



सत्यमेव जयते

File No: J-11011/339/2006-IA II (I)  
Government of India  
Ministry of Environment, Forest and Climate Change  
IA Division

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Dated 04/09/2023



To,

Mr. N.B. Singh  
BAJAJ HINDUSTHAN SUGAR LIMITED  
Bajaj Hindusthan Sugar Ltd. Gola Gokarannath, Lakhimpur Kheri, U.P. , KHERI, UTTAR PRADESH,  
, 262802  
nbsingh.gol@bajajhindusthan.com

**Subject:** Grant of EC under the provision of the EIA Notification 2006-regarding.

**Sir/Madam,**

This is in reference to your application for Grant of EC under the provision of the EIA Notification 2006-regarding in respect of project Expansion of Distillery from 200 KLPD (B-heavy Molasses/Sugar Syrup) to 630 KLPD (B-heavy Molasses/Sugar Syrup/Grain) along with Co-generation Power Plant from 3.0 MW to 12 MW under Ethanol Blending Programme at Village Khambharkhera & Kunwarpur, Tehsil & District Lakhimpur Kheri, Uttar Pradesh by M/s. Bajaj Hindusthan Sugar Limited (Khambhar Khera Distillery Division) submitted to Ministry vide proposal number IA/UP/IND2/433354/2023 dated 08/08/2023.

2. The particulars of the proposal are as below :

(i) Ec Identification No.	EC23C2503UP5256169N
(ii) File No.	J-11011/339/2006-IA II (I)
(iii) Clearance Type	Expansion EC
(iv) Category	B2
(v) Project/Activity Included Schedule No.	5(g) Distilleries
(vi) Sector	Industrial Projects - 2 Expansion of Distillery from 200 KLPD (B-heavy Molasses/Sugar Syrup) to 630 KLPD (B-heavy Molasses/Sugar Syrup/Grain) along with Co-generation Power Plant from 3.0 MW to 12 MW under Ethanol Blending Programme at Village Khambharkhera & Kunwarpur, Tehsil & District Lakhimpur Kheri, Uttar Pradesh by M/s. Bajaj Hindusthan Sugar Limited (Khambhar Khera Distillery Division)
(vii) Name of Project	

<b>(viii) Name of Company/Organization</b>	BAJAJ HINDUSTHAN SUGAR LIMITED
<b>(ix) Location of Project (District, State)</b>	KHERI, UTTAR PRADESH
<b>(x) Issuing Authority</b>	MoEF&CC
<b>(xii) Applicability of General Conditions</b>	yes
<b>(xiii) Applicability of Specific Conditions</b>	yes

3. The Ministry of Environment, Forest and Climate Change has examined the proposal seeking environmental clearance for expansion of Distillery from 200 KLPD (B-Heavy Molasses/Sugar Syrup) to 630 KLPD (B-Heavy Molasses/Sugar Syrup/Grain) along with Co-generation Power Plant from 3.0 MW to 12 MW under Ethanol Blending Programme at Village Khambharkhera & Kunwarpur, Tehsil & District Lakhimpur Kheri, Uttar Pradesh M/s. Bajaj Hindusthan Sugar Limited (Khambhar Khera Distillery Division).

4. As per the MoEF&CC, Notification number S.O. 345(E), dated 17<sup>th</sup> January, 2019, notification number S.O. 750(E), dated 17<sup>th</sup> February, 2020, S.O. 980 (E) dated 02<sup>nd</sup> March, 2021 & S.O. 2339(E), dated 16<sup>th</sup> June, 2021 a special provision in the EIA Notification, 2006 (Schedule 5 (g)), a special provision in the EIA Notification, 2006-(Schedule 5(g)) "Expansion of sugar manufacturing units or distilleries for production of ethanol, having Prior Environment Clearance (EC) for existing unit, to be used completely for Ethanol Blended Petrol (EBP) Programme only, as per self-certification in form of an affidavit by the Project Proponent, shall be appraised as category 'B2' projects."

