



Date: 12/07/2023

To,
The Director,
Regional Office Lucknow,
Ministry of Environment, Forest & Climate Change (MoEF&CC),
Kendriya Bhawan, 5th Floor,
Sector-H, Aliganj, Lucknow-226024

Subject: Request for "Certified Compliance Report" of existing Environmental Clearance Molasses based Distillery Unit from 60 KLD to 100 KLD (*Currently unit is operating at 125 KLD capacity*) & co-generation from 2.2 MW to 4.0 MW at village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.), by M/s **Zuari Industries Limited, Distillery Division (Formerly known as Gobind Sugar Mills (GSML))**

Environment Clearance Ref No.- **206/Parya/SEIAA/4955-5369/2019, dated 16th July, 2020**

Dear Sir,

With reference to above subject, we would like to inform you that we have already obtained Environmental Clearance Molasses based Distillery Unit from 60 KLD to 100 KLD (*Currently unit is operating at 125 KLD capacity*) & co-generation from 2.2 MW to 4.0 MW at village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.) by M/s Zuari Industries Limited, Distillery Division (Formerly known as Gobind Sugar Mills (GSML)) via EC No.- 206/Parya/SEIAA/4955-5369/2019, dated 16th July, 2020.

Now company proposed to install Unit-II within existing distillery premises for which certified compliance report is required.

We are submitting the six-monthly compliance of existing Environmental Clearance to the Regional MoEF&CC office, Lucknow. Copy of Environmental Clearance compliance along with all necessary annexure is enclosed with this letter.

Hence, it is requested that kindly considered our EC compliance report and grant us certified compliance report for which we shall be highly obliged.

Thanking You,
Your's Faithfully


Authorized Signatory

GOBIND SUGAR MILL - AIRA

A Division of ZUARI INDUSTRIES LIMITED (FORMERLY ZUARI GLOBAL LIMITED)

CIN No.: L65921GA1967PLC000157

Factory : P.O. Aira Estate, Dist. Lakhimpur Kheri – 262 722, Uttar Pradesh. Tel: +91 58742 82225

Corp. Off : 5th Floor, Tower - A, Global Business Park, M. G. Road, Sector 26, Gurugram -122 002, Haryana India

Tel: +91124 482 7800 Fax: +91124 4212046

Regd. Off : Jal Kisaan Bhawan, Zuarinagar, Goa - 403726

Website: www.adventz.com, www.zuarisugar.com ; e-mail: ig.gsml@adventz.com

Date: 08.07.2023

To,

**The Director
Ministry of Environment, Forest & Climate Change
Kendriya Bhawan, 5th Floor, Sector "H" Aliganj
Lucknow (Uttar Pradesh)**

Subject: Six Monthly Compliance Report of Environmental Clearance for Expansion of Existing Distillery Unit from 60 KLD to 100 KLD by M/s Zuari Industries Limited, Distillery Division (Formerly known as Gobind Sugar Mills (GSML)), at Village Khamaria Pandit, Aira Estate, District: Lakhimpur Kheri (U.P.) for the period of October, 2022 to March, 2023. *Currently unit is operating at 125 KLD capacity with No Increase in Pollution Load Certificate.*

EC Ref. No: 206/Parya/SEIAA/4955-5369/2019 Dated: 16th July, 2020

Reg: Submission of Six-Monthly Compliance Report for Period of October, 2022 to March, 2023.

Dear Sir,

This is in connection to above mentioned subject we are hereby submitting the six-monthly compliance report of the conditions of Environmental Clearance for Molasses based Distillery for Expansion of Existing Distillery Unit from 60 KLD to 100 KLD (Currently running at 125 KLD) by M/s Zuari Industries Limited, Distillery Division (Formerly known as Gobind Sugar Mills (GSML)), at Village Khamaria Pandit, Aira Estate, District: Lakhimpur Kheri (U.P.) for the period of October, 2022 to March, 2023 along with annexures as follows:

1. Annexure-01 (A): Copy of CTO (Air and Water),
2. Annexure-01 (B): Copy of No increase in Pollution load certificate
3. Annexure-02: Copy of Environmental Clearance
4. Annexure-03: HWM Certificate
5. Annexure-04: Test Reports
6. Annexure-05: UPGWD NOC
7. Annexure-06: Adopted Pond photographs
8. Annexure-07: Photographs of Green Belt
9. Annexure-08: Employee health status report
10. Annexure-09: Copy of the Office Memorandum
11. Annexure-10: Environmental Cell
12. Annexure-11: Year wise Environmental Protection measures implementation
13. Annexure-12: Published information (in 2 newspapers)

Requesting you to accept soft copy reports submitted for information please.

Thanking you,
Yours sincerely,



Authorized Signatory

GOBIND SUGAR MILL - AIRA

A Division of ZUARI INDUSTRIES LIMITED (FORMERLY ZUARI GLOBAL LIMITED)

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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 M/s Zuari Industries Limited, Distillery Division (Formerly known as Gobind Sugar Mills (GSML)) at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)

EC Compliance
October, 2022 to
March, 2023

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

(October, 2022 to March, 2023)

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 Zuari Industries Limited, Distillery Division
(Formerly known as Gobind Sugar Mills (GSML))**

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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 October, 2022 to March, 2023. 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 Air & Water has already been obtained for the project Vide Ref No. - **164011/UPPCB/Lucknow(UPPCBRO)/CTO/both/Lakhimpurkheri/2022, dated 19/09/2022** for validity upto 31/12/2023 attached here as **Annexure-1 (A)**.

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 (B)**.

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 Zuari Industries Limited, Distilery Division (Formerly known as Gobind Sugar Mills (GSML))** management team is fully conscious about Environmental Management and enhancing green belt development in project surrounding area.

Six monthly compliance/status reports for October, 2022 to March, 2023 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.

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 M/s Zuari Industries Limited, Distillery Division (Formerly known as Gobind Sugar Mills (GSML)) at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)	EC Compliance October, 2022 to March, 2023
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**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: Lakhimpur Kheri (UP).

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

Period of Compliance Report: (October, 2022 to March, 2023).

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)

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 M/s Zuari Industries Limited, Distillery Division (Formerly known as Gobind Sugar Mills (GSML)) at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)

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			(316 KLD)	
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	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 M/s Zuari Industries Limited, Distillery Division (Formerly known as Gobind Sugar Mills (GSML)) at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)

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March, 2023**

		measures (Capital cost)			
	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		

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 M/s Zuari Industries Limited, Distillery Division (Formerly known as Gobind Sugar Mills (GSML)) at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)

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March, 2023**

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="320 1149 1396 1328"> <tr> <td data-bbox="320 1149 395 1193">1</td> <td data-bbox="395 1149 667 1193">Industry Use</td> <td data-bbox="667 1149 1396 1193">600 KLD (@6.0 KL/KL of product)</td> </tr> <tr> <td data-bbox="320 1193 395 1238">2</td> <td data-bbox="395 1193 667 1238">Domestic Use</td> <td data-bbox="667 1193 1396 1238">20 KLD</td> </tr> <tr> <td data-bbox="320 1238 395 1328">3</td> <td data-bbox="395 1238 667 1328">Total Water Requirement</td> <td data-bbox="667 1238 1396 1328">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)									
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10.	<p>Waste water generation:</p> <table border="1" data-bbox="320 1496 1396 1821"> <tr> <td data-bbox="320 1496 395 1574">1</td> <td data-bbox="395 1496 667 1574">Waste water generation</td> <td data-bbox="667 1496 1396 1574">Spent wash 600 KLD @ 6.0 KL/KL of product other effluents: 628 KLD (Condensates)</td> </tr> <tr> <td data-bbox="320 1574 395 1821">2</td> <td data-bbox="395 1574 667 1821">Treatment Technology</td> <td data-bbox="667 1574 1396 1821">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>										

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 M/s Zuari Industries Limited, Distillery Division (Formerly known as Gobind Sugar Mills (GSML)) at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)	EC Compliance October, 2022 to March, 2023
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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.
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 Annexure-3 .

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 M/s Zuari Industries Limited, Distillery Division (Formerly known as Gobind Sugar Mills (GSML)) at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)	EC Compliance October, 2022 to March, 2023
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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.
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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 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.
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 direct ions. (Case to case basis small plants: Manual; Large plants: Continuous).	As per the direction, unit has made arrangement for ambient air quality monitoring. Test reports of Ambient air quality are enclosed here with as Annexure-4 .
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.	Test reports of stack, air quality is enclosed here with as Annexure-4 .
4.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack	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

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 M/s Zuari Industries Limited, Distillery Division (Formerly known as Gobind Sugar Mills (GSML)) at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)	EC Compliance October, 2022 to March, 2023
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	emission and fugitive emission standards.	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.
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.	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 allowed to mix with strom water. The strom water from the premises shall be collected and discharged through a separate conveyance system.	Process effluent/any wastewater do not mix with storm water. The storm water from the premises is collected and used with in 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	

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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.	Unit has obtained necessary permission from UPGWD as per U.P. Ground Water (Management and Regulation) Act 2019 Copy of UPGWD NOC is Enclosed as Annexure-5.
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 UPGWA Guidelines for Rain water harvesting, as per direction unit has adopted ponds for rain water harvesting purpose. Adopted Pond photographs Enclosed as Annexure-6
IV. Noise monitoring and prevention:		
1.	Acoustic enclosure shall be provided to DG set for controlling the noise pollution.	Acoustic enclosure is provided with DG set for controlling the noise pollution.
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.
4.	1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.	Test report enclosed as Annexure-4.
V. Energy Conservation measure:		
1.	The Energy sources for lighting purposes shall preferably be LED based.	The unit has preferred LED Lighting in the campus.

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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.	Unit is following the conditions of 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.
VII. Green Belt:		
1.	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.	33% green belt developed within the plant premises as per the guidelines. Photographs of green belt are enclosed as Annexure-7.
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.	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.

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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-8 .
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-8 .
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.	Unit has earmarked adequate space for parking of vehicles. Copy of the final layout depicting parking area is already submitted.
IX. 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

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		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- 9 .
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-10 .
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.	Point is noted and complied.
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.	The year wise funds earmarked for environmental protection measures implementation of action plan.
6.	Self-environmental audit shall be conduct annually. Every three years third party environmental audit shall be carried out.	Condition noted for compliance.
X. Miscellaneous:		

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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 enclosed as Annexure-11 .
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-12 .
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 of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same on half-yearly basis.	Condition noted for compliance.
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 discloser 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-4 .
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	As per the direction unit is regularly submitting the six-monthly compliance reports within stipulated time frame.

