

**GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE  
(IA DIVISION-INDUSTRY-2 SECTOR)**

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**Dated: 19.04.2021**

**MINUTES OF THE 33<sup>rd</sup> MEETING OF THE EXPERT APPRAISAL  
COMMITTEE**

**(INDUSTRY-2 SECTOR PROJECTS)**

**HELD ON 07-08<sup>th</sup> April, 2021**

**Venue: Ministry of Environment, Forest and Climate Change, Indira ParyavaranBhawan, JorBagh Road, New Delhi-110003  
through Video Conferencing (VC)**

**(i) Opening Remarks by the Chairman:** The Chairman made hearty welcome to the Committee members and appreciated the efforts of the Committee. After opening remarks, the Chairman opened the EAC meeting for further deliberations.

**(ii) Confirmation of minutes:** The EAC, having taken note that final minutes were issued after incorporating comments informed by the EAC members on the minutes of its 32<sup>nd</sup> Meeting of the EAC (Industry-2) held during 18<sup>th</sup> March, 2021 conducted through Video Conferencing (VC), confirmed the same.

After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

Details of the proposals considered during the meeting **conducted through Video Conferencing (VC)**, deliberations made and the recommendations of the Committee are explained in the respective agenda items as under: -

**07<sup>th</sup> April, 2021 (Wednesday)**

**Agenda No. 33.1**

**Expansion of Molasses based distillery from 100 KLPD to 215 KLPD by M/s. Daurala Sugar Works Distillery Unit (A unit of DCM Shriram)**

**Ind.) located at Village Daurala, Tehsil Sardhana, District Meerut, Uttar Pradesh - Consideration of Environment Clearance reg.**

**[IA/UP/IND2/202485/1993, IA-J-11011/171/2020-IA-II(I)]**

The Project Proponent and the accredited Consultant J.M. EnviroNet Pvt. Ltd., made a detailed presentation on the salient features of the project.

The proposal is for environmental clearance to the project Expansion of Molasses based distillery from 100 KLPD to 215 KLPD by Daurala Sugar Works Distillery Unit (A unit of DCM Shriram Industries Limited) located at Village Daurala, Tehsil Sardhana, District Meerut, Uttar Pradesh.

All Molasses based distilleries >100 KLPD are listed at S.N. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification dated 14.9.2006 and as amended on 13.6.2019 under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

Standard ToR has been issued by Ministry of Environment, Forests & Climate Change vide letter No. - J-11011/171/2020-IA II(I) dated 7<sup>th</sup> August, 2020. Public Hearing for the expansion project has been conducted by Uttar Pradesh Pollution Control Board on 4<sup>th</sup> January, 2021 and chaired by Additional District Magistrate, Meerut. The main issues raised during public hearing were related to payment queries of sugarcane, employment opportunities, environmental impacts on air & water pollution, benefits to local people, development of nearby villages and plantation. No Litigation is pending against the proposal.

The existing 100 KLPD Molasses based distillery is operating on the basis of consents received from UPPCB. The 100 KLPD distillery started operating in 1993 before EIA notification came into existence. Thus no previous EC exists for the project.

**The details of products and capacity are as under:**

<b>Products</b>	<b>Existing Capacity</b>	<b>Additional Capacity</b>	<b>Total Capacity after expansion</b>
Ethanol (Absolute Alcohol)/ Rectified Spirit/ Extra Neutral Alcohol	100 KLPD	115 KLPD	215 KLPD
Power	4.2 MW	-	4.2 MW
By-product – CO <sub>2</sub>			

Existing land area is 13.397 ha (33.10 acres). No additional land will be required as proposed expansion will be done within the existing plant premises. Industry is already developing greenbelt in an area of 33% i.e. 4.43 hectares (11 acres) out of total area of the project and the same will

be maintained in future. The estimated project cost is Rs. 20 Crores for expansion project. Total capital cost earmarked towards environmental pollution control measures is Rs. 5 Crores and the Recurring cost (operation and maintenance) will be about Rs. 73.5 Lakhs per annum. No. of working days will be 350 days/annum. Total Employment during operation phase will be 115 persons (80 Regular and 35 contractual) after expansion. Industry proposes to allocate Rs. 40 Lakhs @ 2 % of total project cost towards Corporate Environment Responsibility.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the plant site. Water bodies in 10 km radius study area are 1 river – Kali Nadi East (3.5 km in East); 5 Tributaries- Daurala Tributary (Adjacent to plant site), Left Salawa Tributary (3.3 km in West), Anti Tributary (5.1 km in East), Dabthua Tributary (5.5 km in West), Right Salawa Tributary (8.5 km in NNW); 7 Drains/Nala/Feeder/Canal- Abu Nala (1.0 km in WSW), Chandsamand drain (3.2 km in NE), Gohana Feeder (4.0 km in North), Upper Ganga Canal (7.0 km WNW), Jatkari drain (7.2 km in NW), Kushawali Drain (8.5 km in NW), Khatauli drain (8.5 km in NNE) & some agricultural minors are also present within 10 km radius of plant site.

Ambient air quality monitoring was carried out at 8 locations during Winter Season (December, 2019 to February, 2020) and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (60.1 to 93.1 µg/m<sup>3</sup>), PM<sub>2.5</sub> (29.2 to 52.3 µg/m<sup>3</sup>), SO<sub>2</sub> (6.2 to 20.0 µg/m<sup>3</sup>) & NO<sub>2</sub> (12.9 to 38.6 µg/m<sup>3</sup>). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the expansion project would be 0.171 µg/m<sup>3</sup>, 0.06857 µg/m<sup>3</sup>, 2.057 µg/m<sup>3</sup>, 1.028 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

After expansion, total water requirement is 2241 m<sup>3</sup>/day of which fresh water requirement of 776 m<sup>3</sup>/day (Distillery operations: Fermentation-655 m<sup>3</sup>/day, Co-generation power plant (Incineration Boiler & Power Plant- 96 m<sup>3</sup>/day, Pumps and seals-15 m<sup>3</sup>/day & Domestic activities-10 m<sup>3</sup>/day) will be met from Ground water. After expansion, effluent of 1465 m<sup>3</sup>/day quantity will be treated through Effluent Treatment Plant (Based on Anaerobic, aerobic & filtration system) of capacity 1500 m<sup>3</sup>/day. The plant is being/will be based on Zero Liquid discharge system.

Total Power requirement after expansion will be 4.2 MW including existing power requirement of 2.85 MW and will be met from 4.2 MW co-generation power plant. There are no DG Sets within plant premises. Existing unit has 35 TPH Concentrated Spent Wash/Bagasse fired incineration boiler. No new boiler will be installed. ESP with a stack height of 75 m has been installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the boiler.

**Details of process emissions generation and its management:**

<b>Source</b>	<b>Emissions</b>	<b>Management</b>
Incineration Boiler	Particulate matter, SO <sub>2</sub> , NO <sub>x</sub>	<ul style="list-style-type: none"><li>• ESP as air pollution control equipment for existing boiler.</li><li>• Adequate stack height (75 m) has been provided.</li><li>• Necessary temperature profile is being/will be maintained.</li></ul>
Fermentation	Carbon dioxide	Carbon dioxide generated is being/ will be collected by utilizing CO <sub>2</sub> scrubbers and sold to authorized vendors.

