F. No. IA-J-11011/154/2019-IA-II(I) Government of India Ministry of Environment, Forest and Climate Change (Impact Assessment Division)

Indira Paryavaran Bhawan Jorbagh Road, New Delhi - 110003

Dated: 6th August, 2021

To,

M/s. Godavari Biorefineries Ltd. Sakarwadi, Taluka Kopargaon, District Ahmednagar, Maharashtra

Email: kajaria@somaiya.com

Sub: Expansion of existing industry and addition of New Products of capacity from 6,715.00 MTPM to 20,090.94 MTPM, located at Gut No. 159-165,180/1, 180/2, 181/1, 181/2, 187/1, 187/2, 188, 189, 199, 158, 167-178, 511, 139/2, Sakarwadi, Taluka Kopargaon, District Ahmednagar, Maharashtra by M/s. Godavari Biorefineries Ltd.- Environmental Clearance regarding.

Sir,

This has reference to your proposal No. IA/MH/IND3/210653/2019 dated 4th July, 2021, submitting the EIA/EMP report and further letter dated 23.07.2021 on the above subject matter.

- 2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for expansion of existing industry and addition of New Products of capacity from 6,715.00 MTPM to 20,090.94 MTPM, located at Gut No. 159-165,180/1, 180/2, 181/1, 181/2, 187/1, 187/2, 188, 189, 199, 158, 167-178, 511, 139/2, Sakarwadi, Taluka Kopargaon, District Ahmednagar, Maharashtra by M/s. Godavari Biorefineries Ltd.
- 3. The project/activities are covered under Category 'A' of item 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the Expert Appraisal Committee (EAC) in the Ministry.
- 4. The details of products and capacity are as under:

S. No.	Products Details	Quantity [MT/M]		
		Existing	Proposed	Total
1.	Ethyl Acetate	3000.00	5700.00	8700.00
2.	Acetaldehyde	1500.00	1300.00	2800.00
3.	Croto Resin and Croto Di Urea	45.00	85.00	130.00
4.	Crotonaldehyde	500.00	500.00	1000.00
5.	1,3 Butylene Glycol	41.66	158.34	200.00
6.	Acetic Acid	598.85	0.00	598.85
7.	Dilute Acetic Acid	110.00	0.00	110.00
81)	Dilute Ethyl Acetate and other ester	0.00	30.00	30.00

S. No.	Products Details	the state of the s	antity [MT/N	
		Existing	Proposed	Total
9.	Acetaldol	0.00	425.00	425.00
10.	Paraldehyde	60.00	0.00	60.00
11.	Crotonic Anhydride	8.33	1.67	10.00
12.	Crotonitrile	8.33	1.67	10.00
13.	Dilute 1-3 Butylene Glycol	12.90	19.32	32.22
14.	Butanol	64.60	53.10	117.70
15.	2-Ethyl, 1, 3 Hexane Diol	33.33	0.00	33.33
16.	3-Methoxy Butanol	25.00	250.00	275.00
17.	Dilute 3 Methoxy Butanol	0.00	30.00	30.00
18.	3-Methoxy Butyl Acetate	0.00	340.00	340.00
19.	3-Methyl 3- Pentene -One (MPO)	333.33	166.70	500.00
20.	Sodium Sulphate	242.00	3.00	245.0Q
21.	Ketone Mixture	131.67	65.80	197.50
22.	Absolute Alcohol (Fuel Grade from RS/IS)	0.00	2000.00	2000.00
23.	Acetaldehyde Oxime	0.00	175.00	175.00
24.	Ammonium Sulphate	0.00	139.70	139.70
25.	Acetaldehyde Diethyl Acetal	0.00	250.00	250.00
26.	Ethyl Vinyl Ether	0.00	100.00	100.00
27.	Acetonitrile	0.00	425.00	425.00
28.	Diethyl Oxalate	0.00	175.00	175.00
29.	Gbamber	0.00	100.00	100.00
30.		0.00	500.00	500.00
31.	Acetals (534-15-6,109-87-5,462-95-3,871-22-7,4285-59-0,13002-09-0,10602-34-3,4461-87-4,7148-78-9,5870-82-6,6607-66-5,3390-12-3,3658-95-5,94089-21-1)	0.00	15.00	15.00
32.		0.00	20.00	20.00
33.		0.00	15.00	15.00
34.	19780-25-7, 14371-10-9, 142-83-6, 101-86-0, 645-62-5,123-05-7, 67801-65-4,27939-60-2,1742-14-9,530-45-0,6728-26-3)	0.00	200.00	200.00
35		0.00	15.00	15.00
36		0.00	20.00	20.00
37		0.00	15.00	15.00
38		0.00	12.00	12.00