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	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 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.	Complied.
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, Forest and climate change (MoEF&CC).	Unit will not expand or modify the plant without prior approval from the MoEF as well as UPPCB.
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.	Condition noted.

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	<p>The project authorities should extend full cooperation to the Officer (s) of the Regional Office by furnishing the requisite data/information/monitoring reports.</p>	
<p>18.</p>	<p>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.</p>	<p>Point is noted.</p>
<p>19.</p>	<p>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.</p>	<p>Condition noted.</p>

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
1.	AAQ-1	Near Main Gate (Factory) (Station No: 1)	Industrial
2.	AAQ-2	Village: Khamaria Pandit (Station No: 2)	Residential
3.	AAQ-3	Village: Samalsa (Station No: 3)	Residential
4.	AAQ-4	Village; Samardahari (Station No: 4)	Residential

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.

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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)

Particulars	Particulate matters size less than 10 µm (PM ₁₀)	Particulate matters size less than 2.5 µm (PM _{2.5})	Sulphur Dioxides (SO ₂)	Oxides of Nitrogen (NO _x)
Protocol	IS: 5182 (Part-23): 2006 RA: 2017	IS: 5182 (Part-24): 2019	IS: 5182 (Part-2): 2001 RA: 2017	IS: 5182 (Part-6): 2006 RA: 2017
Unit	µg/m ³	µg/m ³	µg/m ³	µg/m ³
Results (November-2022)	86.5	53.85	14.23	20.84
Results (December-2022)	85.9	53.10	14.95	21.09
Results (January-2023)	85.9	52.61	14.56	21.08
Range of testing /limit of detection	5.0 - 1200	2.0 - 500	5.0 - 1050	6.0 - 750
Standard as per NAAQS; dated 18/11/ 2009	For 24 hour = 100	For 24 hour = 60	For 24 hour = 80	For 24 hour = 80

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

Particulars	Particulate matters size less than 10 µm (PM ₁₀)	Particulate matters size less than 2.5 µm (PM _{2.5})	Sulphur Dioxides (SO ₂)	Oxides of Nitrogen (NO _x)
Protocol	IS: 5182 (Part-23): 2006 RA: 2017	IS: 5182 (Part-24): 2019	IS: 5182 (Part-2): 2001 RA: 2017	IS: 5182 (Part-6): 2006 RA: 2017
Unit	µg/m ³	µg/m ³	µg/m ³	µg/m ³
Results (November-2022)	81.6	49.57	13.08	18.46
Results (December-2022)	83.4	50.87	12.85	18.24
Results (January-2023)	80.5	48.35	13.24	17.59
Range of testing /limit of detection	5.0 - 1200	2.0 - 500	5.0 - 1050	6.0 - 750
Standard as per NAAQS; dated 18/11/ 2009	For 24 hour = 100	For 24 hour = 60	For 24 hour = 80	For 24 hour = 80

3.1.5 Ambient Air Quality Monitoring Results at Village; Samalsa (Station No: 4)

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; Samalsa (Station No: 4)

Particulars	Particulate matters size less than 10 µm (PM ₁₀)	Particulate matters size less than 2.5 µm (PM _{2.5})	Sulphur Dioxides (SO ₂)	Oxides of Nitrogen (NO _x)
Protocol	IS: 5182 (Part-23): 2006 RA: 2017	IS: 5182 (Part-24): 2019	IS: 5182 (Part-2): 2001 RA: 2017	IS: 5182 (Part-6): 2006 RA: 2017
Unit	µg/m ³	µg/m ³	µg/m ³	µg/m ³
Results (November-2022)	75.8	49.26	12.09	17.44
Results (December-2022)	78.2	49.01	12.46	17.08
Results (January-2023)	76.2	49.88	12.65	17.86
Range of testing /limit of detection	5.0 - 1200	2.0 - 500	5.0 - 1050	6.0 - 750
Standard as per NAAQS;	For	For	For	For

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dated 18/11/ 2009	24 hour = 100	24 hour = 60	24 hour = 80	24 hour = 80
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3.1.6 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-3.6.

Table-3.6
Ambient Air Quality Monitoring Results at Village: Samardahari (Station No: 3)

Particulars	Particulate matters size less than 10 µm (PM ₁₀)	Particulate matters size less than 2.5 µm (PM _{2.5})	Sulphur Dioxides (SO ₂)	Oxides of Nitrogen (NO _x)
Protocol	IS: 5182 (Part-23): 2006 RA: 2017	IS: 5182 (Part-24): 2019	IS: 5182 (Part-2): 2001 RA: 2017	IS: 5182 (Part-6): 2006 RA: 2017
Unit	µg/m ³	µg/m ³	µg/m ³	µg/m ³
Results (November-2022)	76.9	46.79	12.59	16.45
Results (December-2022)	77.7	48.24	13.02	17.56
Results (January-2023)	77.3	48.65	13.29	17.08
Range of testing /limit of detection	5.0 - 1200	2.0 - 500	5.0 - 1050	6.0 - 750
Standard as per NAAQS; dated 18/11/ 2009	For 24 hour = 100	For 24 hour = 60	For 24 hour = 80	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 85.9 to 86.5 µg/m³, 80.5 to 83.4 µg/m³, 75.8 to 78.2 µg/m³ & 77.3 to 77.7 µg/m³ respectively which were within permissible limit of 100 µg/m³ and PM_{2.5} levels are 52.61 to 53.85 µg/m³ at Station No: 1, 48.35 to 50.87 µg/m³ at Station No: 2, 49.01 to 49.38 µg/m³ at Station No: 3 and 48.24 to 48.65 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 12.09 µg/m³ to 14.23 µg/m³ and NO_x ranges between 16.45 µg/m³ to 20.84 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.