**Details of Solid waste/Hazardous waste generation and its management:**

- Ash from the boiler would be sold to potash granules manufacturers or given to farmers to be used for soil amendment.
- Concentrated spent wash is being/will be burnt as fuel in incineration boiler.
- Sludge is being / will be dried and used as manure.
- Used oil & grease generated from plant machinery/gear boxes as hazardous waste are being / will be sold out to the CPCB authorized recyclers.

Certified CTO compliance report has been obtained by RO, UP Pollution Control Board dated 09.11.2020.

During deliberations, EAC desired additional information/commitments related to construction of rainwater harvesting structures within plant premises i.e. storage pond and utilize the collected rainwater in plant activities instead of recharging in ground due to contamination problems and provide no. of solar lights to be installed in nearby villages along with time frame. PP submitted the desired commitment/information in compliance of the above.1

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.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. 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.

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.

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance, subject to compliance of terms and conditions as under, and general terms of conditions at Annexure 3: -

- (i). Coal shall not be used as fuel in incineration boiler. The industry shall use only cleaner fuels like natural gas such as PNG/CNG, LPG, Bio gas, Propane, Butane etc.
- (ii). 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.
- (iii). 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.
- (iv). Total fresh water requirement for the proposed project will be 776 KLPD which will be met from ground water. 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. Ground water monitoring shall be done regularly and report is to be submitted to concerned authorities regularly.

- (v). The spent wash/other concentrates shall be incinerated.
- (vi). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). 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.
- (viii). 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.
- (ix). 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.
- (x). 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.
- (xi). 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.
- (xii). 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.
- (xiii). 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.

- (xiv). 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.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvi). 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.
- (xvii). 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.

### **Agenda No. 33.2**

**Expansion of 45 KLPD Molasses based Distillery to 105 KLPD Molasses / Sugarcane Juice based Distillery by M/s. Yedeshwari Agro Products Ltd. located at Gat No. 119, 120, Pavansoot Nagar, at Anandgaon (Sarni), Post. Jawalban, Tal.: Kaij, Dist.: Beed, Maharashtra - Consideration of Environment Clearance reg.**

**[IA/MH/IND2/202888/2017, J-11011/175/2015-IA II (I)]**

The Project Proponent and the Accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. made a detailed presentation on the salient features of the project.

The proposal is for grant of Environmental Clearance (EC) to the project Expansion of 45 KLPD Molasses based Distillery to 105 KLPD Molasses / Sugarcane Juice based Distillery by Yedeshwari Agro Products Ltd. (YAPL) located at gat No. 119 & 120, Pavansoot Nagar, At.: Anandgaon (Sarni), Post. Jawalban, Tal.: Kaij, Dist.: Beed, Maharashtra State.

All Molasses based distilleries >100 KLPD are listed at S.N. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification dated 14.9.2006 and as amended on 13.6.2019 under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

The Standard ToRs has been issued by Ministry vide letter No. No.J-11011/175/2015-IA II (I) dated 20<sup>th</sup> February, 2020 for Expansion of 45 KLPD Molasses based Distillery to 105 KLPD Molasses / Sugarcane Juice

based Distillery. Public hearing for expansion project was conducted on 11.02.2021 at Yedeshwari Agro Products Ltd. (YAPL), Gat No. 119, 120, at Pavansoot Nagar, Anandgaon (Sarni), Post. Jawalban, Tal. Kaij, Dist. Beed, Maharashtra and chaired by the District Collector, Beed. The main issues raised during public hearing were related to greenbelt development, manufacturing of products harmful to environment and disposal, pollution related to this expansion, source of raw material, benefits to local people & employment generation, by-product produced, method used for alcohol production, spent wash disposal, rainwater harvesting & skill development program for local youths shall be undertaken. It was informed that no litigation is pending against the proposal.

Ministry has issued EC earlier vide letter no.J-11011/175/2015-IA II (I) dated 13<sup>th</sup> September, 2017 to the existing 45 KLPD molasses based Distillery Unit in favor of Yedeshwari Agro Products Ltd. (YAPL).

**The details of products and capacity are as under:**

Industrial Unit	Product	Unit	Quantity		
			Existing	Expansion	Total
Distillery (45-105 KLPD)	RS/ Extra Neutral Alcohol (ENA)/ Ethanol	KLPM	1,350	1,800	3,150
	<b>By-products</b>				
	CO <sub>2</sub>	MT/M	1,020	1,410	2,430
	Fusel Oil	MT/M	2.7	6.0	8.7

Total plot land area is 1,87,200 M<sup>2</sup>. Existing built-up area 72,414.35 M<sup>2</sup>; additional built-up for distillery expansion is 2,000 M<sup>2</sup>. Industry has already developed Green Belt in an area of 31,824 M<sup>2</sup> (17% out of total plot area). Moreover, additional Green Belt area of 33,696 M<sup>2</sup> (18% out of total plot area) will be developed. After expansion of distillery, the total Green Belt area would be 65,520 M<sup>2</sup> which accounts for 35% of total plot area. The estimated project cost is Rs. 184.45 Crores including existing investment of Rs. 139.45 Crores. The distillery will be operated for 330 days. Total capital cost earmarked towards environmental pollution control measures under distillery is Rs. 35.25 Crores and the Recurring cost (operation and maintenance) will be about Rs. 2.98 Crores per annum. Total Employment will be 40 persons as direct & indirect after expansion project. Industry proposes to allocate Rs.150 Lakh @ of 3.3% towards Corporate Environmental Responsibility.

There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 Km Study Area. Manjara River is flowing at a distance of 8 Km from West to East direction.

Ambient air quality monitoring was carried out at 8 locations during Oct.- Nov.- Dec.- 2019 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (49.5–64.4 µg/M<sup>3</sup>), PM<sub>2.5</sub>(13.1 – 23.7µg/M<sup>3</sup>),SO<sub>2</sub> (14.2 – 22.5 µg/M<sup>3</sup>) and NO<sub>x</sub> (16.6 – 31.6 µg/M<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum



incremental GLCs would be 0.26 µg/M<sup>3</sup> for PM<sub>10</sub> (towards South-West side), 0.073 µg/m<sup>3</sup> for PM<sub>2.5</sub> (towards South-West side), 3.14 for SO<sub>2</sub> µg/m<sup>3</sup> (towards South-West side) and 0.651 µg/m<sup>3</sup> NO<sub>x</sub>(towards South-West side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement after expansion of Distillery project will be 1367 CMD. Out of which, 66 CMD will be fresh water taken from Manjara River, 861 CMD will be CPU treated effluent during molasses based operations, 285 CMD will be CPU treated effluent from Cane juice operations and 155 CMD will be harvested rainwater to be recycled. The effluent generated from 105 KLPD distillery would be in the form of raw spent wash to the tune of 840 M<sup>3</sup>/Day. Here, Raw Spent wash from existing 45 KLPD distillery @ 360 M<sup>3</sup>/Day shall be primarily treated in Bio-methanation plant followed by conc. in Multi Effect Evaporator (MEE) and remaining raw spent wash from additional 60 KLPD distillery @ 480 M<sup>3</sup>/Day shall be conc. in MEE. Total Concentrated Spent wash to the tune of 168 M<sup>3</sup>/Day (1.6 KL/KL of alcohol against norm of 8 KL/KL of alcohol) shall be incinerated in proposed 22 TPH incineration boiler.