S.	Products Details	Quantity [MT/M]				
No.		Existing	Proposed	Total		
39.	Nitriles (107-12-0, 109-74-0, 78-82-0, 110-59-8)	0.00	20.00	20.00		
40.	Ethers (109-53-5, 107-25-5, 111-34-2, 60-29-7)	0.00	15.00	15.00		
41.	Ketene (463-51-4)	0.00	15.00	15.00		
42.	Other Salts (532-32-1,7647-14-5,7783-20-2 & 7757-82-6)	0.00	19.64	19.64		
	TOTAL	6,715.00	13,375.94	20,090.94		
Captive power generation						
1	Turbine (Captive power generation)	2.3MWH	4.8MWH	7.1 MW H		

- 5. Project Proponent reported that land area available for the project is 13, 92,123 m². No additional land will be used for proposed expansion. Industry has already developed Greenbelt in an area 33 % i.e. 4, 59,839.00 m² out of total area of the project. The estimated project cost is Rs. 366.44 Crores including existing investment of Rs.166.44 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 28.033 Crores and the Recurring cost (operation and maintenance) will be about Rs.6.4 Crores per annum. Total Employment will be 613 persons as direct and 180 persons indirect after expansion. Industry proposes to allocate Rs.1.5 Crores towards CER.
- 6. It is reported that there are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body Godavari River is flowing at a distance of 1.0km in W direction.
- 7. Ambient air quality monitoring was carried out at 8 locations during March 2018 to May 2018 and the baseline data indicates the ranges of concentrations as: PM₁₀ (61.80 μg/m³ 79.60μg/m³), PM_{2.5} (32.42μg/m³-51.30μg/m³), SO₂ (11.75μg/m³-14.71μg/m³) and NO₂ (17.31μg/m³- 24.70μg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 82.4μg/m³, 22.75μg/m³ and 32.71μg/m³ with respect to PM10, Sox and NOx. Further, the Project Proponent has submitted one month more baseline data of January 2021 and compared the data with 2018. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). The Committee deliberated the baseline data and found in order.
 - **8.** It is noted that the water requirement is 5,783 m³/day of which fresh water requirement of 2,691m3/day will be met from River through Canal and Ground Water through open well. Effluent of 1,082 m³/day quantity will be treated through ETP of 1,250CMD capacity [Existing 600CMD + Proposed 650CMD]. The plant will be based on Zero Liquid discharge system.
- 9. Power requirement after expansion will be 14,000kVA [11.2MW/H] including existing kVA and will be met from MSEDCL State power distribution corporation limited. Existing unit has 2 DG sets of 1000 kVA and 590 kVA capacity, additionally 3 DG sets of 1000x3 Nos. DG sets are used as standby during power failure. Stack (height of 9m, 9m and 6m) will be provided as per CPCB norms to the proposed DG sets. Existing unit has 18TPH [2 Nos.] and 12TPH Coal fired boiler. Additionally, 45TPH and 24TPH [2 Nos.] Coal fired boiler will be installed. Thermic Fluid Heater of 10Lakh Kcal/Hr. and 2

Lakh Kcal/Hr. Hydrogen Generator of 5200 x 3 cum/day Nitrogen Generator and 1000 cum/day with HSD fired will also be installed. [Existing 3 Boilers shall be replaced with Boiler of 45TPH]. ESP and Bag filter with a stack of height of 30m, 30m, 45m, 50m, 15m and 10m respectively will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers.

- 10. Emission of Aldehyde Content, CO₂/O₂ from Acetaldehyde Plant and Acid Mist, CO₂/O₂ from Acetic Acid Plant, for which industry has provided Aldehyde Scrubbers [1 for each plant] with stack height of 12.9m and 8.25m. Details of solid waste/hazardous waste disposal are as per the plan provided in the EIA/EMP report and as deliberated in the EAC.
- 11. Standard ToR has been issued by the Ministry vide letter dated 13th May, 2019. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 14th October, 2020 which was presided over by the Additional District Magistrate. The main issues raised during the public hearing are related to ZLD details, NGT court case status, Water Source, Employment generation, ground water quality etc. Inspection report dated 24.12.2020 submitted by the PP which was deliberated by the EAC.
- 12. Unit has obtained NOC from Department of Environment, State of Maharashtra vide letter No. ENV(NOC)1091/1485 / CR-272/D-I, dated 25th January 1993. The PP reported that since this is the existing Unit prior to 2006, EC was not required under the provisions of the EIA Notification, 2006. The Unit is being operated with statutory clearance and valid CTO under Air/Water Act. PP reported that a Case No-68/2014 in Hon'ble NGT (WZ) Pune, related to Distillery effluent pollution. Distillery plant is closed since Feb 2013 and Distillery license is also surrendered by the Industry. Case is disposed on 19th May 2015. Now execution work is in progress as per Hon'ble NGT Order.
- 13. The proposal was considered by the Expert Appraisal Committee (Industry-3 Sector) in its meeting held on 22-23 July, 2021 in the Ministry through video conferencing, wherein the project proponent and their accredited consultant M/s. Building Environment India Pvt. Ltd. presented the EIA/EMP report as per the ToR. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed at http://parivesh.nic.in.