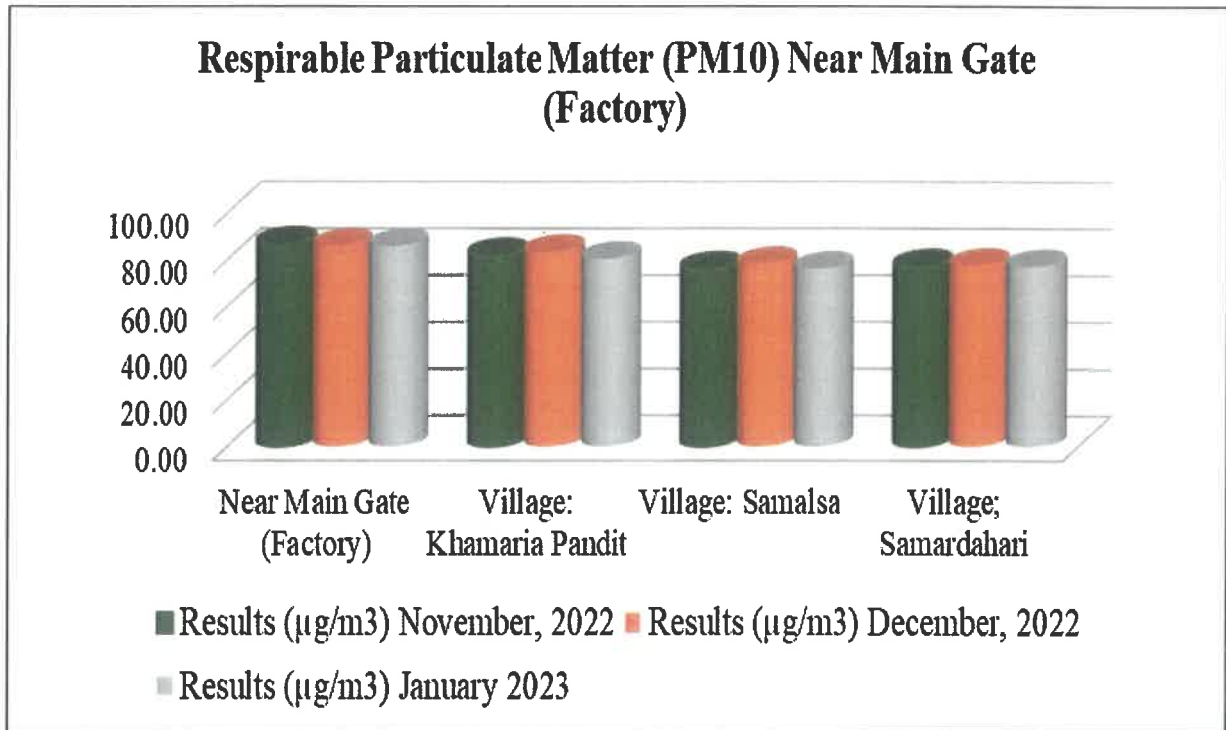


Figure-3.1: Graphs Showing PM₁₀ Concentration at all sites

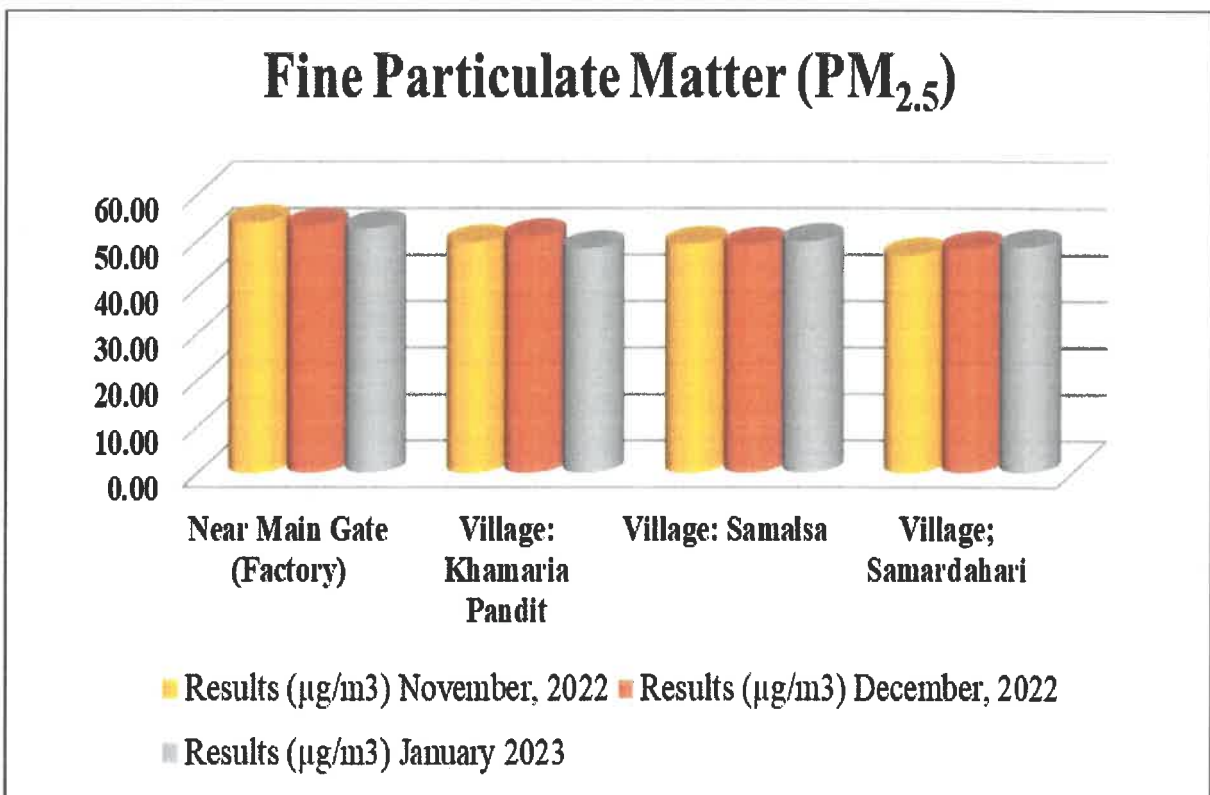


Figure-3.2: Graphs Showing PM_{2.5} Concentration at all sites

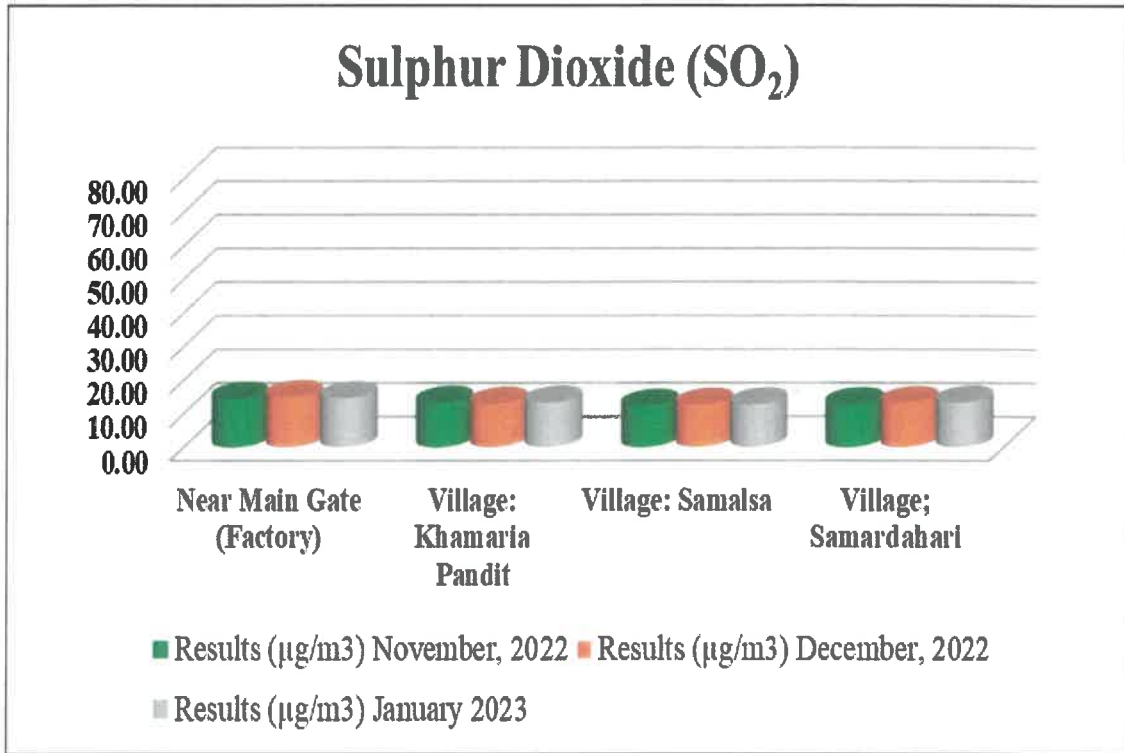


Figure-3.3: Graphs Showing SO₂ Concentration at all sites

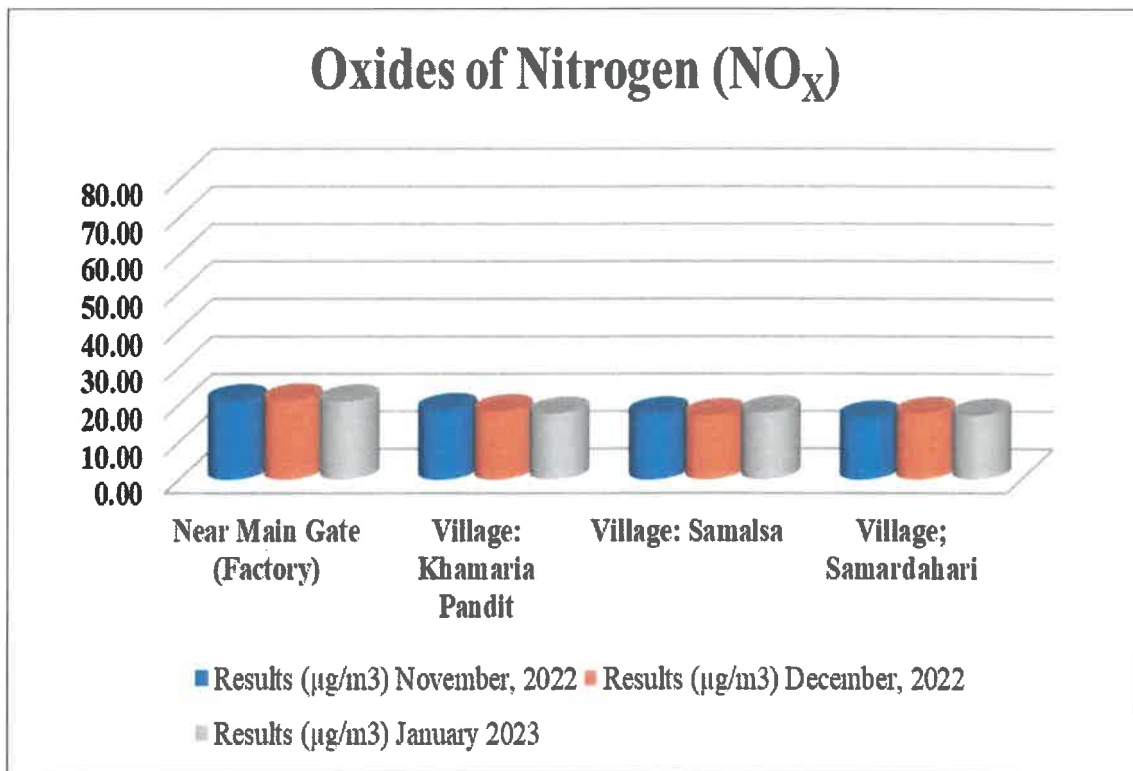


Figure-3.4: Graphs Showing NO_x Concentration at all sites

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 M/s Zuari Industries Limited, Distillery Division (Formerly known as Gobind Sugar Mills (GSML)) at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)	EC Compliance October, 2022 to March, 2023
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3.2 STACK EMISSION MONITORING

Stack Emission monitoring was carried out by EPA approved Laboratory on date 21.11.2022, 21.12.2022 & 02.01.2023 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	46.1	2.0 - 1000	150
2	Particulate Matter	mg/Nm ³	IS: 11255 (Part-1): 1985 Reaffirmed: 2019	45.8	2.0 - 1000	150
3	Particulate Matter	mg/Nm ³	IS: 11255 (Part-1): 1985 Reaffirmed: 2019	47.5	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	21/11/2022, 21/12/2022 & 03/01/2023

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)	62.14	49.38
2	Equivalent sound level	dB(A)	63.18	50.27
3	Equivalent sound level	dB(A)	63.45	50.25

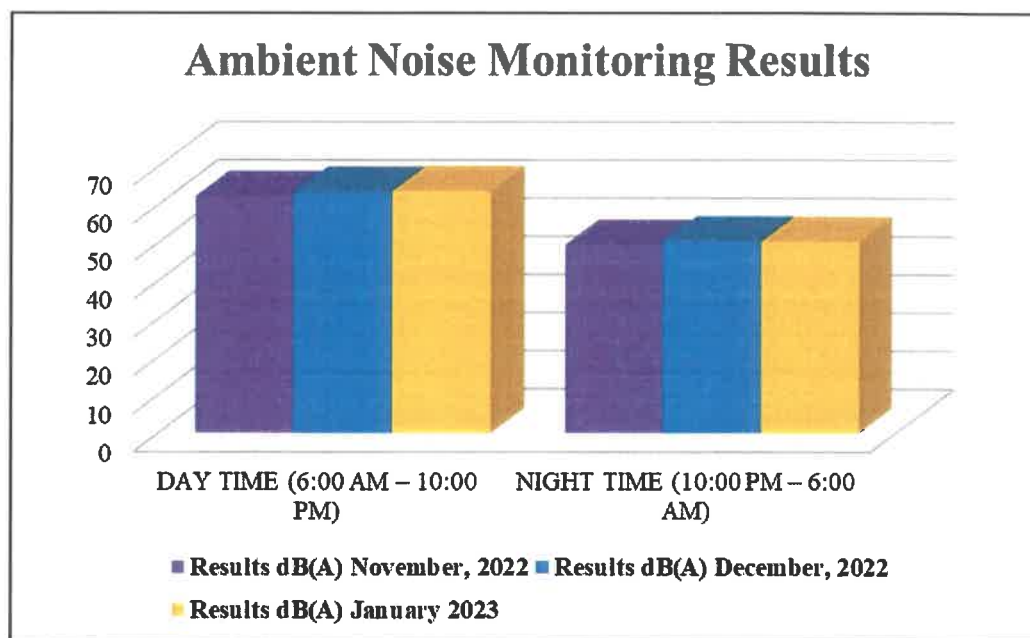


Figure-3.5: Day and Night Time noise Level at Near admin block

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 max. found 63.45 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 max. found 50.27 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)	13 th October, 2022
2.	GW-1	Borewell (within premises)	23 rd November, 2022
3.	GW-1	Borewell (within premises)	23 rd December, 2022
4.	GW-1	Borewell (within premises)	04 th January, 2023
5.	GW-1	Borewell (within premises)	10 th February, 2023
6.	GW-1	Borewell (within premises)	11 th March-2023

3.4.2 Methodology of ground water Quality Monitoring

Sampling of ground water was carried out on 13.10.2022, 23.11.2022, 23.12.2022, 04.01.2023, 10.02.2023 and 11.03.2022. 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**.