Power requirement for distillery after expansion will be 1.4 MW will be procured from own co-gen plant. No DG set was installed under existing distillery unit. No additional DG set will be installed under expansion of project. Existing unit has 8 TPH Biogas/ Furnace Oil fired boiler. Additionally, 22 TPH Spent wash & Bagasse/Coal fired Incineration Boiler will be installed. ESP with a stack of height of 72 M installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm<sup>3</sup> for the boiler.

**Details of process emissions generation and its management:**

The CO<sub>2</sub> generation shall take place in fermenters of the distillery. CO<sub>2</sub> to the tune of 81 MT/Day shall be released from 105 KLPD distillery plant. CO<sub>2</sub> shall be compressed, bottled and supplied to manufacturers of beverages.

**Details of Solid waste/Hazardous waste generation and its management:**

No.	Industrial Unit	Type	Quantity (MT/M)		Disposal
			Existing	After Expansion	
1	Distillery	Yeast Sludge	300	540	Burnt in Incineration Boiler
		CPU Sludge	7.2	30	
		Boiler Ash(Coal / Bagasse +Sp.wash)	-	1020	Given to Brick / Cement Industry

## **Details of Hazardous waste**

No any hazardous waste will be generated from distillery unit.

Certified compliance report has been obtained on 22.12.2020 from RO, MoEFCC, Nagpur and visit was conducted on 25.02.2020. Action taken report for non- complied conditions observed by RO submitted on 02.04.2021.

After detailed deliberations, the committee sought following additional information for further consideration of the proposal:

- Action plan for greenbelt development constituting no. of species to be planted along with their names and proper time frame.
- Proper air pollution control equipment i.e. ESP shall be installed and details regarding the same.
- Parking area shall be paved and action plan to develop the same with time frame.
- Action plan for rainwater harvesting shall be submitted where ground water recharge shall not be done and instead of this, storage pond shall be constructed. Details regarding location and dimensions for storing rainwater and its proper utilization within plant activities shall be submitted.

***The proposal was accordingly DEFERRED for the needful.***

## **Agenda No. 33.3**

**Proposed Sponge Iron Kilns, Induction Furnaces, Rolling Mills, Captive Power Plant (AFBC + WHRB), Ferro Alloys Plant and Fly Ash Brick manufacturing and Grain based bio-ethanol 35000 KLA (100 KLD), Animal feed grade protein 28000 TPA, Bio-CNG 3000 TPA, CO<sub>2</sub>- 17500 TPA, Power (Coal based cogeneration) 3 MW Co-Generation by M/s. Kusum Smelters Private Limited located at Village-Dhamni, Tahsil-Patharia, District-Mungeli, Pincode - 495224 (Chhattisgarh) - Regarding Terms of References (ToR).**

**[IA/CG/IND2/198531/2021, IA-J-11011/64/2021-IA-II(I)]**

The project proponent and their consultant M/s. Anacon Laboratories Pvt. Ltd., Nagpur, made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

The proposal is for ToR to the project of the Greenfield project Proposed Sponge Iron Kilns, Induction Furnaces, Rolling Mills, Captive Power Plant (AFBC + WHRB), Ferro Alloys Plant and Fly Ash Brick manufacturing and Grain based bio-ethanol 35000 KLA (100 KLD), Animal feed grade protein 28000 TPA, Bio-CNG 3000 TPA, CO<sub>2</sub>- 17500 TPA, Power (Coal based

cogeneration) 3 MW Co- Generation by M/s. Kusum Smelters Private Limited located at Village-Dhamni, Tahsil-Patharia, District-Mungeli, Pincode - 495224 (Chhattisgarh).

The ToR proposal related with activities of Grain based bio-ethanol 35000 KLA (100 KLD) and 3 MW Co-Generation Power Plant is under consideration in Industry –II.

All Greenfield project involving Sponge Iron Kilns, Induction Furnaces, Rolling Mills, Captive Power Plant (AFBC + WHRB), Ferro Alloys Plant and Fly Ash Brick manufacturing and Grain Based Bio Ethanol Plant with Co-Generation and Bio CNG are listed at S.N. 3(a), 1(d) and 5(g) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

The project was considered with respect to Industry-I related activities in 23<sup>rd</sup> meeting of Reconstituted Expert Appraisal Committee (EAC) (Industry –I) held on 28<sup>th</sup> -30<sup>th</sup> September, 2020 and ToR was issued vide letter no. J-11011/197/2020IIA.II (I) dated 22/10/2020 and amendment in ToR was considered in 28<sup>th</sup> meeting of Reconstituted Expert Appraisal Committee (EAC) held on 18<sup>th</sup> – 20<sup>th</sup> January, 2021 and amended ToR was issued on 8<sup>th</sup> February 2021 in favour of M/s. Kusum Smelters Pvt Ltd. It was informed that no litigation is pending against the proposal.

**The details of products and capacity are as under:**

<b>Sr. No.</b>	<b>Process Plant</b>		<b>Finished Product</b>	<b>Annual Capacity</b>
<b>1.</b>	Grain Based Bio Distillery	Main Product	Bio Ethanol :	100 KLD or 35000 KLA
<b>2.</b>	Grain Based Bio Distillery	By- Product	Animal Feed Grade Protein DDG	28,000 MT per annum
<b>3.</b>	Effluent Treatment Anaerobic Digesters	By-Product	Bio-CNG	3,000 MT per annum
<b>4.</b>	CO <sub>2</sub> Recovery Plant	By- Product	CO <sub>2</sub> (Carbon Di-oxide)	17,500 MT per annum
<b>5.</b>	Coal Based Co generation Plant	Essential Utility	Co-Generation based Power Plant	3 MW

This is a Greenfield project and proposed land area is 186900 m<sup>2</sup> (106900 m<sup>2</sup> Steel division + 80000 m<sup>2</sup> Bio-Ethanol division). Industry will develop greenbelt in an area of 33 % i.e., 61700 m<sup>2</sup> out of total area of the project.

The estimated project cost is Rs. 116.12 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 350 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 100 lakhs per annum. Total Employment will be 105 persons as direct & 2000 persons indirect.

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 Maniyari Nadi is flowing at a distance of 1 km in E direction.

Total water requirement is 1000 m<sup>3</sup>/day which will be met from surface water (Maniyari River). Effluent of 130 m<sup>3</sup>/day quantity will be treated through ETP. The plant will be based on Zero Liquid discharge system.

Power requirement will be 3 MW and will be met from Co gen plant of 3 MW. Proposed 2x1000 KVA DG set will be used as standby during power failure. Stack (height 15 m) will be provided as per CPCB norms to the proposed DG set. Proposed 25TPH coal/ rice husk fired boiler will be installed. Multi cyclone separator/ bag filter with a stack of height of 48 m will be installed for controlling the particulate emissions within the statutory limit for the proposed boiler.

#### **Details of process emissions generation and its management:**

The air pollution will be due to combustion emissions released by the boiler furnaces. The critical SPM concentration in the flue gas will be less than 30.0 mg/Nm<sup>3</sup>. Majority of the particulates (about 60-70%) will have sizes in the range of 2-10 µm. The emissions are expected to have temperature in the range of 140-150<sup>0</sup>C.

