided to grant the Environmental Clearance for proposed project along with subject to the effective implementation of the following conditions:-

I. Statutory compliance:

1. Zero liquid discharge (ZLD) technology should be adopted and no effluent will be discharged outside the premises.
2. 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.
3. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
4. 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.



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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
5. Consent under the Air/Water Act, whichever is more stringent.
6. 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.
7. 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.
8. 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:

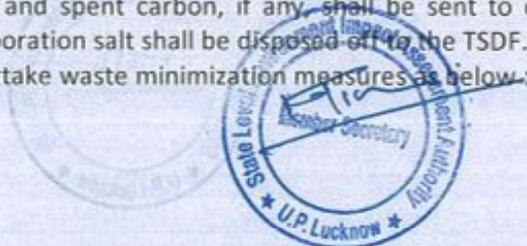
1. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
2. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation.
3. The ambient noise levels should conform to the standards prescribed under E(P)A Rules,
4. 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 :-



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- 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:

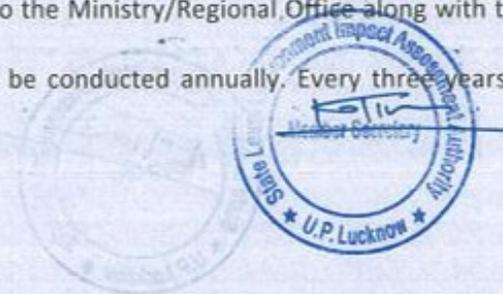
1. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.

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.
4. 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.
5. 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.
6. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
7. 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:

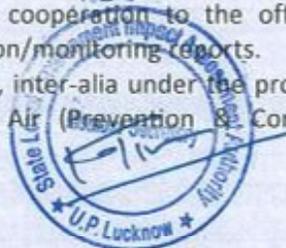
1. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
2. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements /deviation/violation ofthe environmental / forest /wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation/ violation of the environmental/ forest / 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 lev el, with qualified personnel shall be set up under the control of senior Executive , who will directly 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.
5. 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.
6. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.



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X. Miscellaneous:

1. The project proponent shall ensure that waste water is properly treated in ETP and reused. As proposed treated waste water should be completely recycled /reused and ZLD should be achieved. Under no circumstances treated waste water shall be discharged to any drain/sewer line/ inland surface water/Nala etc.
2. -"Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied".
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
11. 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.
12. 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).
13. 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.
14. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
15. The Ministry reserves the right to stipulate additional conditions if found necessary.
16. The Company in a time bound manner shall implement these conditions.
17. 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.
18. 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



E.C. for Expansion of Existing Molasses Based Distillery unit from 60 KLD to 100 KLD & co-generation of power from 2.2 MW TO 4 MW by at VillageKhamariaPandit, Air Estate, District- LakhimpurKheri, U.P., M/s Gobind Sugar Mills (GSML)Distillery Unit.

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.

19. 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 LakhimpurKheri. 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 be deemed to be cancelled. Also, in the event of any dispute on ownership or land use of the proposed site, this Clearance shall automatically be 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.



Member Secretary, SEIAA

No..... /Parya/SEAC/4955-5369/2019

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 LakhimpurKheri.
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