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**Table-3.11:
Ground water Quality Results at Borewell within premises (October, 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	396.2	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	61.8	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 23 rd Ed. 2017-3500 Mg, B	30.048	0.1 - 200	30	100
10	Chloride as Cl	mg/l	APHA 23 rd Ed. 2017-4500-Cl ⁻ B	28.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 23 rd Ed. 2017-4500 F ⁻ C	0.33	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	304.0	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)	0.11	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)	0.35	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	

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Table-3.12:

Ground water Quality Results at Borewell within premises (November 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	402.8	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	58.6	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 23 rd Ed. 2017-3500 Mg, B	29.010	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	0.32	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	BDL	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	BDL	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 23 rd Ed. 2017-5530 C	BDL	0.001 - 0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 23 rd Ed. 2017-4500- SO ₄ ²⁻	28.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 23 rd Ed. 2017-2320 B	292.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 23 rd Ed. 2017-2340 C	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)	0.10	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)	0.62	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	

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**Table-3.13:
Ground water Quality Results at Borewell within premises (December, 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	394.0	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	56.2	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 23 rd Ed. 2017-3500 Mg, B	32.076	0.1 - 200	30	100
10	Chloride as Cl	mg/l	APHA 23 rd Ed. 2017-4500-Cl ⁻ B	26.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 23 rd Ed. 2017-4500 F ⁻ C	0.40	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⁻	26.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 23 rd Ed. 2017-2320 B	288.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 23 rd Ed. 2017-2340 C	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)	0.04	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 23 rd Ed. 2017-3120 B (ICP-OES)	0.33	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	

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Table-3.14:

Ground water Quality Results at Borewell within premises (January, 2023)

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-4): 1983 Reaffirmed: 2017	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-5): 1983 Reaffirmed: 2017	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 23 rd Ed. 2017-4500 H ⁺	7.5	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 23 rd Ed. 2017-2130 B	BDL	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 1984 Reaffirmed: 2017	428.5	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	68.8	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 23 rd Ed. 2017-3500 Mg, B	24.30	0.1 - 200	30	100
10	Chloride as Cl	mg/l	APHA 23 rd Ed. 2017-4500-Cl F	30.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 23 rd Ed. 2017-4500 F C	0.35	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	BDL	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	BDL	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 23 rd Ed. 2017-5530 C	BDL	0.001 - 0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 23 rd Ed. 2017-4500- SO ₄ ²⁻	30.0	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)	0.14	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 23 rd Ed. 2017-3120 B (ICP-OES)	0.06	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 23 rd Ed. 2017-3120 B (ICP-OES)	0.24	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 M/s Zuari Industries Limited, Distillery Division (Formerly known as Gobind Sugar Mills (GSML)) at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)	EC Compliance October, 2022 to March, 2023
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Table-3.15:

Ground water Quality Results at Borewell within premises (February, 2023)

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-4): 1983 Reaffirmed: 2017	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-5): 1983 Reaffirmed: 2017	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 23 rd Ed. 2017-4500 H ⁺	7.4	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 23 rd Ed. 2017-2130 B	BDL	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 1984 Reaffirmed: 2017	402.6	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 23 rd Ed. 2017-4500-NH ₃ F	BDL	0.5 - 2.0	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	61.8	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 23 rd Ed. 2017-3500 Mg, B	29.010	0.1 - 200	30	100
10	Chloride as Cl	mg/l	APHA 23 rd Ed. 2017-4500-Cl ⁻ B	28.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 23 rd Ed. 2017-4500 F ⁻ C	0.36	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⁻	30.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 23 rd Ed. 2017-2320 B	308.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 23 rd Ed. 2017-2340 C	284.0	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)	0.05	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 23 rd Ed. 2017-3120 B (ICP-OES)	0.47	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 M/s Zuari Industries Limited, Distillery Division (Formerly known as Gobind Sugar Mills (GSML)) at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)	EC Compliance October, 2022 to March, 2023
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**Table-3.16;
Ground water Quality Results at Borewell within premises (March- 2023)**

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-4): 1983 Reaffirmed: 2017	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-5): 1983 Reaffirmed: 2017	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 23 rd Ed. 2017-4500 H ⁺	7.5	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 23 rd Ed. 2017-2130 B	BDL	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 1984 Reaffirmed: 2017	398.6	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	55.8	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	0.35	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⁻	28.0	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	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)	0.10	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 23 rd Ed. 2017-3120 B (ICP-OES)	0.03	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 23 rd Ed. 2017-3120 B (ICP-OES)	0.76	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/	IS: 1622 - 1981	Absent	≥ 2 MPN Present or Absent per 100 ml	Shall not be detected in any	

	100 ml	Reaffirmed: 2019		100 ml sample
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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 January on 04.01.2023.

The samples have been analyzed as per the established scientific methods for Physico-chemical parameters. The heavy metals have been analyzed by using Atomic Absorption 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	7.3	1 - 14
2	Electrical Conductivity	µmhos/cm	IS: 14767:2000 Reaffirmed:2016	304.0	1.0 - 40000
3	Moisture content	%	IS: 2720 (Part-2): 1973 Reaffirmed: 2015	4.02	1.0 - 50
4	Sulphur	Kg/Hec	IS:14685: 1999 Reaffirmed: 2014	12.60	5.0 - 100
5	Boron	mg/kg	ETRC/ LABSOPS/06	BDL	4.0 - 100

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 M/s Zuari Industries Limited, Distillery Division (Formerly known as Gobind Sugar Mills (GSML)) at Village Khamaria Pandit, Aira Estate, District: LakhimpurKheri (U.P.)	EC Compliance October, 2022 to March, 2023
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6	Copper	mg/kg	ETRC/ LABSOPS/07	0.35	0.3 - 500
7	Zinc	mg/kg	ETRC/ LABSOPS/08	9.36	1.0 - 500
8	Iron	mg/kg	ETRC/ LABSOPS/09	96.4	5.0 - 500
9	Manganese	mg/kg	ETRC/ LABSOPS/10	9.2	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	7.2	1 - 14
2	Electrical Conductivity	µmhos/cm	IS: 14767:2000 Reaffirmed:2016	302.0	1.0 - 40000
3	Moisture content	%	IS: 2720 (Part-2): 1973 Reaffirmed: 2015	3.98	1.0 - 50
4	Sulphur	Kg/Hec	IS:14685: 1999 Reaffirmed: 2014	13.56	5.0 - 100
5	Boron	mg/kg	ETRC/ LABSOPS/06	BDL	4.0 - 100
6	Copper	mg/kg	ETRC/ LABSOPS/07	0.35	0.3 - 500
7	Zinc	mg/kg	ETRC/ LABSOPS/08	8.62	1.0 - 500
8	Iron	mg/kg	ETRC/ LABSOPS/09	95.6	5.0 - 500
9	Manganese	mg/kg	ETRC/ LABSOPS/10	10.5	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

Annexure - I (A)



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
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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 (water) issued earlier vide letter no. 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.

Digitally signed by Dr Ram
Karun
Date: 2022.10.02 19:03:23
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Chief Environmental Officer, Circle-5, UPPCB.

Copy to:

Regional Officer, UPPCB, Lucknow.

Digitally signed by Dr Ram
Karun
Date: 2022.10.02 19:03:43
+05'30'

Chief Environmental Officer, Circle-5, UPPCB.

Annexure - I (B)



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, I

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 166TPD.

(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.

PRADEEP SHARMA Digitally signed by PRADEEP SHARMA
Date: 2022.06.09 15:06:04 +05'30'

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

Copy
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Regional Officer, UPPCB, Lucknow.

PRADEEP SHARMA Digitally signed by PRADEEP SHARMA
Date: 2022.06.09 15:06:28 +05'30'

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



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. - 70/UPHOC5/EIA/LAKHIMPUR KHIRI/2021

Dated:- 08/12/2021

To ,

Shri ALOK SAXENA

M/s GOBIND SUGAR MILLS LIMITED UNIT DISTILLERY

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

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 08/12/2021 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 report regarding 'No Increase in Pollution Load' has been submitted by the Project Proponent prepared by Environmental Auditor M/s Environmental and Technical Research Center, Lucknow empanelled with NABET.

The proposal submitted by Environmental Auditor M/s Environmental and Technical Research Center, Lucknow has been evaluated and concluded that the raw material mix shall be associated with following aspects related to pollution load.

I. The Project under consideration is for use of B heavy Molasses (Mode-2) or Sugar Syrup (Mode-3) as alternative feedstock without change in capacity (100 KLD) by M/s Gobind Sugar Mills Limited Unit: Distillery at Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahara, District: Kheri (U.P.).

II. The raw material consumption will be reduced by 210 KLD during Mode 2 (B heavy Molasses) and reduced by 233 KLD 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 already installed CPU of capacity 1258 cubic meter/day, based on aerobic and anerobic system with Reverse Osmosis System to enable recycling of MEE condensate, boiler blow down etc. in order to fulfill the needs of additional fresh water.

IV. No additional fresh water shall be required. Although fresh water requirement will be reduced from 620 KLD to 580 KLD during B Heavy Molasses based operation and from 620 KLD to 560 KLD during sugar syrup based operation.

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 94,800 kg/day which will be reduced to 72,410 Kg/day during B Heavy Molasses based operation and 48,120 kg/day during Sugar syrup based operation.

VII. Total COD load during C Heavy Molasses based operation is 1,58,250 kg/day which will be reduced to 1,20,750 Kg/day during B Heavy Molasses based operation and 88,550 kg/day during Sugar syrup based operation.

VIII. Total TDS load during C Heavy Molasses based operation is 1,08,200 kg/day which will be reduced to 86,300 Kg/day during B Heavy Molasses based operation and 68,400 kg/day during Sugar syrup based operation.

IX. Total TSS load during C Heavy Molasses based operation is 9,800 kg/day which will be reduced to 7,712 Kg/day during B Heavy Molasses based operation and 5,200 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. -7.6 TPD and 8.6 TPD respectively.

XI. Spent wash generation during operations is 600 KLD which will be reduced to 480 KLD during B Heavy Molasses based operation and 450 KLD during Sugar syrup based operation. Total generation of Spent wash during B heavy Molasses and sugar syrup based operation will be reduced in comparison to C heavy Molasses based operation.

XII. Concentrated spent wash (Slop) generation will be reduced during B - heavy Molasses based operation by 53 TPD and during Sugar Syrup based operation by 68 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 162.8 kg/day which will be reduced to 154.0 Kg/day during B Heavy Molasses based operation and 149.6 kg/day during Sugar syrup based operation.

