



File No. J-11011/159/2014-IA- II (I)
Government of India
Ministry of Environment, Forest & Climate Change
Impact Assessment Division

Indira Paryavaran Bhawan,
Jal Wing, 3rd Floor, Aliganj,
Jor Bagh Road, New Delhi-110 003

Dated: 19th May, 2021

To,

M/s Shri Balaji Sugars and Chemicals Private Limited,
Yaragal Village in Muddebihal Taluk,
Vijaypur District, Karnataka

Sub: Proposed expansion of molasses-based distillery of 60 KPLD to 180 KLPD with multi feed stock (C Heavy Molasses/B-Heavy Molasses/Cane Juice syrup) by M/s Shri Balaji Sugars and Chemicals Private Limited located at Survey Nos. 32/1, 32/5, 34/4, 34/5, 35/1, 35/2 & 35/3 of Yaragal Village in Muddebihal Taluk, Vijaypur District, Karnataka - Consideration of Environment Clearance regarding.

Sir,

This has reference to your online proposal No. IA/KA/IND2/198406/2021, dated 16th February, 2021 for environmental clearance to the above mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for Proposed expansion of molasses-based distillery of 60 KPLD to 180 KLPD with multi feed stock (C Heavy Molasses/B-Heavy Molasses/Cane Juice syrup) by M/s Shri Balaji Sugars and Chemicals Private Limited located at Survey Nos. 32/1, 32/5, 34/4, 34/5, 35/1, 35/2 & 35/3 of Yaragal Village in Muddebihal Taluk, Vijaypur District, Karnataka.

3. All Distillery projects are listed at S. No. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC). As per MoEF&CC vide Notification no. S.O. 345(E) dated 17th January 2019 & extension of notification S.O. 750(E) dated 17th February 2020 the proposal is to be appraised as B2 category.

2. Public Hearing for the proposed project is not conducted as the proposal is appraised as per category B2 projects in line with Notification issued by MoEF&CC vide. S. O. 345(E) dated 17th January 2019. There is no litigation pending against the proposal.

3. Ministry had issued EC earlier vide letter No. F. No. J-11011/159/2014-IA. II dated 18.04.2017 to the existing project for setting up of 60 KLD molasses-

based distillery unit along with 3 MW co-gen power plant in favour of M/s. Shri Balaji Sugars and Chemicals Private Limited.

4. The details of products and capacity are as under: -

Sl. No.	Products manufactured	Existing production	Proposed expansion	Scenario after expansion
1	RS/ENA/Ethanol	60 KLPD RS / ENA / Ethanol <u>Raw material:</u> C-Heavy molasses / B-Heavy molasses	120 KLPD Ethanol	Expansion of 60 KLPD distillery to manufacture 180 KLPD with following combinations: A. 60 KLPD Ethanol from existing plant + 120 KLPD Ethanol from new plant OR B. 60 KLPD RS/ENA + 120 KLPD Ethanol <u>Raw material:</u> C - Heavy molasses / B - Heavy molasses / Cane juice syrup
2	Captive power attached to distillery	2.25 MW	0.75 MW	<ul style="list-style-type: none"> • EC has been obtained for 3 MW captive power but only 2.25 MW capacity has been installed. • The same will be upgraded to 3 MW capacity during expansion. • Ultimate capacity of Captive power plant will be 3 MW

5. Existing land area is 40500 m²; additional 67955 m² land will be used for proposed expansion. Industry has already developed greenbelt in an area of 33 % i.e., 35790 m² out of total area of the project. The estimated project cost is Rs. 248 Crores including existing investment Rs. 96 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 7.73 Crores and the recurring cost (operation and maintenance) will be Rs. 2.8 Crores per annum. Total employment will be 90 persons as direct & 40 persons indirect after expansion. As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environment Responsibility (CER), and as per the action plan proposed for socio-economic shall support for infrastructure development in nearby villages & schools, greenbelt development in villages, healthcare facilities and infrastructure development of hospitals, skill development programs within five years as proposed with a budgetary provision of Rs. 2.10 Crores.