5. The details of products and capacity are placed at **Annexure-2**.

6. Ministry of Environment & Forests has issued Environmental Clearance to the existing industry for a capacity of 160 KLPD vide F. no. J-11011/339/2006-IA II (I) dated 7<sup>th</sup> December, 2006. Amendment in Environmental Clearance was obtained from Ministry of Environment & Forests for the implementation of Bio-Methanation in three Distillery units each of capacity 160 KLPD at Gangnauli (Sahranpur), Khambhar Khera (Lakhimpur kheri) and at Rudauli (Basti) in Uttar Pradesh vide F. no. J-11011/339/2006-IA II (I) dated 14<sup>th</sup> November, 2008. As per notification S.O. 980 (E) dated 2<sup>nd</sup> March, 2021, issued by Ministry of Environment Forest & Climate Change (GOI) the company obtained expansion of Distillery under No increase in Pollution load, vide ref no. 16/UPHOC5/EIA/LAKHIMPUR KHIRI/2021 dated 12/07/2021, from 160 KLPD to 200 KLPD B-heavy Molasses/Sugar Syrup based Operation and if using C-heavy Molasses as raw material the production capacity will be 160 KLPD. Certified Compliance report of Existing EC has been obtained from Integrated Regional Office, MoEFCC, Lucknow vide File no. IV/ENV/UP/IND-98/273/2008/210 dated 22.08.2022. The EAC was satisfied with the response of PP.

7. Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16<sup>th</sup> June, 2021. It was informed that there is no litigation is pending against the project.

8. Total plant area after expansion will be 24.3 Ha (60 Acres). No additional land will be acquired for the expansion project as the same will be done within existing plant premises. Out of the total plant area, 8.02 hectares, i.e., 33 % of the total plant area has already been developed as greenbelt & plantation and the same will be maintained under greenbelt & plantation in and around plant premises. The estimated project cost is Rs. 669.43 Crores. Capital cost of EMP would be Rs. 65.0 Crores and recurring cost for EMP would be Rs. 6.0 Crores per annum. Industry proposes to allocate Rs. 6.69 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 340 persons as direct.

9. There are no National Parks, Protected Forest, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, etc. within 10 km distance. Reserved forests: Sadiyapur RF (~9.8 km in WNW direction) & Rehuwa RF (~9.8 km in west direction). Water bodies: Purani Chauka Nadi (~0.5 km in NW direction), Kandwa Nadi (~2.0 km in SSE direction), Junai Nadi (~2.5 km in WSW direction), Aliganj Main canal (~3.5 km in South direction), UL river (~5.5 km in SSW direction) & Sarda main canal (~9.5 km in ESE direction) are present within 10 km radius. NOC has been obtained from Office of the Executive Engineer vide

letter no.1589/bakshal/F-2 dated 19.07.2023 stating that the industry does not fall in flood prone zone corresponding to one in 25 years.

**10.** AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the expansion project would be  $0.45\mu\text{g}/\text{m}^3$ ,  $0.18\mu\text{g}/\text{m}^3$ ,  $0.76\mu\text{g}/\text{m}^3$  and  $0.81\mu\text{g}/\text{m}^3$  with respect to  $\text{PM}_{10}$ ,  $\text{PM}_{2.5}$ ,  $\text{SO}_2$  and  $\text{NO}_x$ . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