XVI. Total SO₂ load during C Heavy Molasses based operation is 78.57 kg/day which will be reduced to 59.64 Kg/day during B Heavy Molasses based operation and 54.29 kg/day during Sugar syrup based operation.

XVII. Total NO₂ load during C Heavy Molasses based operation is 170.88 kg/day which will be reduced to 135.0 Kg/day during B Heavy Molasses based operation and 132.2 kg/day during Sugar syrup based operation.

XVIII. Unit already 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 by M/s Gobind Sugar Mills Limited Unit: Distillery at Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahara, District: Kheri (U.P.), due to use of alternative feed stock B-heavy Molasses / Sugar Syrup as raw material 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 project of Ethanol / RS / ENA production capacity for 100 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 100 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 granule generation and Sold
- j) Quantity of Spent lees generation, recycle/reuse and treatment in CPU
- k) Quantity of effluent received into CPU, details of reuse/recycle etc.
- l) Steam generation, fuel consumption

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 100 KLD Ethanol / RS / ENA from UPPCB before starting production of Ethanol/RS ENA based on B-Heavy molasses / Sugar syrup.

Hence, in view of the above facts, the the UPPCB is of the view that the project by M/s Gobind Sugar Mills Limited Unit: Distillery at Village: Khamaria Pandit, Aira Estate, Tehsil: Dhaurahara,

District: Kheri (U.P.), due to use of alternative feed stock B-heavy Molasses / Sugar Syrup as raw material 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 amended 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 as amended for the proposed production of 100 KLD Ethanol / RS / ENA from B-heavy molasses / Sugar Syrup and also to comply with the conditions as above.

The Letter is issued with prior approval of Competent Authority.

Chief Environmental Officer

Pramod Kumar Agrawal Digitally signed by Pramod Kumar Agrawal
Date: 2021.12.10 10:23:48 +05'30'

Chief Environmental Officer, (Circle-5)

Copy

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Regional Officer, UPPCB, Lucknow.

Chief Environmental Officer

Pramod Kumar Agrawal Digitally signed by Pramod Kumar Agrawal
Date: 2021.12.10 10:24:41 +05'30'

Chief Environmental Officer, (Circle-5)

State Level Environment Impact Assessment Authority, Uttar Pradesh

Directorate of Environment, U.P.

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

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

E-mail : docenplko@yahoo.com

Website : www.sciaaup.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 Village Khamaria Pandit, Air Estate, District- Lakhimpur Kheri, 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	50 Lakhs/Annum Total: 125



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.

	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:



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.

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.



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.

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
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.
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.
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.

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

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

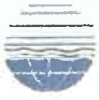
Dated: As above

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

Annexure-3



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)

Pramod Kumar Agarwal Digitally signed by Pramod Kumar Agarwal
Date: 2020.04.08 11:01:36 +05'30'

UTTAR PRADESH POLLUTION CONTROL BOARD

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

Pramod Kumar Agarwal Digitally signed by Pramod Kumar Agarwal
Date: 2020.04.08 11:01:52 +05'30'
CEO/EE, I/C Circle _____

SIX MONTHLY
COMPLIANCE REPORT
(October, 2022 to March, 2023)

Ambient Air	: November, 2022 to January, 2023
Stack Monitoring	: November, 2022 to January, 2023
Ambient Noise Monitoring	: November, 2022 to January, 2023
Ground Water	: October, 2022 to March, 2023
Soil Quality	: January, 2023

of

M/s Zuari Industries Limited
Unit: Distillery
Village: Khamaria Pandit, Aira Estate
Tehsil: Dhaurahra
District: Lakhimpur Kheri
Uttar Pradesh - 262722



ENVIRONMENTAL AND TECHNICAL RESEARCH CENTRE

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

Email : ETRCLTH@YAHOO.IN, Web: www.etrclndia.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/TEST-REP/FT/17

TEST REPORT WATER ANALYSIS

Test Report Ref No. ETRC/1910/11514/2022	Date of Report: 19/10/2022
Name /Address/Type of industry	M/s Zuari Industries 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 Water	6	Sample Collected By	Industry Self
3	Sample received date	13.10.2022	7	Analysis Start Date	13.10.2022
4	Sample Quantity	5.0 liters	8	Analysis End Date	18.10.2022

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	396.2	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	61.8	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 23 rd Ed. 2017-3500 Mg, B	30.048	0.1 - 200	30	100
10	Chloride as Cl	mg/l	APHA 23 rd Ed. 2017-4500-Cl ⁻ B	28.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 23 rd Ed. 2017-4500 F ⁻ C	0.33	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	304.0	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)	0.11	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)	0.35	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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TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No. ETRC/2811/11063/2022		Date of Report: 28.11.2022	
Name /Address/Type of Industry		M/s Zuari Industries 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-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)	19	19
(e)	Time of Sampling Started (Hours)	10:29 am (21.11.2022)	10:29 am (21.11.2022)
(f)	Time of Sampling completed (Hours)	10:10 am (22.11.2022)	10:10 am (22.11.2022)
(g)	Total time of sampling (Minutes)	24 hour (1426 minutes)	24 hour (1426 minutes)
2	Average sampling rate for PM (m ³ /minute)	1.170	NA
3	Average sampling rate for gas (LPM)	0.5	NA
4	TOTAL VOLUME OF AIR SAMPLED		
	• PM (m ³)	• 1668.654	• 23.768
	• GAS (liter)	• 713.1	

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	86.5	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	53.85	2.0 - 500	For 24 hour =60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part - 02): 2001 Reaffirmed: 2017	µg/m ³	14.23	5.0 - 1050	For 24 hour =80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part - 06): 2006 Reaffirmed: 2017	µg/m ³	20.84	6.0 - 750	For 24 hour =80

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TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No. ETRC/2811/11064/2022		Date of Report: 28.11.2022	
Name /Address/Type of Industry		M/s Zuari Industries 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)	19	19
(e)	Time of Sampling Started (Hours)	10:35 am (21.11.2022)	10:35 am (21.11.2022)
(f)	Time of Sampling completed (Hours)	10:19 am (22.11.2022)	10:19 am (22.11.2022)
(g)	Total time of sampling (Minutes)	24 hour (1429 minutes)	24 hour (1429 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)	• 1621.461	• 23.805
	• GAS (liter)	• 714.3	

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	81.6	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	49.57	2.0 - 500	For 24 hour =60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part - 02): 2001 Reaffirmed: 2017	µg/m ³	13.08	5.0 - 1050	For 24 hour =80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part - 06): 2006 Reaffirmed: 2017	µg/m ³	18.46	6.0 - 750	For 24 hour =80

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TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No. ETRC/2811/11065/2022		Date of Report: 28.11.2022	
Name /Address/Type of Industry		M/s Zuari Industries 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 (%)	56	56
(d)	Average ambient temperature (°C)	18	18
(e)	Time of Sampling Started (Hours)	10:22 am (22.11.2022)	10:22 am (22.11.2022)
(f)	Time of Sampling completed (Hours)	10:09 am (23.11.2022)	10:09 am (23.11.2022)
(g)	Total time of sampling (Minutes)	24 hour (1426 minutes)	24 hour (1426 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		
	• PM (m ³)	• 1653.696	• 23.752
	• GAS (liter)	• 712.8	

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	75.8	5.0 - 1200	For 24 hour =100
2	Particulate matters size less than 2.5 µm (PM _{2.5})	IS: 5182 (Part - 24): 2019	µg/m ³	49.26	2.0 - 500	For 24 hour =60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part - 02): 2001 Reaffirmed: 2017	µg/m ³	12.09	5.0 - 1050	For 24 hour =80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part - 06): 2006 Reaffirmed: 2017	µg/m ³	17.44	6.0 - 750	For 24 hour =80

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TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No. ETRC/2811/11066/2022		Date of Report: 28.11.2022	
Name /Address/Type of Industry		M/s Zuari Industries 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 (%)	56	56
(d)	Average ambient temperature (°C)	18	18
(e)	Time of Sampling Started (Hours)	10:38 am (22.11.2022)	10:38 am (22.11.2022)
(f)	Time of Sampling completed (Hours)	10:18 am (23.11.2022)	10:18 am (23.11.2022)
(g)	Total time of sampling (Minutes)	24 hour (1424 minutes)	24 hour (1424 minutes)
2	Average sampling rate for PM (m ³ /minute)	1.170	NA
3	Average sampling rate for gas (LPM)	0.5	NA
4	TOTAL VOLUME OF AIR SAMPLED		
	• PM (m ³)	• 1666.548	• 23.724
	• GAS (liter)	• 712.2	

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	76.9	5.0 - 1200	For 24 hour =100
2	Particulate matters size less than 2.5 µm (PM _{2.5})	IS: 5182 (Part - 24): 2019	µg/m ³	46.79	2.0 - 500	For 24 hour =60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part - 02): 2001 Reaffirmed: 2017	µg/m ³	12.59	5.0 - 1050	For 24 hour =80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part - 06): 2006 Reaffirmed: 2017	µg/m ³	16.45	6.0 - 750	For 24 hour =80

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ETRC/PM14/TES-REP/FT/36

TEST REPORT STACK EMISSION MONITORING AND ANALYSIS REPORT

Test Report Ref No. ETRC/2811/11067/2022		Date of Report: 28.11.2022
Name /Address/Type of Industry		M/s Zuari Industries 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	21.11.2022
(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)	20.0
(b)	Stack gas temperature (°C)	127.0
(c)	Stack gas velocity (m/sec)	11.41
(d)	Flow rate (LPM)	16
(e)	Sampling time (minutes)	63
(f)	Volume of air sampled (liters)	1008

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	46.1	2.0 - 1000	150

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TEST REPORT AMBIENT NOISE MONITORING AND ANALYSIS REPORT

Test Report Ref No. ETRC/2811/11068/2022		Date of Report: 28.11.2022
Name /Address/Type of Industry		M/s Zuari Industries 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	21/11/2022 (6:00 AM) to 22/11/2022 (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	Results
			DAY TIME (6:00 AM - 10:00 PM)	NIGHT TIME (10:00 PM - 6:00 AM)
1	Equivalent sound level	dB(A)	62.14	49.38

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

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ETRC/PM14/TEST-REP/FT/17

TEST REPORT WATER ANALYSIS

Test Report Ref No. ETRC/EPA/7374/2022	Date of Report: 28/11/2022
Name /Address/Type of Industry	M/s Zuari Industries 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 Water	6	Sample Collected By	ETRC
3	Sample received date	23.11.2022	7	Analysis Start Date	23.11.2022
4	Sample Quantity	5.0 liters	8	Analysis End Date	28.11.2022