The EAC, constituted under the provision of the EIA Notification, 2006 comprising Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports 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 an 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 reports. 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.

The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within NAAQ standards

additional baseline data for the year 2020 and 2021 submitted by the PP was also found satisfactory. The Committee suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio. Accordingly, revised allocation for green area development in budgeted EMP amount Recurring cost of Rs. 386.5 lakhs/annum for proposed EMP & totaling to Recurring cost Rs. 687.5 Lakhs/annum for entire project submitted by the PP. The Committee also deliberated the court case status and the implementation of directions regarding bio-remediation tasks raised during the Public Hearing and found the reply to be satisfactory.

The Committee noted that since the Unit is in existence prior to 2006, EC was not required under the provisions of the EIA Notification, 2006. The MPCB has inspected the Unit on 24.12.2020. The Committee deliberated the compliance status of existing Unit and found in order. The Committee noted that the project proponent has submitted an undertaking regarding greenbelt development and other mitigation measures. The Committee found the additional information to be satisfactory.

The EAC deliberated on the proposal with 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 found the proposal in order and recommended for grant of environmental clearance.

- 14. The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent 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.
- 15. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate change hereby accords Environmental clearance to the project for expansion of existing industry and addition of New Products of capacity from 6,715.00 MTPM to 20,090.94 MTPM, located at Gut No. 159-165,180/1, 180/2, 181/1, 181/2, 187/1, 187/2, 188, 189, 199, 158, 167-178, 511, 139/2, Sakarwadi, Taluka Kopargaon, District Ahmednagar, Maharashtra by M/s. Godavari Biorefineries Ltd., under the provisions of the EIA Notification, 2006, subject to the compliance of terms and conditions as under:-

A. Specific Conditions:

- (i). 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.
- (ii). Implementation of the directions of Hon'ble NGT w.r.t. Bio- remediation plan of soil and water [Ground & Surface] contaminated by the earlier Distillery Unit on

Ee for M/s. Godavari Biorefineries Ltd.

- time bound manner. The implementation report shall be submitted to IRO, MoEFCC on six monthly-basis.
- (iii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (iv). An 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.
- (v). As already committed by the project proponent, Zero Liquid Discharge (ZLD) shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.
- (vi). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.
- (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). Total fresh water requirement, sourced from River through Canal and Ground Water through open well, shall not exceed 2,691m³/day. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (ix). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (x). 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 ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (if applicable).
- (xi). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space provided with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valves to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xii). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment

- from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.
- (xiii). 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.
- (xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. 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. Trees have to be planted with spacing of 2m x 2m and the number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.
- (xv). The activities and the action plan proposed by the project proponent to address the socio-economic and public hearing issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made during public hearing shall be satisfactorily implemented.
- (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 Conditions: The grant of environmental clearance is further subject to compliance of other general conditions as under:-
- (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.
- The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
- (iii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- (iv) 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).
- (v) The company shall undertake all relevant measures for improving the socioeconomic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake ecodevelopmental measures including community welfare measures in the project area for the overall improvement of the environment.
- (vi) 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.
- (vii) 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.
- (viii) 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 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.
- (ix) 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.
- 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.
- (xi) 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.
- (xii) 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.



- **16.** 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.
- 17. Concealing factual data or submission of false/fabricated and comply with any of the conditions mentioned above may result withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
- **18.** 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.
- 19. The above conditions shall be enforced, *inter-alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- This issues with approval of the competent authority.

(Dr. R. B. Lal)

Scientist 'E'/Additional Director

Tele-fax: 011-24695362

(Dr. R. B. LAL)
ईक्षानिक 'ई'/Scientist 'E'
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
Min.of Environment, Forest and Climate Change
भारत संस्कार, नई दिल्ली
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Copy to:

- The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building Civil Lines, Nagpur-440001
- 2. The Secretary, Revenue & Forest Department, Government of Maharashtra, 4th Floor, Mantralaya, Mumbai- 400032
- The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi - 32
- The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. PVR Cinema, Sion Circle, Mumbai-400 022
- The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
- 6. The District Collector, District Ahmednagar
- 7. Guard File/Monitoring File/Website/Record File/Parivesh portal

(Dr. R. B. Lal)

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