**11.** Total fresh water requirement after expansion will be 2872 CMD (during B-heavy Molasses based Distillery operation), 1959 CMD (during Sugar syrup-based Distillery operation), 3070 CMD (during Grain based Distillery operation) which will be met from ground water. However, the Committee suggested that fresh water requirement shall not exceed 4 KL per KL alcohol produced. NOC has been obtained by the company from Ground Water Department (Namami Gange & Rural Water Supply Dpt.) Ministry of Jal Shakti vide NOC no. NOC023904 & NOC041446 dated 22.06.2021 valid till 21.06.2026. Application has also been submitted to Ground Water Department (Namami Gange & Rural Water Supply Dpt.) Ministry of Jal Shakti for additional abstraction of 2175 KLPD groundwater vide Application No. LMPK0623NIN0095 & LMPK0623NIN0096. Existing effluent generation is 1572 CMD which is treated through Condensate Polishing Unit /Effluent Treatment Plant of capacity 1600 CMD. Proposed effluent generation will be 3460 CMD from distillery which will be treated through proposed Condensate Polishing Unit of Capacity 4200 CMD after expansion. In Molasses based operation, spent wash (5200 TPD) generated during B-Heavy Molasses based Operation & (5079 TPD) during Sugar syrup based operation generated from the analyzer column during distillation will be concentrated in Multi Effect Evaporator and concentrated spent wash will be burnt in incineration boiler. In grain based operation, raw stillage (3840 TPD) will be sent to decanter followed by MEE followed by dryer to produce DDGS. Domestic waste water is being/will be treated in STP of capacity 10 KLPD. The plant is will be based on Zero Liquid discharge system and treated effluent/water will not be discharged outside the factory premises.

**12.** Total power requirement after expansion for Molasses based distillery will be 11.70 MW, for Sugar Syrup based Distillery will be 9.67 MW, for Grain based Distillery will be 12 MW, which will be sourced from 12.0 MW proposed co-generation power plant and Co-generation power plant of adjacent Sugar mill. Existing distillery has 60 TPH Slop/bagasse fired boiler & existing sugar mill has 3 x 90 TPH Bagasse fired boiler. 55 TPH Slop/bagasse fired boiler will be installed in distillery. APCE Electrostatic Precipitator (ESP) with stack height of 90 m has been installed with existing distillery boiler for controlling the particulate emissions within the statutory limit. APCE Wet scrubber with stack height of 60 m (One common stack for all three boilers) has been installed with existing sugar mill boiler for controlling the particulate emissions within the statutory limit. APCE Electrostatic Precipitator (ESP) with stack height of 80 m will be installed with distillery for controlling the particulate emissions within the statutory limit of  $50\text{ mg}/\text{Nm}^3$  for the proposed boiler. Industry has proposed 2 x 1500 KVA DG Sets as part of expansion which will be used as standby during power failure and stack height (8 m) will be provided as per CPCB norms.

### **13. Details of Process emissions generation and its management:**

- APCE Electrostatic Precipitator (ESP) with stack height of 90 m has been installed with existing 60 TPH distillery boiler for controlling the particulate emissions within the statutory limit. APCE Wet scrubber with stack height of 60 m (One common stack for all three 3x90 TPH boilers) has been installed with existing sugar mill boiler for controlling the particulate emissions within the statutory limit. APCE Electrostatic Precipitator (ESP) with stack height of 80 m will be installed with distillery for controlling the particulate emissions within the statutory limit of  $50\text{ mg}/\text{Nm}^3$  for the proposed boiler.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- $\text{CO}_2$  (507 TPD) generated during the fermentation process is being/will be collected and sold to authorized vendors as per local demand.

#### 14. Details of solid waste/Hazardous waste generation and its management:

- Concentrated spent wash (1103 m<sup>3</sup>/day during molasses based distillery operation; 254 m<sup>3</sup>/day during sugar syrup based distillery operation) will be burnt in incineration boiler.
- During grain based distillery operation, DDGS (Distilled Dried Grains Stillage) (296 TPD) is being/will be sold as cattle/fish/prawn feed.
- Fly ash (28 TPD) generated during bagasse-based operation & ash (132 TPD) generated during Conc. Slop based operation is rich in Potash and supplied to Potash Granulation plant and will also be supplied to nearby farmers in covered vehicles only to use as a fertilizer.
- Used or spent oil (1.0 Ton/Annum) and Contaminated cotton rags or other cleaning materials (100 Kg/annum) generated from plant machinery/gear boxes/Plant operations as hazardous waste is being/will be given to authorized vendors.
- ETP/CPU sludge (5.8 TPD), and STP Sludge (0.005 TPD) is being/will be used as manure.