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	402.8	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	58.6	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 23 rd Ed. 2017-3500 Mg, B	29.010	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	0.32	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	BDL	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	BDL	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 23 rd Ed. 2017-5530 C	BDL	0.001 - 0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 23 rd Ed. 2017-4500- SO ₄ ²⁻	28.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 23 rd Ed. 2017-2320 B	292.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 23 rd Ed. 2017-2340 C	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/7374/2022

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)	0.62	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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TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No. ETRC/3112/11050/2022		Date of Report: 31.12.2022	
Name /Address/Type of Industry		M/s Zuari Industries 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-PM ₁₀	DETAILS-PM _{2.5}
1(a)	Weather conditions	Clear	Clear
(b)	Wind direction	West to East	West to East
(c)	Average humidity (%)	58	58
(d)	Average ambient temperature (°C)	14	14
(e)	Time of Sampling Started (Hours)	10:19 am (21.12.2022)	10:19 am (21.12.2022)
(f)	Time of Sampling completed (Hours)	10:05 am (22.12.2022)	10:05 am (22.12.2022)
(g)	Total time of sampling (Minutes)	24 hour (1424 minutes)	24 hour (1424 minutes)
2	Average sampling rate for PM (m ³ /minute)	1.140	NA
3	Average sampling rate for gas (LPM)	0.5	NA
4	TOTAL VOLUME OF AIR SAMPLED		
	• PM (m ³)	• 1623.132	• 23.728
	• GAS (liter)	• 711.9	

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	85.9	5.0 - 1200	For 24 hour =100
2	Particulate matters size less than 2.5 µm (PM _{2.5})	IS: 5182 (Part - 24): 2019	µg/m ³	53.10	2.0 - 500	For 24 hour =60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part - 02): 2001 Reaffirmed: 2017	µg/m ³	14.95	5.0 - 1050	For 24 hour =80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part - 06): 2006 Reaffirmed: 2017	µg/m ³	21.09	6.0 - 750	For 24 hour =80

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TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No. ETRC/3112/11051/2022		Date of Report: 31.12.2022	
Name /Address/Type of Industry		M/s Zuari Industries 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 (%)	58	58
(d)	Average ambient temperature (°C)	14	14
(e)	Time of Sampling Started (Hours)	10:30 am (21.12.2022)	10:30 am (21.12.2022)
(f)	Time of Sampling completed (Hours)	10:12 am (22.12.2022)	10:12 am (22.12.2022)
(g)	Total time of sampling (Minutes)	24 hour (1415 minutes)	24 hour (1415 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		
	• PM (m ³)	• 1641.864	• 23.589
	• GAS (liter)	• 707.7	

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	83.4	5.0 - 1200	For 24 hour =100
2	Particulate matters size less than 2.5 µm (PM _{2.5})	IS: 5182 (Part - 24): 2019	µg/m ³	50.87	2.0 - 500	For 24 hour =60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part - 02): 2001 Reaffirmed: 2017	µg/m ³	12.85	5.0 - 1050	For 24 hour =80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part - 06): 2006 Reaffirmed: 2017	µg/m ³	18.24	6.0 - 750	For 24 hour =80

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TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No. ETRC/3112/11052/2022		Date of Report: 31.12.2022	
Name /Address/Type of Industry		M/s Zuari Industries 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 (%)	58	58
(d)	Average ambient temperature (°C)	15	15
(e)	Time of Sampling Started (Hours)	10:20 am (22.12.2022)	10:20 am (22.12.2022)
(f)	Time of Sampling completed (Hours)	10:03 am (23.12.2022)	10:03 am (23.12.2022)
(g)	Total time of sampling (Minutes)	24 hour (1420 minutes)	24 hour (1420 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		
	• PM (m ³)	• 1647.432	• 23.668
	• GAS (liter)	• 710.1	

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	78.2	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	49.01	2.0 - 500	For 24 hour =60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part - 02): 2001 Reaffirmed: 2017	µg/m ³	12.46	5.0 - 1050	For 24 hour =80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part - 06): 2006 Reaffirmed: 2017	µg/m ³	17.08	6.0 - 750	For 24 hour =80

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TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No. ETRC/3112/11053/2022		Date of Report: 31.12.2022	
Name /Address/Type of Industry		M/s Zuari Industries 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 (%)	58	58
(d)	Average ambient temperature (°C)	15	15
(e)	Time of Sampling Started (Hours)	10:30 am (22.12.2022)	10:30 am (22.12.2022)
(f)	Time of Sampling completed (Hours)	10:11 am (23.12.2022)	10:11 am (23.12.2022)
(g)	Total time of sampling (Minutes)	24 hour (1418 minutes)	24 hour (1418 minutes)
2	Average sampling rate for PM (m ³ /minute)	1.165	NA
3	Average sampling rate for gas (LPM)	0.5	NA
4	TOTAL VOLUME OF AIR SAMPLED		
	• PM (m ³)	• 1652.436	• 23.632
	• GAS (liter)	• 709.2	

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	77.2	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	48.24	2.0 - 500	For 24 hour =60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part - 02): 2001 Reaffirmed: 2017	µg/m ³	13.02	5.0 - 1050	For 24 hour =80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part - 06): 2006 Reaffirmed: 2017	µg/m ³	17.56	6.0 - 750	For 24 hour =80

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ETRC/PM14/TEST-REP/FT/36

TEST REPORT STACK EMISSION MONITORING AND ANALYSIS REPORT

Test Report Ref No. ETRC/3112/11054/2022		Date of Report: 31.12.2022
Name /Address/Type of Industry		M/s Zuari Industries 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	21.12.2022
(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)	15.0
(b)	Stack gas temperature (°C)	129.0
(c)	Stack gas velocity (m/sec)	11.39
(d)	Flow rate (LPM)	16
(e)	Sampling time (minutes)	65
(f)	Volume of air sampled (liters)	1040

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	45.8	2.0 - 1000	150

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TEST REPORT AMBIENT NOISE MONITORING AND ANALYSIS REPORT

Test Report Ref No. ETRC/3112/11055/2022		Date of Report: 31.12.2022
Name /Address/Type of Industry		M/s Zuari Industries 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	21/12/2022 (6:00 AM) to 22/12/2022 (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)	63.18	50.27

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

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ETRC/PM14/TE/REP/FT/17

TEST REPORT WATER ANALYSIS

Test Report Ref No. ETRC/3112/11515/2022	Date of Report: 31/12/2022
Name /Address/Type of Industry	M/s Zuari Industries 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 Water	6	Sample Collected By	ETRC
3	Sample received date	23.12.2022	7	Analysis Start Date	23.12.2022
4	Sample Quantity	5.0 liters	8	Analysis End Date	30.12.2022

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	394.0	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 23 rd Ed. 2017-4500-NH ₃ F	BDL	0.5 - 2	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 23 rd Ed. 2017-5540 C	BDL	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	56.2	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 23 rd Ed. 2017-3500 Mg, B	32.076	0.1 - 200	30	100
10	Chloride as Cl	mg/l	APHA 23 rd Ed. 2017-4500-Cl ⁻ B	26.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 23 rd Ed. 2017-4500 F C	0.40	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⁻	26.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 23 rd Ed. 2017-2320 B	288.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 23 rd Ed. 2017-2340 C	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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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)	0.04	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 23 rd Ed. 2017-3120 B (ICP-OES)	0.33	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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TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT


Test Report Ref No. ETRC/EPA/7644/2023		Date of Report: 09.01.2023	
Name /Address/Type of Industry		M/s Zuari Industries 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-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)	14	14
(e)	Time of Sampling Started (Hours)	10:23 am (02.01.2023)	10:23 am (02.01.2023)
(f)	Time of Sampling completed (Hours)	10:12 am (03.01.2023)	10:12 am (03.01.2023)
(g)	Total time of sampling (Minutes)	24 hour (1426 minutes)	24 hour (1426 minutes)
2	Average sampling rate for PM (m ³ /minute)	1.165	NA
3	Average sampling rate for gas (LPM)	0.5	NA
4	TOTAL VOLUME OF AIR SAMPLED		
	• PM (m ³)	• 1660.824	• 23.758
	• GAS (liter)	• 712.8	

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	85.9	5.0 - 1200	For 24 hour =100
2	Particulate matters size less than 2.5 µm (PM _{2.5})	IS: 5182 (Part - 24): 2019	µg/m ³	52.61	2.0 - 500	For 24 hour =60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part - 02): 2001 Reaffirmed: 2017	µg/m ³	14.56	5.0 - 1050	For 24 hour =80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part - 06): 2006 Reaffirmed: 2017	µg/m ³	21.08	6.0 - 750	For 24 hour =80

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TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No. ETRC/EPA/7645/2023		Date of Report: 09.01.2023	
Name /Address/Type of Industry		M/s Zuari Industries 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)	14	14
(e)	Time of Sampling Started (Hours)	10:34 am (02.01.2023)	10:34 am (02.01.2023)
(f)	Time of Sampling completed (Hours)	10:18 am (03.01.2023)	10:18 am (03.01.2023)
(g)	Total time of sampling (Minutes)	24 hour (1415 minutes)	24 hour (1415 minutes)
2	Average sampling rate for PM (m ³ /minute)	1.130	NA
3	Average sampling rate for gas (LPM)	0.5	NA
4	TOTAL VOLUME OF AIR SAMPLED		
	• PM (m ³)	• 1599.402	• 23.576
	• GAS (liter)	• 707.7	

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	80.5	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	48.35	2.0 - 500	For 24 hour =60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part - 02): 2001 Reaffirmed: 2017	µg/m ³	13.24	5.0 - 1050	For 24 hour =80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part - 06): 2006 Reaffirmed: 2017	µg/m ³	17.59	6.0 - 750	For 24 hour =80

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TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No. ETRC/EPA/7646/2023		Date of Report: 09.01.2023	
Name /Address/Type of Industry		M/s Zuari Industries 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 (%)	56	56
(d)	Average ambient temperature (°C)	15	15
(e)	Time of Sampling Started (Hours)	10:28 am (03.01.2023)	10:28 am (03.01.2023)
(f)	Time of Sampling completed (Hours)	10:20 am (04.01.2023)	10:20 am (04.01.2023)
(g)	Total time of sampling (Minutes)	24 hour (1432 minutes)	24 hour (1432 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)	• 1639.182	• 23.858
	• GAS (liter)	• 715.8	

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	76.2	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	49.88	2.0 - 500	For 24 hour =60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part - 02): 2001 Reaffirmed: 2017	µg/m ³	12.65	5.0 - 1050	For 24 hour =80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part - 06): 2006 Reaffirmed: 2017	µg/m ³	17.86	6.0 - 750	For 24 hour =80