31-2

6. There are no national parks, wild life sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wild life Corridors etc. within 10 km distance from the project site. River Krishna is flowing at a distance of 3.2 km in South East direction.

7. Baseline ambient air quality monitoring is not carried out since the project is to be appraised as B2 category as per the Notification of MoEF& CC no. 345 (E) dated 17th January 2019. However, ambient air quality monitoring is carried out by the industry as per the conditions of the Consent issued by KSPCB. The monitoring data during November 2020 indicate PM₁₀(87 µg/m³), PM_{2.5} (29 µg/m³), SO₂ (4.9 µg/m³) and NO_x (18.87 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 5.67 µg/m³, 2.31 µg/m³ and 1.87 µg/m³ with respect to PM₁₀, SO₂ and NO_x respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

8. Total water requirement in the distillery unit is in the Table below and fresh water will be met from Nala joining to Krishna River.

(a) Water requirement for the process and utility:							
Scenario	Combination of production in 180 KLPD Distillery	Fresh Water		Recycled Water in KLD	Total Water Requirement in KLD		
		in KLD	kL/kL of Ethanol				
1	60 KLPD C Heavy Molasses + 120 KLPD B Heavy Molasses	630*	3.5	1138	1768		
2	60 KLPD C Heavy Molasses + 120 KLPD Cane Juice Syrup	630	3.5	1392	2022		
3	60 KLPD B Heavy Molasses + 120 KLPD B Heavy Molasses	630*	3.5	963	1593		
4	60 KLPD B Heavy Molasses + 120 KLPD Cane Juice Syrup	630	3.5	1217	1847		
5	60 KLPD Cane Juice Syrup + 120 KLPD Cane Juice syrup	630	3.5	1368	1998		
(b) Domestic Use: 25 KLD							
(c) Gardening: 40 KLD							

*When B/C heavy molasses is used as feed stock, freshwater will not be used in process and only treated recycled water from CPU will be used. The requirement of freshwater will be only in utilities. Whereas, when Cane juice syrup will be

used as feedstock, freshwater will be used in both process (for dilution) and utilities.

Effluent of 1255 m³/day spent wash & 1714 m³/day other effluents (condensate, spent lees, cooling tower bleed, boiler blowdown, lab washings & DM reject) will be generated. Spent wash is concentrated in MEE and concentrated spent wash of 238 KLD will be used as fuel for incineration Boiler with bagasse/coal as supporting fuel. Condensate and other utility effluents are treated in CPU with 2 stage RO process and will be used in process, cooling tower makeup & washing. Sewage of 21.5 KLD will be treated in septic tank followed by soak pits. The plant will be based on Zero Liquid discharge system. Details of effluent generation at different combinations of feedstock used is in Table below.

Combination of production	Wastewater Generated in KLD								Total effluent (in KLD)
	Raw Spent wash	Conc. spent wash	Spent lees	DM reject	Boiler blowdown	Cooling tower bleed	Lab Wash	Condensate from MEE	
60 KLPD C Heavy Molasses + 120 KLPD B Heavy Molasses	1139	238	255	22	23	94	54	890	2715
60 KLPD C Heavy Molasses + 120 KLPD Cane Juice Syrup	1255	238	223	19	40	87	16	1091	2969
60 KLPD B Heavy Molasses + 120 KLPD B Heavy Molasses	996	203	258	21	21	56	20	692	2267
60 KLPD B Heavy Molasses + 120 KLPD Cane Juice Syrup	1112	203	226	18	37	89	16	893	2594

60 KLPD Cane Juice Syrup + 120 KLPD Cane Juice syrup	1170	177	210	17	47	105	12	993	2731
---	------	-----	-----	----	----	-----	----	-----	------

9. Power requirement after expansion will be 2.69 MW including existing 0.9 MW and will be met from Captive power plant. Existing unit has no DG sets and no DG set is proposed in expansion proposal. Existing unit has 25 TPH incinerator boiler. Concentrated spent wash supported with Bagasse / Coal is used as fuel. The same will be upgraded to 30 TPH. Existing ESP and a stack of height of 70 m will be sufficient for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the upgraded boiler.