15. As per Notification S.O 2339(E), dated 16<sup>th</sup> June, 2021, PP has submitted self- certification in the form of notarized affidavit declaring that the proposed expansion capacity of 430 KLPD will be used for manufacturing fuel ethanol only.

16. During deliberations, EAC discussed following issues:

- The company has proposed 15% of total power consumption of the unit in form of solar lights/solar plant/solar panels/solar gadgets etc. within plant and to the nearby areas.
- The company will spend Rs. 6.69 Crores for socio-economic development activities in nearby areas before the commissioning of the plant and funds will be spent while partnering with Government administration.
- For existing operations of 200 KLPD Distillery, 60 TPH Slop/Bagasse fired Boiler has already been installed inside plant premises with ESP as APCE & stack height of 90 m to control the particulate and gaseous emissions as per CPCB guidelines. After proposed expansion of Distillery, Existing 60 TPH Slop/bagasse fired boiler with ESP as APCE & 90 m stack height and existing sugar mill boilers will be utilized during grain & sugar syrup-based operations. During B-heavy Molasses based operation, Existing 60 TPH Slop/bagasse fired boiler with ESP as APCE & 90 m stack height and a new Proposed 55 TPH slop/Bagasse fired boiler with ESP as APCE & 80 m stack height will be used. Particulate and gaseous emissions will be within statutory norms of 50 mg/Nm<sup>3</sup> for proposed boiler. Energy, steam & power balance has been submitted. For interlinking of power & steam with own adjacent sugar mill, internal agreement has been submitted.
- After expansion, freshwater requirement for the distillery shall not exceed 4 KL/KL alcohol production (i.e. 2520 KLPD for 630 KLPD Distillery) which will be sourced from groundwater. The Committee suggested that during cane crushing season, treated sugar condensate shall be used for distillery manufacturing process in order to reduce the fresh water requirement.
- After expansion, the company will develop 33% of total project area, i.e., 8.02 ha as greenbelt & plantation (density of 2500 indigenous trees/ha) with total trees of 20,050. At present, 12030 trees have already been planted & additional 8,020 trees as Gap filling for densification will be done. A 3-tier dense plantation will be done by the company towards plant boundary at all places which will be completed within 1 year (December, 2023). Only native/indigenous species will be planted in consultation with local DFO & sanctioned forest working plan of the region. Detailed greenbelt action plan with tentative species to be planted has been submitted.
- Process condensate, cooling tower, boiler blow down in distillery & effluent from Unit & Co-generation Power Plant (1572 KLPD) is being treated in existing CPU of capacity 1600 KLPD. However, after the

proposed expansion, the increased volume of the generated effluent (3460 KLPD) will be treated in a new proposed CPU with a capacity of 4200 KLPD. Hence, the total capacities of both CPUs will be 5800 KLPD.

- The bulk ethanol storage tanks have been reorganized in the alcohol storage section. Revised plant layout for the same is submitted.

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

**16.** The proposal was considered by the EAC held on 26<sup>th</sup> – 27<sup>th</sup> July, 2023 in the Ministry, wherein the project proponent and the accredited Consultant M/s. J.M. EnviroNet Pvt. Ltd. (NABET certificate no. NABET/EIA/2023/SA 0172 and validity till 7<sup>th</sup> August, 2023) made a detailed presentation on the salient features of the project. The Committee **recommended** the project for grant of environmental clearance.