<b>S. No.</b>	<b>Facilities</b>	<b>Air Pollution Control equipment</b>	<b>Emission Level</b>
1.	Distillery Plant with Material Handling	a. Dust extraction system , ESP with Chimney b. Bag Filters for Grain house; and transfer points. Total 2Nos	PM - 50 mg/Nm <sup>3</sup>
2	AFBC based Co Generation power plant	ESP with Chimney And 2 Bag Filters at Coal conveyors	PM - 30 mg/Nm <sup>3</sup> SO <sub>2</sub> - 100 mg/Nm <sup>3</sup> Nox - 100 mg/Nm <sup>3</sup> Mercury(Hg) - 0.03

#### **Details of Solid waste/Hazardous waste generation and its management:**

### A. Solid Waste (Non-Hazardous)

- The grain based fermentation will result in high protein solids @ 75 MT/day. It will be used as cattle feed supplement & hence will be packed & marketed as by-product.
- The boiler furnace will result in ash generation @ 30 MT/day. It will be used in captive brick plant or will be given free to other brick makers or to the Cement Plants.
- Mud generated from Bio Methane Plant will be composted and given to the farmers for application in crops.
- The ETP Mud generated from treatment of water treatment ETP will be used for Brick making or given to Cement plants or will be used for land fill.

### B. Hazardous waste

- The plant facility will result in generation of about 5 kL/year of spent oils (lubricants and transformer oil), which will be stored on site and sold to authorised recyclers.

100% of Industrial Solid waste will be used in the following manner:

<b>Name of Waste generated</b>	<b>Qty (TPA)</b>	<b>Proposed Disposal Plan</b>
Coal Ash with Waste Media	17690.00	To be given free for Brick Making; Cement Plant or for back filling of Mined out land area
Bio Methane sludge	953.00	To be used for firing in Boiler of Co Gen Plant by mixing with Coal
ETP sludge from water treatment plant	673.00	Will be used in brick making after drying or would be given to Cement plant.
STP Sludge from Human Sewage treatment and Food waste	15.00	To be used in composting and then applied on green Belt
<b>Total</b>	<b>19331.00</b>	

After deliberations, the Committee **recommended** the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic Standard ToR enclosed at Annexure-1 and specific ToRs of Distillery industry at Annexure-2:

- The utilities in distillery unit shall be separate from steel unit and no interlinking shall be done.
- Layout of distillery shall be approved by Chief Controller of Explosives.
- PESO certificate shall be obtained.

- Low sulphur content coal shall be used as fuel. PM Emissions from burning of coal shall be less than 30mg/Nm<sup>3</sup>. Proper APCE i.e. ESP shall be installed with the proposed boiler. OCEMS shall be connected to CPCB/SPCB servers.
- Provision of desulphurization shall be provided at the stack.
- During the conduction of Public Hearing, cumulative pollution load of steel and distillery industry shall be presented and public opinion shall be detailed in EIA/EMP Report along with action plan.
- EIA/EMP Report shall cover individual risk, cumulative risk and societal risk referring to both the industries being established.
- No effluent shall be discharged outside plant premises. Distillery shall be based on ZLD concept.

#### **Agenda No. 33.4**

**Expansion of Distillery from 100 KLPD to 300 KLPD by M/s. Hermes Distillery Private Limited located at Gat No. 96/5A, 96/5B, 96/5C, 96/3A/2, 98/1B/3, 98/1B/4, 98/1B/5, Village Yadrav, Taluka Raibag, District Belagavi (Karnataka) –Amendment in Environment Clearance regarding.**

**[IA/KA/IND2/204051/2021, J-11011/143/2014-IA- II (I)]**

The proposal is for amendment in the Environmental Clearance granted by the Ministry of Environment, Forest and Climate Change (MOEF&CC), New Delhi vide letter no. J-11011/143/2014-IA- II (I) dated 26<sup>th</sup> February, 2019 for the expansion of Distillery from 100 KLPD to 300 KLPD at Gat No. 96/5A, 96/5B, 96/5C, 96/3A/2, 98/1B/3, 98/1B/4, 98/1B/5, Village Yadrav, Raibag Taluka, Belagavi district, Karnataka favour in of M/s Hermes Distillery Pvt. Ltd

The project proponent has requested for amendment in the EC with details as under:

<b>Sl. No</b>	<b>Para of EC issued by MoEF&amp;CC</b>	<b>Details as per EC</b>	<b>To be revised as</b>	<b>Justification</b>
1	Page No. 1 Point 2.0	Total area of 7.2 Ha at Gat No.96/5A, 96/5B, 96/5C, 96/3A/2, 98/1B/3,	Total land available with the project is 7.2 Ha on Gat No. 96/5A,	• HDPL is facing problem of land availability as the existing land (approved in EC) is not appropriate &

		98/1B/4, 98/1B/5.	96/5B,96/5C ,96/3A/2, 98/1B/3, 98/1B/4, 98/1B/5 with lease land of 0.92 Ha on Gat No. 98 / 1C.	adequate. Hence, a land on lease; (10% of total plot approved in EC) has been procured by HDPL to establish a New Boiler (bagasse based) of 36 TPH required for 100 KLPD Grain Distillery.  <ul style="list-style-type: none"> <li>Lease Land (R.S. No. 98/1C) is taken from the Industry's sister concern Shivshakti Sugars Ltd., Yadrav, Tal.: Raibag, Dist.: Belgaum located (on East) next to HDPL Plot.</li> <li>Agreement made vide No. I- 3561/20.21 dt. 24.06.2020.</li> </ul>
2	Page No. 2 Point 6.0, Para 4	Existing unit has 35 TPH boiler and additionally 75 TPH coal/ spentwash fired boiler will be installed.	Existing 100 KLPD Molasses unit has 35 TPH Incineration Boiler. Under 200 KLPD expansion, for 100 KLPD Grain based Distillery; a 36 TPH bagasse based boiler will be installed and for the 100 KLPD Molasses based Distillery, a	<ul style="list-style-type: none"> <li>For 200 KLPD expansion (100 KLPD Molasses + 100 KLPD Grain); single 75 TPH Incineration Boiler based on Coal &amp; Spentwash was approved.</li> <li>As per Detailed Engineering, Market Demand &amp; Economic Conditions; putting dedicated 75 TPH Incineration Boiler is Non-economical &amp; Non-viable.</li> <li>For 100 KLPD Molasses Distillery; 39 TPH dedicated Incineration Boiler and for the 100 KLPD</li> </ul>

			39 TPH Incineration Boiler on coal & spentwash will be erected. Distillery will be operated for 330 Days.	Grain Distillery, 36 TPH Bagasse fired Boiler is planned. <ul style="list-style-type: none"> <li>Lease Land is vacant and has been approved for Industrial activity in EC granted for Sugar Factory &amp; Cogen Expansion of Shivshakti Sugars.</li> <li>With 36 TPH Boiler on Lease Land; there will not be any increase in "Pollution Load" &amp; "Production" beyond that approved in ECs of HDPL &amp; Shivshakti Sugars.</li> </ul>
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The Expert Appraisal Committee desired that project proponent shall ensure that a separate route for the steam shall be constructed. After detailed deliberations EAC **recommended** the amendments in EC, as proposed by the project proponent, with all other terms and conditions remain unchanged mentioned as below:

(i) Page No. 1 Point 2.0 shall be read as, "Total land available with the project is 7.2 Ha on Gat No. 96/5A, 96/5B,96/5C,96/3A/2, 98/1B/3, 98/1B/4, 98/1B/5 with lease land of 0.92 Ha on Gat No. 98 / 1C."