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TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No. ETRC/EPA/7647/2023		Date of Report: 09.01.2023	
Name /Address/Type of Industry		M/s Zuari Industries 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 (%)	56	56
(d)	Average ambient temperature (°C)	15	15
(e)	Time of Sampling Started (Hours)	10:35 am (03.01.2023)	10:35 am (03.01.2023)
(f)	Time of Sampling completed (Hours)	10:24 am (04.01.2023)	10:24 am (04.01.2023)
(g)	Total time of sampling (Minutes)	24 hour (1432 minutes)	24 hour (1432 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)	• 1639.869	• 23.842
	• GAS (liter)	• 716.1	

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	77.3	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	48.65	2.0 - 500	For 24 hour =60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part - 02): 2001 Reaffirmed: 2017	µg/m ³	13.29	5.0 - 1050	For 24 hour =80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part - 06): 2006 Reaffirmed: 2017	µg/m ³	17.08	6.0 - 750	For 24 hour =80

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TEST REPORT STACK EMISSION MONITORING AND ANALYSIS REPORT

Test Report Ref No. ETRC/EPA/7648/2023		Date of Report: 09.01.2023
Name /Address/Type of Industry		M/s Zuari Industries 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	02.01.2023
(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)	14.0
(b)	Stack gas temperature (°C)	129.0
(c)	Stack gas velocity (m/sec)	11.39
(d)	Flow rate (LPM)	16
(e)	Sampling time (minutes)	65
(f)	Volume of air sampled (liters)	1040

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	47.5	2.0 - 1000	150

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TEST REPORT AMBIENT NOISE MONITORING AND ANALYSIS REPORT

Test Report Ref No. ETRC/EPA/7649/2023		Date of Report: 09.01.2023	
Name /Address/Type of Industry		M/s Zuari Industries 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	03/01/2023 (6:00 AM) to 04/01/2023 (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)	63.45	50.25

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

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TEST REPORT WATER ANALYSIS

Test Report Ref No. ETRC/0901/11516/2023	Date of Report: 31/01/2023
Name /Address/Type of Industry	M/s Zuari Industries 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 Water	6	Sample Collected By	ETRC
3	Sample received date	04.01.2023	7	Analysis Start Date	04.01.2023
4	Sample Quantity	5.0 liters	8	Analysis End Date	09.01.2023

TEST RESULT

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-4): 1983 Reaffirmed: 2017	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-5): 1983 Reaffirmed: 2017	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 23 rd Ed. 2017-4500 H ⁺	7.5	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 23 rd Ed. 2017-2130 B	BDL	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 1984 Reaffirmed: 2017	428.5	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	68.8	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 23 rd Ed. 2017-3500 Mg, B	24.30	0.1 - 200	30	100
10	Chloride as Cl	mg/l	APHA 23 rd Ed. 2017-4500-Cl ⁻ B	30.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 23 rd Ed. 2017-4500 F ⁻ C	0.35	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	BDL	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	BDL	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 23 rd Ed. 2017-5530 C	BDL	0.001 - 0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 23 rd Ed. 2017-4500- SO ₄ ²⁻	30.0	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/0901/11516/2023

21	Iron as Fe	mg/l	APHA 23 rd Ed. 2017-3120 B (ICP-OES)	0.14	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 23 rd Ed. 2017-3120 B (ICP-OES)	0.06	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 23 rd Ed. 2017-3120 B (ICP-OES)	0.24	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/38

TEST REPORT SOIL ANALYSIS

Test Report Ref No. ETRC/0901/11517/2023	Date of Report: 31/01/2023
Name /Address/Type of Industry	M/s Zuari Industries 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
3	Sample received date	04.01.2023	7	Analysis Start Date	04.01.2023
4	Sample Quantity	500 gm	8	Analysis End Date	13.01.2023

TEST REPORT

Sr. No.	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection
1	pH	-	IS: 2720 (Part-26): 1987 Reaffirmed: 2016	7.3	1 - 14
2	Electrical Conductivity	µmhos/cm	IS: 14767:2000, Reaffirmed 2016	304.0	1 - 40000
3	Moisture content	%	IS: 2720 (Part -2): 1973 Reaffirmed: 2015	4.02	1.0 - 50
4	Sulphur	Kg/Hec	IS: 14685: 1999 Reaffirmed: 2014	12.60	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	0.35	0.3 - 500
7	Zinc	mg/kg	ETRC/ LABSOPS/08, ISSUE NO.1 Dated 10.08.2015	9.36	1.0 - 500
8	Iron	mg/kg	ETRC/ LABSOPS/09, ISSUE NO.1 Dated 10.08.2015	96.4	5.0 - 500
9	Manganese	mg/kg	ETRC/ LABSOPS/10, ISSUE NO.1 Dated 10.08.2015	9.2	5.0 - 500

BDL= Below Detection Limit

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(Sandeep Kr Verma)
Lab-Incharge




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TEST REPORT SOIL ANALYSIS

Test Report Ref No. ETRC/0901/11518/2023	Date of Report: 31/01/2023
Name /Address/Type of Industry	M/s Zuari Industries 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
3	Sample received date	04.01.2023	7	Analysis Start Date	04.01.2023
4	Sample Quantity	500 gm	8	Analysis End Date	13.01.2023

TEST REPORT

Sr. No.	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection
1	pH	-	IS: 2720 (Part-26): 1987 Reaffirmed: 2016	7.2	1 - 14
2	Electrical Conductivity	µmhos/cm	IS: 14767:2000, Reaffirmed 2016	302.0	1 - 40000
3	Moisture content	%	IS: 2720 (Part -2): 1973 Reaffirmed: 2015	3.98	1.0 - 50
4	Sulphur	Kg/Hec	IS: 14685: 1999 Reaffirmed: 2014	13.56	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	0.35	0.3 - 500
7	Zinc	mg/kg	ETRC/ LABSOPS/08, ISSUE NO.1 Dated 10.08.2015	8.62	1.0 - 500
8	Iron	mg/kg	ETRC/ LABSOPS/09, ISSUE NO.1 Dated 10.08.2015	95.6	5.0 - 500
9	Manganese	mg/kg	ETRC/ LABSOPS/10, ISSUE NO.1 Dated 10.08.2015	10.5	5.0 - 500

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ETRC/PM14/TEST-REP/FT/17

TEST REPORT WATER ANALYSIS

Test Report Ref No. ETRC/1602/11519/2023	Date of Report: 16/02/2023
Name /Address/Type of Industry	M/s Zuari Industries 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 Water	6	Sample Collected By	Industry self
3	Sample received date	10.02.2023	7	Analysis Start Date	10.02.2023
4	Sample Quantity	5.0 liters	8	Analysis End Date	15.02.2023

TEST RESULT

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-4): 1983 Reaffirmed: 2017	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-5): 1983 Reaffirmed: 2017	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 23 rd Ed. 2017-4500 H ⁺	7.4	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 23 rd Ed. 2017-2130 B	BDL	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 1984 Reaffirmed: 2017	402.6	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 23 rd Ed. 2017-4500-NH ₃ F	BDL	0.5 - 2	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 23 rd Ed. 2017-5540 C	BDL	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	61.8	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 23 rd Ed. 2017-3500 Mg, B	29.010	0.1 - 200	30	100
10	Chloride as Cl	mg/l	APHA 23 rd Ed. 2017-4500-Cl ⁻ B	28.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 23 rd Ed. 2017-4500 F C	0.36	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⁻	30.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 23 rd Ed. 2017-2320 B	308.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 23 rd Ed. 2017-2340 C	284.0	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)	0.14	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)	0.47	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	

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ETRC/PM14/TEST-REP/FT/17

TEST REPORT WATER ANALYSIS

Test Report Ref No. ETRC/EPA/8094/2023	Date of Report: 17/03/2023
Name /Address/Type of Industry	M/s Zuari Industries 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 Water	6	Sample Collected By	Industry self
3	Sample received date	11.03.2023	7	Analysis Start Date	11.03.2023
4	Sample Quantity	5.0 liters	8	Analysis End Date	16.03.2023

TEST RESULT

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-4): 1983 Reaffirmed: 2017	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-5): 1983 Reaffirmed: 2017	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 23 rd Ed. 2017-4500 H ⁺	7.5	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 23 rd Ed. 2017-2130 B	BDL	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 1984 Reaffirmed: 2017	398.6	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	55.8	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	0.35	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⁻	28.0	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	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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21	Iron as Fe	mg/l	APHA 23 rd Ed. 2017-3120 B (ICP-OES)	0.10	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 23 rd Ed. 2017-3120 B (ICP-OES)	0.03	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 23 rd Ed. 2017-3120 B (ICP-OES)	0.76	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	


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QM



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

Form 8 (E)

[See rules 15(2)]

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

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: REG025947**VALID FROM 21/05/2022 TO 20/05/2027****Serial No.: 202204000391**

Name of the Owner	SANJAY SINGH		
Address of the Applicant	Vill - Khamaria Pandit, Aira, Estate District - Lakhimpur Kheri U.P.	Application No.	LMPK0422RIN0051
Date of Submission	15/04/2022	Specimen Signature	
Company Name	Gobind Sugar Mills Limited Unit Distillery	Company Address	VILLAGE: KHAMARIA PANDIT, AIRA ESTATE, TEHSIL: DHA

Location Particulars

District	Lakhimpur Kheri	Block	ISANAGAR
Plot No./Khasra No.	Land Details Enclosed.	Municipality/Corporation	No
Ward No./Holding No.			Land Details Enclosed.