**17.** The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the EMP report prepared and submitted by the Consultant accredited by the QCI/NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

**18.** The Committee noted that the EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

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

**20.** Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), Ministry of Environment, Forest and Climate Change hereby accords environmental clearance for **proposed expansion of Distillery from 200 KLPD (B-Heavy Molasses/Sugar Syrup) to 630 KLPD (B-Heavy Molasses/Sugar Syrup/Grain) along with Co-generation Power Plant from 3.0 MW to 12 MW under Ethanol Blending Programme at Village Khambharkhera & Kunwarpur, Tehsil & District Lakhimpur Kheri, Uttar Pradesh M/s. Bajaj Hindusthan Sugar Limited (Khambhar Khara Distillery Division)**, under the provisions of the EIA Notification, 2006, and the amendments therein, subject to compliance of the terms and conditions at Annexure-1.

**21.** The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

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

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

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

25. This issues with the approval of the competent authority.

(A. N. Singh)  
Scientist-'E'

### Copy To

1. The Secretary, Department of Environment, Government of Uttar Pradesh, 601, Babu Bhawan, Secretariat, Vidhan Sabha Marg, Lucknow (UP) – 1
2. The Regional Officer, Ministry of Env., Forest and Climate Change, Integrated Regional Office, Kendriya Bhawan, 5<sup>th</sup> Floor, Sector “H”, Aliganj, Lucknow - 226020
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -32
4. The Member Secretary, Uttar Pradesh Pollution Control Board, Building No. TC-12V, Vibhuti Khand, Gomti Nagar, Lucknow – 10
5. The Member Secretary, Central Ground Water Authority, 18/11, Jamnagar House, Mansingh Road, New Delhi – 11.
6. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi
7. The District Collector, DistrictLakhimpur Kheri, Uttar Pradesh
8. Guard File/Monitoring File/Parivesh portal/Record File

**Annexure 1**

### **Specific EC Conditions for (Distilleries)**

#### **1. Specific Condition**

<b>S. No</b>	<b>EC Conditions</b>
<b>1.1</b>	1. As per the Notification S.O. 2339(E), dated 16 <sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 430 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

S. No	EC Conditions
	<p>2. The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented (Annexure 3).</p> <p>3. EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.</p> <p>4. NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing water from Ground water. State Pollution Control Board shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission. No ground water shall be used for the plant operations.</p> <p>5. Total Fresh water requirement after expansion shall not exceed 2520 m<sup>3</sup>/day which will be met from Ground water. During cane crushing season, treated sugar condensate shall be used for distillery manufacturing process in order to reduce the fresh water requirement. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.</p> <p>6. The spent wash from molasses-based distillery shall be concentrated in MEE and concentrated spent wash shall be incinerated in the incineration boiler. Spent Wash/stillage from grain based distillery shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. Other lean effluents Spent lees, MEE Condensates and utility effluents shall be treated in the condensate polishing unit (CPU) comprising of three stage RO. No wastewater or treated water from integrated unit of sugar mill and distillery shall be discharged outside the premises and Zero Liquid Discharge shall be maintained for all the units namely sugar, Distillery and Cogen Power Plant. STP shall be installed to treat sewage generated from factory premises.</p> <p>7. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be conducted on monthly basis and report submitted to SPCB and RO, MOEFCC. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and Total Dissolve Solids shall be monitored and report submitted to the Ministry's Regional Office.</p> <p>8. ESP as APCE &amp; stack height of 90 m shall be installed with 60 TPH Slop/Bagasse fired Boiler inside plant premises with to control the particulate and gaseous emissions as per CPCB guidelines. Existing 60 TPH Slop/bagasse fired boiler with ESP as APCE &amp; 90 m stack height and a new Proposed 55 TPH slop/Bagasse fired boiler with ESP as APCE &amp; 80 m stack height will be used for controlling the particulate matter emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. Coal shall not be used as fuel .At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.</p> <p>9. Boiler ash (28 TPD) generated during bagasse-based operation &amp; ash (132 TPD) generated during Conc. Slop based operation is rich in Potash and supplied to Potash Granulation plant and will also be supplied to nearby farmers in covered vehicles only to use as a fertilizer. PP shall</p>