(ii) Page No. 2 Point 6.0, Para 4 shall be read as, "Existing 100 KLPD Molasses unit has 35 TPH Incineration Boiler. Under 200 KLPD expansion, for 100 KLPD Grain based Distillery; a 36 TPH bagasse based boiler will be installed and for the 100 KLPD Molasses based Distillery, a 39 TPH Incineration Boiler on coal & spentwash will be erected. Distillery will be operated for 330 Days."

**08<sup>th</sup> April, 2021 (Thursday)**

**Agenda No. 33.5**

**Expansion of Sugarcane crushing capacity from 12000 TCD to 18000 TCD and molasses based distillery from 160 KLPD to multifeed (B-heavy, cane juice, grains) based 300 KLPD distillery unit by M/s. Baramati Agro Limited located at village**



**Shetphalgade, Taluka- Indapur, District-Pune, Maharashtra -  
Consideration of Environment Clearance reg.**

**[IA/MH/IND2/197038/2016, J-11011/106/2016-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s SD Engineering Services Pvt. Ltd. made a detailed presentation on the salient features of the project.

The proposal is for environmental clearance to the project for Expansion of Sugarcane crushing capacity from 12000 TCD to 18000 TCD and molasses based distillery from 160 KLPD to multifeed (B-heavy, cane juice, grains) based 300 KLPD distillery unit by M/s. Baramati Agro Limited located at village Shetphalgade, Taluka- Indapur, District-Pune, Maharashtra.

All molasses based distilleries (>100 KLPD) are listed at S.N. 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 2<sup>nd</sup> March, 2021 the proposal is to be appraised as B2 category.

Standard ToR has been issued by Ministry vide File No. J-11011/106/2016-IA.II (I) dated 30<sup>th</sup> September 2020. Public Hearing has not been conducted as the proposal has been applied under B2 category to contribute in Ethanol Blending program by GOI. It was informed that no litigation is pending against the proposal.

Ministry had issued EC earlier vide letter No. J-11011/106/2016-IA-II (I) dated 20<sup>th</sup> March 2017 to the existing project from MoEF & CC, New Delhi for expansion of sugar unit (4500 TCD to 12000 TCD), Cogeneration Power Plant (20 MW to 70 MW) and Distillery Unit (60 KLPD to 160 KLPD) at post Shetphalgade, Tehsil Indapur, District Pune, Maharashtra in favour of M/s. Baramati Agro Limited

**The details of products and capacity are as under:**

Sr. no.	Description	Unit	Existing Capacity		Proposed Capacity	Total	Remark
			As per CTO	As per EC			
1.	Sugarcane crushing capacity	TCD	9000*	12000	6000	18000	None
2.	Co-generation Power	MW	30*	70	0	70	None
3.	Distillery Unit						

Sr. no.	Description	Unit	Existing Capacity		Proposed Capacity	Total	Remark
			As per CTO	As per EC			
a	Rectified Spirit or Extra Neutral Alcohol	KLPD	160*	160	0	160	Only one product at a time (No Change proposed)
b	Ethanol	KLPD	0	0	140	140	For Ethanol Blending Programme

Existing land area is 477600 m<sup>2</sup> & no additional land will be used for proposed expansion. Industry will develop greenbelt in an area of 35.59 % i.e., 170000 m<sup>2</sup> out of net plot area of the project. The estimated project cost is Rs 544.3013 Crores including existing investment of Rs. 419.3013 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 1100.00 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 165.00 Lakhs per annum. Total Employment will be 450 persons as direct & 500 to 1000 persons as indirect after expansion. Industry proposes to allocate Rs. 0.9375 crores @ of 0.75 % towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Water body Nimbodi Lake is at a distance of 3 Km in North East Direction.

Ambient air quality monitoring was carried out at nine locations during October 2020 to December 2020 and the baseline data indicates the ranges of concentrations as: PM10 43.65 to 74.68 µg/m<sup>3</sup>, PM 2.5 (22.05 to 54.36 µg/m<sup>3</sup>), SO<sub>2</sub> (5.12 – 24.51 µg/m<sup>3</sup>), NO<sub>2</sub> (9.21 – 28.24 µg/m<sup>3</sup>) and CO (0.08 to 1.38 mg/m<sup>3</sup>). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.05 µg/m<sup>3</sup>, 0.04 µg/m<sup>3</sup>, 0.51 µg/m<sup>3</sup>, and 0.20 µg/m<sup>3</sup> with respect to PM10, PM2.5, SO<sub>x</sub> and NO<sub>x</sub> respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is max 12670 MT/Day of which fresh water requirement of max 1144 MT/Day will be met from Khadakwasla Canal and Ujani Dam. Effluent of quantity 7347 MT/Day (Sugar factory trade effluent-660 MT/Day, Cogeneration power plant effluent- 237 MT/Day, Excess Condensates 3600 MT/Day, existing 60 KLPD Spent wash 570 MT/Day, 240 KLPD Distillery concentrated spent wash 270 MT/Day, Distillery Condensates and non -process effluent - 1798 MT/Day and domestic

effluent of 212 MT/Day). Sugar (660 MT/Day) and Co-generation power plant (237 MT/Day) effluent shall be treated in existing sugar factory ETP based on primary, secondary and tertiary treatment and disposed on land for irrigation. Excess condensates from sugar unit (3600 MT/Day) shall be treated in Sugar Condensates Polishing Unit (CPU) and reused as process water or makeup water for boiler and cooling towers. Existing 60 KLPD Distillery spentwash (570 MT/Day) shall be treated based on biomethanation followed by concentration to 120 MT/Day followed by bio-composting. The condensates 450 MT/Day shall be treated in distillery CPU and recycled back to process and utilities. The effluent generated from 240 KLPD distillery shall be treated based on Concentration and Incineration. The plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be 23.25 MW including existing 15.21 MW and will be met from own Co- generation power from existing 30 MW & proposed 40 MW TG attached to Bagasse/multi-feed fire boiler. Existing unit has 1 No. of DG sets of 500 kVA capacity, additionally 1\*500 KVA DG set is used as standby during power failure. Stack (height 6m) will be provided as per CPCB norms to the proposed DG sets. Existing unit has 1\* 40 TPH, 1\*110 TPH bagasse fired boiler for sugar and cogeneration power plant and 1\*10 TPH and 1\*32 TPH Incinerator boiler for distillery unit. Additionally 1\*110 TPH and 1\*50 TPH bagasse fired boilers will be installed. Electrostatic Precipitator (ESP) with a stack of height of 75 m will be installed for controlling the particulate emissions within the statutory limit for the proposed boilers.