10. Details of Process emissions generation and its management:

CO₂ from fermentation will be collected. CO₂ recovery plant will be established.

11. Details of Solid waste/Hazardous waste generation and its management:

SI. No.	Details of the solid waste	Quantity in TPM	Mode of Collection	Mode of Disposal
1	Yeast Sludge	650-700	Mechanically removed and dried and transported	Provided to farmers to use as Bio manure
2	Fly Ash (ESP)	450-500	Collected from ash silo and transported by tractors & trucks	Rich in Bio- potash and used as farm land manure
3	Bottom Ash	550-600		

12. Certified compliance report submitted by RO, MoEF&CC. Bangalore RO, MoEF&CC has issued certified compliance report for the project vide File No. EP/12.1/03/2017-18/KAR/1185 dated 04.02.2021. Status of compliance is 'Satisfactory'.

13. The proposal was considered by the EAC in its 31st meeting held on 03rd March, 2021 in the Ministry, wherein the project proponent and their consultant M/s. Samrakshan, presented the EIA/EMP report. The Committee recommended the project for grant of environmental clearance.

14. During deliberations, EAC desired that PP shall reduce fresh water consumption to 3.5 KL/KL of alcohol produced and commitment to dispose Carbon dioxide in proper manner. PP has submitted the revised water balance and committed for the same.

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

16. The Committee noted that the compliance report to be satisfactory, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has also 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.

17. 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.

18. 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 to the project for **Proposed expansion of molasses-based distillery of 60 KPLD to 180 KLPD with multi feed stock (C Heavy Molasses/B-Heavy Molasses/Cane Juice syrup) by M/s Shri Balaji Sugars and Chemicals Private Limited located at Survey Nos. 32/1, 32/5, 34/4, 34/5, 35/1, 35/2 & 35/3 of Yaragal Village in Muddebihal Taluk, Vijaypur District, Karnataka**, under the provisions of the EIA Notification, 2006, and the amendments therein, subject to compliance of the terms and conditions as under:-

A. Specific Condition:

- (i). The capacity addition under the instant EC i.e. 120 KLPD, shall be utilized fully for contributing to Ethanol Blending Programme (EBP).

32/2

- (ii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iii). Total fresh water requirement for the proposed project will be 695 KLPD which will be met from Nala joining to Krishna River. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises.
- (iv). The spent wash/other concentrates shall be incinerated. Ash/manure shall be packed in 25 kg bags and transported via covered trolleys.
- (v). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vi). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vii). 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.
- (viii). 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.
- (ix). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (x). 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.
- (xi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

- (xii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall be completed within time as proposed.
- (xiii). 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.
- (xiv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xv). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB 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.
- (xvi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

B. General Condition:

- (i) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- (ii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- (iii) 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

81-2

prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

- (iv) 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 measures including community welfare measures in the project area for the overall improvement of the environment.
- (v) 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.
- (vi) 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.
- (vii) 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.
- (viii) 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.
- (ix) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <https://parivesh.nic.in/>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.

3-2

- (x) 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.
- (xi) 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.

19. 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.

20. 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.

21. 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.

22. 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.

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


(Ashok Kr. Pateshwary)
Director

Copy to: -

1. The Secretary, Department of Forest, Environment & Ecology, Government of Karnataka, Room No. 708, Gate 2, Multi Storey Building, Dr. Ambedkar Veedhi, Bangalore - 1
2. The Deputy DGF (C), MoEF&CC Regional Office (SZ), Kendriya Sadan, 4th Floor, E&F Wings, 17th Main Road, Koramangala II Block, Bangalore - 34
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex East Arjun Nagar, Delhi - 32
4. The Member Secretary, Karnataka State Pollution Control Board, Parisara Bhavan, #49, 4th & 5th Floor, Church Street, Bangalore -1
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi

6. The District Collector, District Vijaypur, Karnataka
7. Guard File/Monitoring File/Parivesh portal/Record File

87204
19.05.2021

(Ashok Kr. Pateshwary)

Director

E-mail: ak.pateshwary@gov.in

Tel. No. 24695290