S. No	EC Conditions
	<p>use Bagasse as fuel for the proposed boiler. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.</p> <p>10. CO<sub>2</sub> (507 TPD) generated during the fermentation process is being/will be collected and sold to authorized vendors as per local demand.</p> <p>11. PP shall allocate at least Rs. 0.5 Crore/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers &amp; employees shall be provided with required safety kits/mask for personal protection.</p> <p>12. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.</p> <p>13. The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained. Location of ethanol storage tanks shall be placed in such a way that in the event of any fire, accident, explosion or any unforeseen conditions the impact of such event should not go beyond the boundary of the plant i.e. the risk should be tolerable (acceptable) at the boundary.</p> <p>14. Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic &amp; evaporation salt shall be disposed of to the TSDF.</p> <p>15. The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.</p> <p>16. The green belt of at least 5-10 m width shall be developed in nearly 8.02 hectares i.e., 33 % of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Saplings 4-6 feet high shall be planted. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. As committed, greenbelt development shall be completed by December, 2023 (Annexure 5).</p> <p>17. PP proposed to allocate Rs. 6.69 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan (Annexure 4). Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.</p> <p>18. 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. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.</p> <p>19. Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and</p>



S. No	EC Conditions
	<p>other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.</p> <p>20. Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.</p> <p>21. A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/ Director/CEO as per company hierarchy.</p> <p>22. PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12<sup>th</sup> August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.</p>

**Standard EC Conditions for (Distilleries)**

**1 General Conditions**

S. No	EC Conditions
1.1	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
1.2	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
1.3	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
1.4	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental

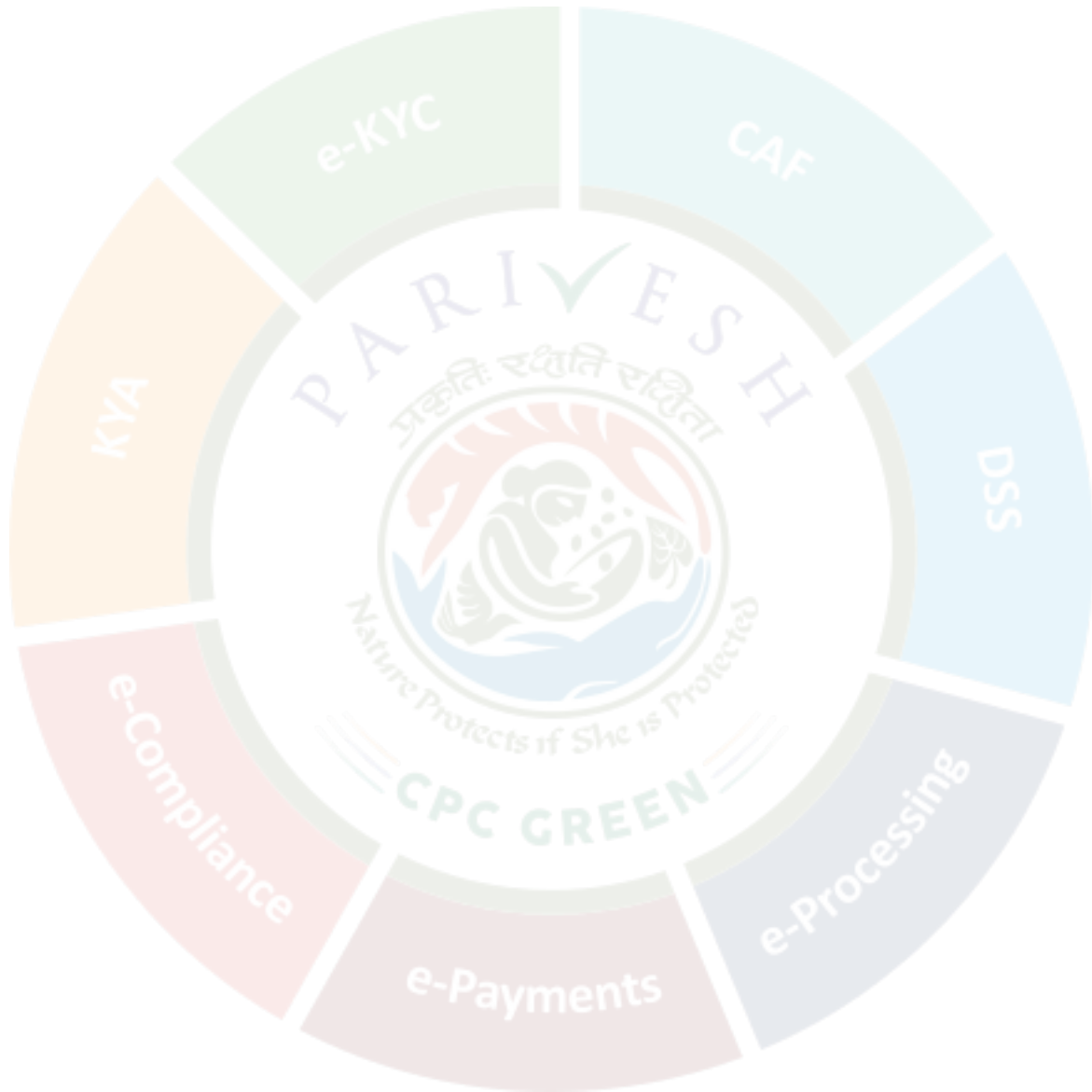
S. No	EC Conditions
	measures including community welfare measures in the project area for the overall improvement of the environment.
1.5	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
1.6	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
1.7	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
1.8	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.
1.9	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <a href="https://parivesh.nic.in/">https://parivesh.nic.in/</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
1.10	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
1.11	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