**Details of process emissions generation and its management:**

**Air pollution control measures**

Sr . No	Boiler details	Fuel	Quantity	Source	Stack Height in Meters	APC Equipment
<b>Existing</b>						
<b>Sugar Unit</b>						
1	1*110 TPH	Bagasse	1080 MT/Day	Own sugar unit	65	ESP
2	1*40 TPH	Bagasse	418 MT/Day	Own sugar unit	49	ESP
3	DG Set	HSD	110 Ltr/hr	Open Market	6	Acoustic Enclosure
<b>Distillery unit</b>						
1	1*10 TPH	Biogas + Bagasse	Biogas: 32000 m3/Day	Anaerobic digester	40	Wet Scrubber

Sr . No	Boiler details	Fuel	Quantity	Source	Stack Height in Meters	APC Equipment
			Bagasse : 48 MT/Day	from distillery Own sugar unit		
2	1* 32 TPH Incinerator boiler	Concentrated Spent wash + Coal	CSW: 270 MT/Day Coal: 85 MT/Day	Distillery Spent wash Open market	70	ESP
3	DG Set (500 KVA)	HSD	110 Ltr/Hr	Open Market	6	Acoustic Enclosures
<b>Proposed</b>						
<b>Sugar Unit</b>						
1	1*110 TPH	Bagasse	1080 MT/Day	Own sugar unit	75	ESP
2	1*50 TPH	Bagasse	520 MT/Day	Own sugar unit		
<b>Distillery Unit</b>						
No additional boiler shall be installed for the proposed expansion.						

**Details of Solid waste/Hazardous waste generation and its management:**

**Details of non-hazardous waste generated and its disposal**

Sr. No	Description of waste	Quantity			UOM	Mode of collection and disposal
		Existing	Proposed	Total		
<b>Sugar and cogeneration unit</b>						
1	Fly/ Boiler ash	18.73	20	38.73	MT/D	Sell to brick manufacturers
2	ETP Sludge	150	150	300	MT/A	After drying, it will be sold for brick kiln
3	Press mud	360	360	720	MT/D	Mixed with concentrated spent wash as filler material

Sr. No.	Description of waste	Quantity			UOM	Mode of collection and disposal
		Existing	Proposed	Total		
						and treated in composting
<b>Distillery unit</b>						
1	Incineration boiler ash	26	28	54	MT/D	Sold as potash rich manure to farmers after mixing with press mud
2	Fly/ Boiler ash	0.6	--	0.6	MT/D	Sell to brick manufacturers
3	Yeast Sludge					
a	C Molasses	15	0	15	MT/D	After drying, it will be sold for brick kiln
b	B Heavy Molasses	13	11	24		
c	Cane Juice	0	5	5		
d	Grains	0	10	10		
<b>Other solid waste</b>						
1	Canteen waste	1.5	1.0	2.5	MT/D	Composting

#### Details of hazardous waste generated and its disposal

Sr. No.	Category	Description of waste	Quantity	Mode of Collection and Disposal
1.	5.1	Used Oil	2.0 KL/A	Shall be collected in Leak Proof Containers and utilized as lubricant for bullock carts

Certified EC compliance report obtained from Regional Officer, MoEF& CC, Nagpur vide File No. EC-5-87/2008/7404 Dated 02.11.2020. Site visit of RO was carried out on 05.10.2020. Partial compliance issued against Specific & general conditions. Industry complied the partial compliance & submitted action plan report to RO, MoEF&CC on 28.11.2020.

In compliance to notification dated 2<sup>nd</sup> March, 2021, PP has submitted Letter Of Intent obtained from various PSUs like Bharat Petroleum Corporation Ltd., Hindustan Petroleum Corporation Limited, Indian Oil Corporation Limited for supplying ethanol (biofuel).

During deliberations, EAC noted that PP & their consultant was not able to present this case clearly. They were not able to explain the queries and presentation was not up to the mark having sufficient details to take a considered view. Hence, EAC members directed the PP to properly prepare

the complete factual data related to project. PP was also asked to submit additional information in the subsequent EAC meeting.

During deliberations, the committee sought following additional information for further consideration of the proposal:

- Proper certified compliance report shall be presented along with action taken report for various non-complied points.
- Action plan for construction of rainwater collection ponds inside plant premises with details i.e. quantity of rainwater collected, capacity and dimensions of storage pond and their utilization for plant activities.
- Revised water balance shall be submitted taking into account of collection of rainwater.
- Action plan for proper and concrete development of parking area with time frame to be submitted.
- Action plan for development of road outside plant premises so that nearby farmers can be benefitted as a part of CER and dust problems faced during vehicle movement are avoided.

***The proposal was accordingly DEFERRED for the needful.***

### **Agenda No. 33.6**

**Expansion of Sugarcane crushing capacity from 2500 TCD to 8000 TCD, establishment of 40 MW Co-generation power plant and 110 KLPD Distillery to produce 110 KLPD Rectified Spirit/110 KLPD (Extra Neutral Alcohol`)/ 105KLPD(Ethanol) based on "C"/"B" Heavy Molasses/Sugarcane Juice/Syrup/Grains by M/s. Yashwant Sugar and Power Private Limited located at Nagewadi, Tal. Khanapur, Dist. Sangli Maharashtra - Consideration of Environment Clearance reg.**

[IA/MH/IND2/199983/2020, IA-J-11011/305/2020-IA-II(I)]

The Project Proponent and their accredited consultant Dr. Subbarao Environment Center, made a detailed presentation through video conferencing on the salient features of the project and informed that:

The proposal is for Environmental Clearance to the project Expansion of Sugarcane crushing capacity from 2500 TCD to 8000 TCD, establishment of 40 MW Co-generation power plant and 110 KLPD Distillery to produce 110 KLPD Rectified Spirit/110 KLPD (Extra Neutral Alcohol`)/ 105 KLPD (Ethanol) based on "C"/"B" Heavy Molasses/Sugarcane Juice/Syrup/Grains by M/s. Yashwant Sugar and Power Private Limited located at Nagewadi, Tal. Khanapur, Dist. Sangli Maharashtra.

All the project proposals are listed at S.N. 5(g) and 5(j) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

The Standard TORs has been issued by Ministry vide letter No. IA-J-11011/305/2020-IA-II(I); dated 09 Dec. 2020. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 27<sup>th</sup> Jan., 2021 and chaired by District Magistrate, Sangli. The main issues raised during public hearing were related to water requirement and depletion, air pollution due to coal usage, treatment of spent wash, ash ill-effects and measures to be implemented, treated effluent usage, employment opportunities, industrial effluent treatment and air pollution prevention, odor nuisance. It was informed that no litigation is pending against the project.

EC has not been obtained because at present sugarcane crushing capacity is only 2500 TCD. As per EIA Notification, 2006 there is no requirement of Environment Clearance for sugar industry having sugarcane crushing capacity less than 5000 TCD.

**The details of products and capacity as under:**

Sr. No.	Unit	Capacity			
		Existing	Proposed	Total	
1.	Sugarcane crushing capacity	2500 TCD	5500 TCD	8000 TCD	
2.	Cogeneration Power Plant	--	40 MW	40 MW	
3.	Distillery	--	110 KLPD	110 KLPD	
	Rectified Spirit or	--	110	110	Only one product at a time
	Extra Neutral Alcohol or	--	110	110	
	Ethanol	--	105	105	

Existing land area is 365500 m<sup>2</sup>, no additional land is required for proposed expansion. Industry will develop greenbelt in an area of 36.66 % i.e., 134000 m<sup>2</sup> out of total area of the project. The estimated project cost is Rs.350 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 34.00 Crores and the recurring cost (operation and maintenance) will be about Rs. 2.75 Crores per annum. Total Employment will be 250 persons as direct & 110 persons indirect after expansion. Industry proposes to allocate Rs. 2.625 Crore (0.75%) towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Yerela River is flowing at a distance of 5.1 km in North-West direction.