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	12/02/2017		
Type of Well	Tube Well/Boring	Depth of the Well (In meter)	90.00
Purpose of well	Industrial	Assembly Size(For Tube Well)	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	H.P. of the Pump	50.00
Operational Device	Electric Motor	Rate of Withdrawal (m³/hr.)	124.00
Date of Energization (In Case of Electric Pump)	12/02/2017		
Maximum Allowable Rate of Withdrawal (m³/hr.):	124.00	Maximum Allowable Running Hours Per Day:	5.00
Maximum Allowable Annual Extraction of Ground Water:	223200	Recharge Required	0.00
Reason for renewal of N.O.C.	CGWA NOC expiry- 19/05/2022		
एन.ओ.सी. के नवीनीकरण का कारण			

Against Case

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

Conditions

- (1) In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- (2) No change of location, design, rate of withdrawal and pumping device in respect of the proposed well as indicated at SL (2) and (3) of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this authorization.
- (3) For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters(conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well as shown in item 3(k) shall not exceed to the recorded rate from water meters
- (4) The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands.
- (5) In case of any change of ownership of the existing well, fresh registration has to be obtained.
- (6) No change of location, design, rate of withdrawal and pumping device in respect of the existing well as indicated at Sl. (2) and (3) of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration.
- (7) n case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage, this registration is liable for cancellation.
- (8) The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- (9) Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis.
- (10) Guidelines for Installation of Piezometers and their Monitoring
- Piezometer is a borewell /tube well used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing whenever needed. General guidelines for installation of piezometers are as follows for compliance of NOC:
 - The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4” to 6”.
 - The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometer are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
 - No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

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

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

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

Date :16/06/2022

Place:Lakhimpur Kheri

This certificate is electronically generated and does not require digital signature

Annexure - 6



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: gsmf.aira@adventz.com
CIN No: L15421WB1952PLC020577, www.gobindsugar.com

Annexure - 7

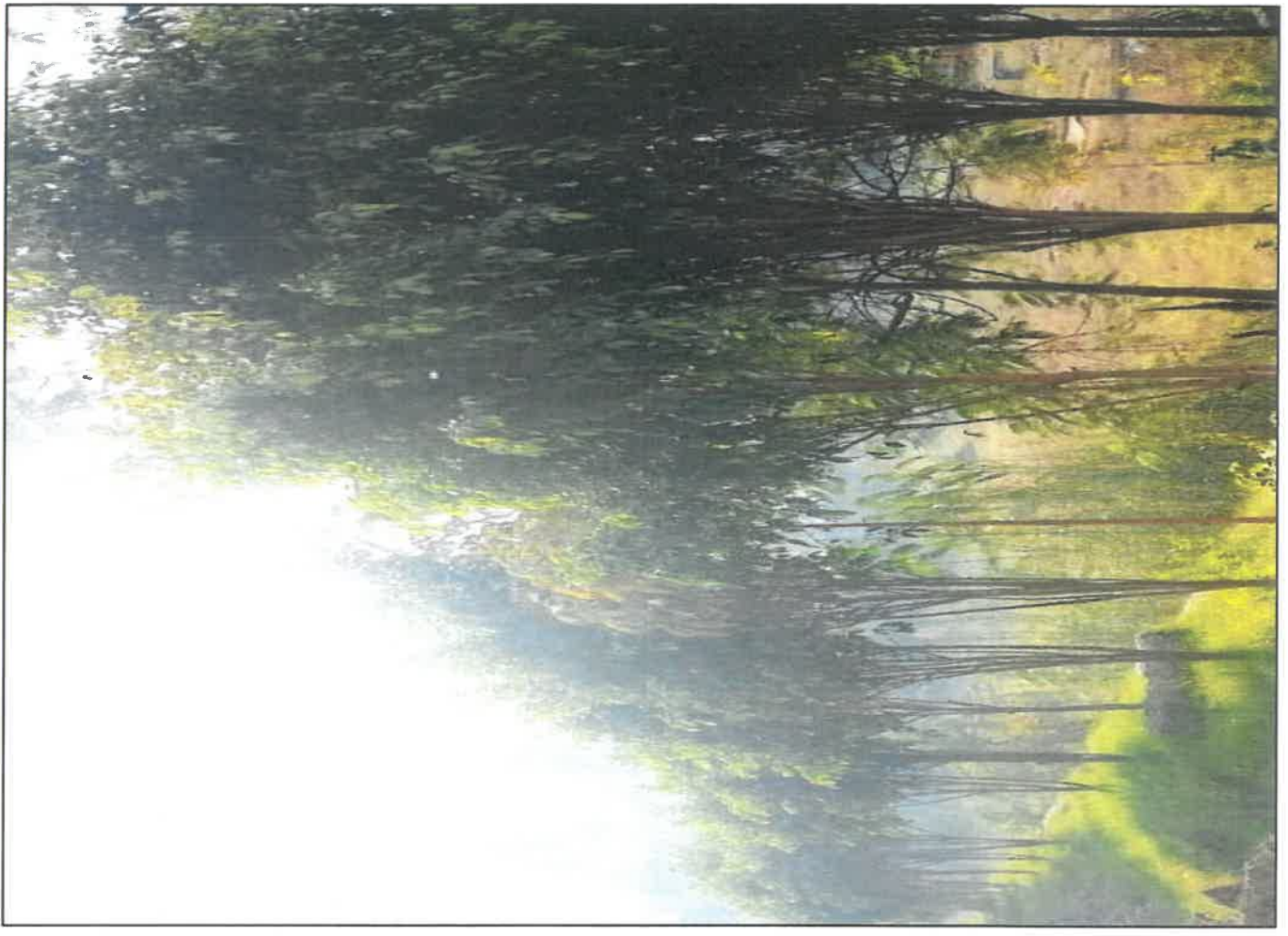
GREEN BELT



GREEN BELT



GREEN BELT



GREEN BELT



Plantation Green Belt



Plantation Green Belt



Plantation Green Belt



Annexure - 8



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 contiguous/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.-H25293
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. 1123/03
Gobind Sugar Mills Ltd.
Airo Estate, Lalitpur

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.-H23203
Gobind Sugar Mills Ltd
Aira Estate, Lakhimpur

Annexure - 9

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 concerns 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

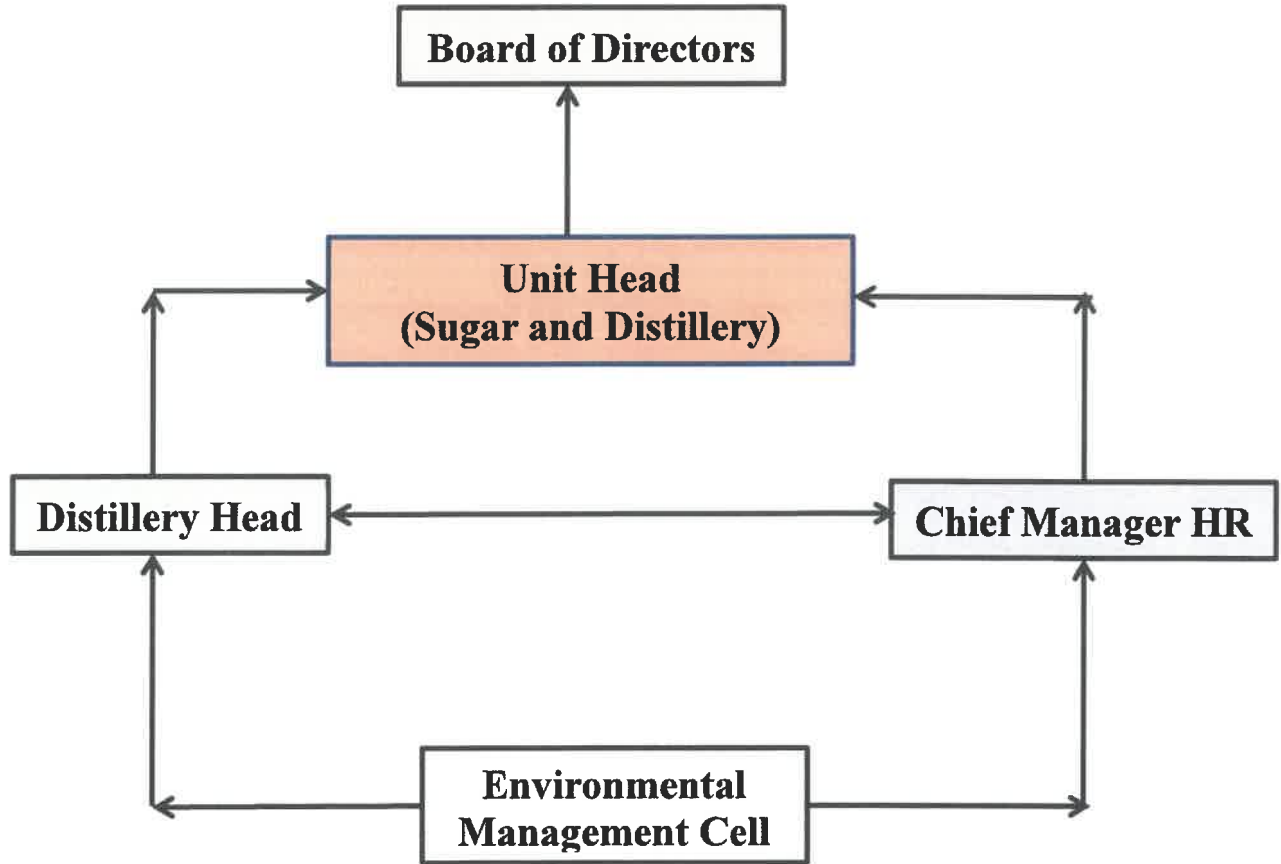
Copy for information to:

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)



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

Annexure - 11

Zuari Industries Limited					
F.Y. Wise Detail of CSIR (Distillery Div)					
Sr. No.	F.Y.	Exp. Details	Amount	Grand Total	
1	2019-2020	Sanitizer	7,316	7,316	
2	2020-2021	Sanitizer	5,44,798	5,44,798	
	2021-2022				
	A	Sanitizer	3,38,473		
3	B	CHC Gola Oxygen Plant	4,30,484		
	C	Girls Toilet (BBLC COLLEGE)	2,63,966		
	D	Covid Mask	31,800		
	2022-2023			10,64,723	
	A	Solar Light	3,32,708		
	B	Water drainage-Nala	10,54,519		
	C	R.O.	2,36,000		
	D	RCC Drain & Road-Near Shakari Samiti	6,79,000		
	E	Road at Samarda	1,53,000		
4	F	Sanitizer	9,92,455		
	G	Indian Flag	1,25,600		
	H	Bagasse for fire in cold season	1,23,200		
	I	Blanket Distribution	1,32,353		
	J	CHC Hospital Khamaria & Eye Hospital, Sitapur	17,000		
	K	Mask	40,000		
	L	BBLC College -Building Repairing	15,165		
	2023-2024				
5	A	Solar Light	9,000	39,01,000	
	B	Submersible Pump & R.O. Water Purifier	94,400		
	C	Village Election	5,600		
Grand Total				1,09,000	
				56,26,837	

सूचना

सर्वसाधारण को सूचित किया जाता है कि मेसर्स गोविन्द शुगर मिल्स लि., खमरिया पंडित, ऐरा स्टेट जनपद- लखीमपुर खीरी द्वारा स्थापित 60 किलो./दिन क्षमता की आसवनी इकाई एवं 2.2 मेगावाट क्षमता का सह विद्युत उत्पादन संयंत्र के प्रस्तावित विस्तारण 60 से 100 किलो./ 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 खमरिया 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 खमरिया पंडित लखीमपुर खीरी।

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