## Annexure 2

### Details of Products & By-products

Name of the product /By-product	Product / By-product	Existing	Proposed	Total	Unit	Mode of Transport / Transmission
Rectified Spirit/Ethanol	Rectified	200	0	200	Kilo Litre per Day	Road

Name of the product /By-product	Product / By-product	Existing	Proposed	Total	Unit	Mode of Transport / Transmission
	Spirit/Ethanol				(KLD)	
Ethanol only	Ethanol only	0	430	430	Kilo Litre per Day (KLD)	Road
Power	Power	3	9	12	Mega Watt (MW)	cables
Carbon dioxide	Carbon dioxide	161	346	507	TPD	Road
DDGS	DDGS	0	296	296	TPD	Road



**Annexure 3****Capital cost and recurring cost of EMP are given below:**

S. No.	Description		Capital Cost (Crores)	Recurring Cost/annum (Crores)
1.	Air Pollution management	Boiler stack + ESP + Online Monitoring System	15.5	1.5
2.	Effluent Treatment Facilities	Spent wash treatment facilities, ZLD System, Condensate polishing unit, ETP and STP	29.0	2.9
3.	Fugitive Emission Management	Internal Road, Bagasse & Grain Handling System	4.0	0.4
4.	Environment monitoring	Lab instrument, Online monitoring System, Third party monitoring, audit	3.0	0.2
5.	Solid waste management	Ash handling & management	9.7	0.9
		Others		
6.	Greenbelt & plantation development	Plantation for greenbelt	0.8	0.10
7.	Rain water harvesting	Required infrastructure	3.0	-
	<b>Total</b>		<b>65.0</b>	<b>6.0</b>

**Annexure 4****Details of CER with proposed activities and budgetary allocation:**

S. No.	PROPOSED ACTIVITIES	TOTAL BUDGET ALLOCATED (RS. IN LAKHS)
1	<b>Up gradation of School infrastructure &amp; Educational facilities-</b> Provide Interactive smart class equipments/gadgets/solar panels like desktop computers, projectors, Interactive White Boards and distributing study materials, school bags, sports equipments etc. to students, Seating Benches, installation of potable water facilities, construction of sanitized toilets etc.	226
2	<b>Social Infrastructure Development-</b> Installation of Solar Street Light, Solar Lanterns, Village Pond & RWH pond Infrastructure Development, etc.	120