Ambient air quality monitoring was carried out at 8 locations during December 2019 to February 2020 and the baseline data indicates the ranges of concentrations as: PM10 (39.7 – 72.5 µg/m<sup>3</sup>), PM2.5 (21.3 –

42.5 µg/m<sup>3</sup>), SO<sub>2</sub> (8.4-30.4 µg/m<sup>3</sup>) and NO<sub>2</sub> (12.0-31.2 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.16 µg/m<sup>3</sup>, 0.10 µg/m<sup>3</sup>, 1.02 µg/m<sup>3</sup> and 0.42 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Initially the net water requirement will be 5520 m<sup>3</sup>/day, after the production starts the net water requirement will be zero as the entire condensate generated shall be treated and recycled as process water. The domestic water requirements of the distillery unit will be 100 m<sup>3</sup>/day. Total net water requirement is 5620 m<sup>3</sup>/day of which fresh water requirement of 0 m<sup>3</sup>/day. Effluent of 988 m<sup>3</sup>/day (Sugar & Co-generation effluents 423 m<sup>3</sup>/day, Spray pond Overflow 565 m<sup>3</sup>/day) quantity is generated from the sugar and cogeneration unit. This effluent shall be treated in upgraded sugar ETP. Treated effluent will be recycled for process water in Sugar and Distillery Unit and gardening purpose. Spent wash generated from proposed 110 KLPD distilleries shall be 176 m<sup>3</sup>/day and the proposed 110 KLPD distillery spent wash shall be treated using concentration and drying to form potash rich manure. The spent wash generated is restricted to less than 2 KL/ KL of alcohol produced for the proposed 110 KLPD Distillery. Other effluents like spent less 220 m<sup>3</sup>/day, DM plant wastewater 5 KLD, fermenter washings 30 KLD, boiler blow-down wastewater-10 KLD and cooling tower wastewater- 40KLD. All the effluents except concentrated spent wash and boiler blow-down shall be treated in CPU and treated effluent shall be recycled in process. The plant will be based on Zero Liquid discharge system for distillery effluents.

Power requirement after expansion will be 14.5 MW and will be met from its own proposed 40 MW co-generation power plant. It is proposed to install 2\*500 KVA DG Sets. Stack height of 6 m above roof level is provided as per CPCB norms for the DG sets. Existing unit has two bagasse fired boilers, 2\*17.5 TPH. After the proposed expansion the existing boilers shall be abandoned and 200 TPH of bagasse fired boiler for sugar unit and 30 TPH boiler for distillery unit will be installed. ESP with a stack of height of 80 m shall be provided for both the boilers.

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

SO<sub>2</sub> and CO<sub>2</sub> gases shall be scrubbed. CO<sub>2</sub> gas shall be recovered.

#### **Details of Solid waste/ Hazardous waste generation and its management:**

- Press mud generated will be around 320 MT/D which shall be sold as manure.
- Fly ash generated will be 482.4 MT/M.
- Ash generated shall be used for brick manufacturing in factory premises.



- The total quantity of ETP sludge generated shall be 300 MT/A, which shall be sold as manure.
- Hazardous waste is spent oil of 1.01 MT/Annum shall be utilized in-house for the lubrication of bullock carts.

As per EIA Notification there is no requirement of Environment Clearance for sugar industry having sugarcane crushing capacity less than 5000 TCD. At present sugarcane crushing capacity is only 2500 TCD. Therefore, industries do not require environmental clearance and hence Regional Office, MoEF & CC Monitoring Report is not applicable.

During deliberations, EAC desired additional information/commitments as under:

- Undertaking stating that critically polluted area does not fall within 10 km radius study area.
- Commitment that concentrated spent wash shall be used as fuel in incineration boiler or dry powder making by ATFD technology and no bio-composting shall be carried out.
- Commitment that ash disposal will be done in brick manufacturing plant proposed within plant premises.
- Undertaking that no coal shall be used as a fuel and if used then low Sulphur coal shall be used.
- Assurance that treated effluent of sugar mill shall be used within plant premises only and distillery effluent shall be recycled internally within process itself. As such, no treated effluent shall be discharged outside plant premises.
- Action plan for greenbelt development @2500 trees per hectares and 5-10 m width with number and name of tree species to be grown.
- Action plan for construction of rainwater collection ponds inside plant premises with details i.e. quantity of rainwater collected, capacity and dimensions of storage pond and their utilization for plant activities.
- Revised isopleths to be submitted as per the dominant wind direction and proper direction of plume generated due to incremental concentrations.
- Action plan for development of parking area to the tune of 16-18% i.e. more than 15% as already submitted.
- Traffic management plan shall be submitted.
- OHS (Occupational Health & Safety) budget shall be increased to Rs. 40 Lakhs and activities with allocation of budget shall be submitted.
- Proper and detailed risk mitigation plan shall be submitted.

As desired by EAC, PP has not submitted complete and proper additional details as mentioned above. Undertaking stating that no CPA lies in study area, action plan for greenbelt development, rainwater harvesting, parking development, proper break up for OHS budget and activities has not been submitted as committed during deliberation. EAC had already conveyed during the EAC meeting that if all the documents are not submitted properly, project will be deferred.

***The proposal was accordingly DEFERRED for the needful.***

**Agenda No. 33.7**

**Expansion of Molasses based Distillery from 60 KLPD to 150 KLPD by M/s. Gangamai Industries and Constructions Ltd. located at Najik Babhulgaon, Taluka Shevgaon, District Ahmednagar (Maharashtra) –Amendment in Environment Clearance regarding.**

**[IA/MH/IND2/206379/2021, J-11011/14/2015-IA- II (I)]**

The proposal is for amendment in the Environmental Clearance granted by the Ministry of Environment, Forest and Climate Change (MOEF&CC), New Delhi vide letter no. J-11011/14/2015-IA- II (I) dated 07<sup>th</sup> January, 2020 for the expansion of of Molasses based Distillery from 60 KLPD to 150 KLPD, at Najik Babhulgaon, Taluka Shevgaon, Ahmednagar district, Maharashtra in favour of M/s. Gangamai Industries and Constructions Ltd.

The project proponent has requested for amendment in the EC with details as under:

<b>Sl. No</b>	<b>Para of EC issued by MoEF&amp;CC</b>	<b>Details as per EC</b>	<b>To be revised as</b>	<b>Justification</b>
1	Page No. 1, Para 4	Total land area available for the project is 33.70 ha. Industry has developed green belt in an area of 10.18 ha covering 38% of total plot area. The estimated project cost for expansion is Rs. 75.11	Total land area available for the project is 33.70 ha. Industry has developed green belt in an area of 10.18 ha covering 38% of total plot area. The estimated project cost for expansion is Rs. 113.6 Crores including the existing investment. Total capital cost	Increase in the Project Cost, Capital as well as O & M Costs towards Environmental Management is due to addition of a new Incineration Boiler & APC Equipment like 81 M Stack and ESP.