3	<b>Skill development for youth-</b> Organizing Training programmes for youth/residents in Skill Development centre in collaboration with District/State government	80
3	<b>Up gradation of Healthcare facilities-</b> Provision of oxygen cylinders, ambulance, Health Check- up camps, medical instruments etc.	190
4	<b>Plantation</b> –Plantation/ Avenue plantation along roadside, tree plantation in nearby schools/colleges/vacant land/Panchayat bhavan, etc.	53
<b>Total</b>		669

## Annexure 5

### GREENBELT DEVELOPMENT PLAN

- After expansion, the company will develop 33% of total project area, i.e., 8.02 ha as greenbelt & plantation (density of 2500 indigenous trees/ha) with total trees of 20,050.
- At present, 12030 trees have already been planted & additional 8,020 trees as Gap filling for densification will be done.
- A 3-tier dense plantation will be done by the company towards plant boundary at all places which will be completed within 1 year (December, 2023).
- Only native/indigenous species will be planted in consultation with local DFO & sanctioned forest working plan of the region.

### **ACTION PLAN FOR GREENBELT DEVELOPMENT**

Description	Existing capacity	Additional Proposed	Total After Expansion
Total Area of Greenbelt & Plantation	19.81 Acres (8.02 ha) ~33% of Existing Plant area	-	19.81 Acres (8.02 ha) ~33% of Existing Plant area
No. of Plants	12030	8020 (Gap filling for Densification)	20050
Percentage	~33% of the total Plant area	-	~33% of the total Plant area
Tree per hectare	1500	-	2500

- Following tentative local/native wild species will be planted inside the plant premises:

S. No.	Trees proposed for plantation	Number of trees proposed
1.	<i>Azadirachta indica</i> (Neem)	356
2.	<i>Chitwan (Alstonia scholaris)</i>	342
3.	<i>Saraca asoca</i> (Ashok)	213
4.	<i>Syzygium cumini</i> (Jamun)	153
5.	<i>Psidium guajava</i> (Guava)	231
6.	sagwan ( <i>Tectona grandis</i> )	245
7.	Mango ( <i>Mangifera indica</i> )	107

8.	Shisham ( <i>Dalbergia sissoo</i> )	235
9.	Tamarind ( <i>Tamarindus indica</i> )	286
10.	Silver oak ( <i>Grevillea robusta</i> )	112
11.	Mahua ( <i>Madhuca longifolia</i> )	264
12.	palash ( <i>Butea monosperma</i> )	375
13.	Bel ( <i>Aegle marmelos</i> )	364
14.	peepal ( <i>Ficus religiosa</i> )	264
15.	Banyan tree ( <i>Ficus benghalensis</i> )	163
16.	Arjun ( <i>Terminalia arjuna</i> )	356
17.	mulberry ( <i>Morus alba</i> )	245
18.	Chakresia ( <i>Chukrasia tabularis</i> )	246
19.	chinaberry ( <i>Melia azedarach</i> )	246
20.	<i>Acacia catechu</i> (Khair)	458
21.	<i>Emblica officinalis</i> (Amla)	357
22.	<i>Cassia fistula</i> (Amaltas)	334
23.	Moringa ( <i>Moringa oleifera</i> )	267
24.	Pakar ( <i>Ficus lacor</i> )	245
25.	tendu ( <i>Diospyros tomentosa</i> )	246
26.	Toon ( <i>Toona ciliata</i> )	296
27.	Kadam ( <i>Neolamarckia cadamba</i> )	275
28.	Kachnar ( <i>Bauhinia variegata</i> )	357
29.	Kaner ( <i>Cascabela thevetia</i> )	256
<b>TOTAL</b>		<b>8040*</b>

\*The company may vary the individual no. of species as per availability