		<p>Crores including existing investment. Total capital cost earmarked towards environmental pollution control measures is Rs. 7.90 Crores and the recurring cost (O&amp;M) will be about Rs.0.53 Crores per annum. The project will provide employment for 50 persons.</p>	<p>earmarked towards environmental pollution control measures is Rs. 46.4 Crores and the recurring cost (O&amp;M) will be about Rs. 5 Crores per annum. The project will provide employment for 50 persons.</p> <p>The distillery plant will be operated for 330 Days / Annum.</p>	
2	Page No. 2, Para 6	<p>Spent wash generated from distillery of 1182 cum/day shall be treated in bio-methanation plant followed by concentration in MEE. Concentrate spent wash shall be forwarded to agitator thin film dryer (ATFD) for</p>	<p>Spent wash generated from distillery of 1182 cum/day shall be treated in bio-methanation plant followed by concentration in MEE. The concentrated spent wash shall be forwarded to agitator thin film dryer (ATFD) for drying and forms dry powder (95% / 99% solids). Spent wash Powder (95%) will be mixed with Cogeneration Plant Boiler ash</p>	<p>Adoption of Incineration Technology in addition to existing Drying Technology either for burning the spentwash powder in no demand period in the incineration boiler or by burning the Concentrated Spentwash into the Incineration Boiler. The weight and volume of the spentwash</p>

		<p>drying and forms dry powder 95% or 99% solids. Powder (95%) will be mixed with boiler ash to form manure during crushing season and powder (99%) bagged and sold during non-crushing season.</p>	<p>(bagasse ash) to form manure during crushing season and powder (99%) shall be bagged and sold during non-crushing season.</p> <p>Further, during no demand period for the Spentwash powder, either the Spentwash powder or Concentrated Spentwash (after MEE) will be directly burnt in to Incineration Boiler. The ash will be used for brick manufacturing in own premises / supplied to outside parties.</p>	<p>powder would get reduce due to its conversion into ash and the ash will be used for brick manufacturing in own premises / supplied to outside parties.</p>
3.	Page No. 2, Para. 6	<p>Existing unit has 8 TPH Biogas fired boiler. Bagasse fired boiler of 30 TPH will be modified to 40 TPH. Steam from both boilers shall be used in distillery. Electrostatic preceptor (ESP) Along with stack of 76 m height shall be installed to</p>	<p>Steam required for distillery operations will be taken from new 40 TPH Incineration Boiler.</p> <p>ESP as APC Equipment followed by stack height of 81 M AGL will be provided for the same.</p>	<p>Instead of 48 TPH Boiler capacity (8 TPH Biogas Boiler + 40 TPH modified Sugar Factory Boiler), only 40 TPH Incineration Boiler will be used.</p>

		control the particulate emission.		
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The Expert Appraisal Committee desired that incineration boiler's emission shall be monitored with OCEMS (Online Continuous Emission Monitoring System) which shall be connected to CPCB and MPCB servers. Further, EAC mandated that operation of the spentwash incineration boiler shall be within the pollution load which is sanctioned in the prior EC obtained. PP has submitted the required details in compliance of above.

After detailed deliberations EAC **recommended** the amendments in EC, as proposed by the project proponent, with all other terms and conditions remain unchanged mentioned as below:

(i) Page No. 1, Para 4 shall be read as, "Total land area available for the project is 33.70 ha. Industry has developed green belt in an area of 10.18 ha covering 38% of total plot area. The estimated project cost for expansion is Rs. 113.6 Crores including the existing investment. Total capital cost earmarked towards environmental pollution control measures is Rs. 46.4 Crores and the recurring cost (O&M) will be about Rs. 5 Crores per annum. The project will provide employment for 50 persons. The distillery plant will be operated for 330 Days / Annum."

(ii) Page No. 2, Para 6 shall be read as, "Spent wash generated from distillery of 1182 cum/day shall be treated in bio-methanation plant followed by concentration in MEE. The concentrated spent wash shall be forwarded to agitator thin film dryer (ATFD) for drying and forms dry powder (95% / 99% solids). Spent wash Powder (95%) will be mixed with Cogeneration Plant Boiler ash (bagasse ash) to form manure during crushing season and powder (99%) shall be bagged and sold during non-crushing season. Further, during no demand period for the Spent wash powder, either the Spent wash powder or Concentrated Spent wash (after MEE) will be directly burnt in to Incineration Boiler The ash will be used for brick manufacturing in own premises / supplied to outside parties."

(iii) Page No. 1, Para 4 shall be read as, "Steam required for distillery operations will be taken from new 40 TPH Incineration Boiler. The distillery plant will be operated for 330 Days / Annum. ESP as APC Equipment followed by stack height of 81 M AGL will be provided for the same."

## **Any other Items with permission of the Chair**

### **Agenda No. 33.8.1**

#### **Discussion on Standardization/Optimization of conditions w.r.t. Standard Terms of Reference (ToR).**

Following items and project/activities as per the EIA Notification, 2006 related to Industry-2 sector has been considered.

1(b)	Off-shore and onshore oil and gas exploration, development and production
4(a)	Petroleum refining industry
4(b) (ii)	Coaltar processing units
5(c)	Petro-chemical complexes (industries based on processing of petroleum fractions & natural gas and/or reforming to aromatics).
5 (d)	Manmade fibres manufacturing
5 (e)	Petrochemical products and petrochemical based processing such as production of carbon black and electrode grade graphite (processes other than cracking & reformation and not covered under the complexes)
5(g)	Distilleries
5 (j)	Sugar industry
6(a)	Oil & gas transportation pipeline (crude and refinery/petrochemical products), passing through national parks/sanctuaries/coral reefs/ecologically sensitive areas including LNG Terminal

Standard ToRs for all the above concerned activities were circulated to EAC members. It was decided that members will provide their comments/suggestions/modifications/up-gradations related to all activities as per their identification/discussion. All the received comments/suggestions/modifications/up-gradations shall be compiled activity-wise and presented before EAC members for further discussion in subsequent EAC meetings.

## **Agenda No. 33.8.2**

### **IUCN's presentation on Biodiversity Impact Assessment Studies**

Hon'ble Supreme Court of India vide its order dated 07.09.2017 directed M/s Oil India Limited (OIL) to get the "Biodiversity Impact Assessment(BIA) Study" carried out through Assam State Biodiversity Board(ASBB) regarding the proposal to extract hydrocarbon beneath 3900-4000 meters of Dibru-Saikhowa National Park.

In view of non-compliance of the aforementioned order, Hon'ble Gauhati High Court vide an interim order dated 7<sup>th</sup> December 2020 stayed the EC granted by the Ministry dated 11.05.2020 in favour of M/s OIL for proposed drilling and testing of Hydrocarbons at 7 (seven) locations in Dibru-Saikhowa National Park area.

In this backdrop, M/s. OIL approached the ASBB to undertake the BIA Study. The ASBB replied that amid situation in Baghjan/Dibru - Saikhowa/Maguri-Motapung Beel area aftermath of the oil-well blowout, the Board would not be able to undertake the study. Subsequently, M/s OIL conveyed its willingness to engage an agency of international repute to undertake the BIA Study as per the template developed by ASSB and under the supervision of ASBB.

As matter of fact, International Union for Conservation of Nature(IUCN) enjoys the status of an observer in the United Nations and it also possesses advanced tools and expertise to undertake BIA Studies for third parties. Therefore, ASBB enquired willingness of IUCN to carry out the BIA Study under its supervision.

Subsequently, Dr. Vivek Saxena, Country Representative, IUCN India vide letter dated 02.03.2021 informed Ministry that IUCN would be engaging with M/s OIL for carrying out BIA Study at Northwest of Baghjan in Tinsukia District, Assam.

Thereafter, Ministry welcomed the move and requested IUCN to share its expertise for better understanding of the BIA studies as a knowledge transfer session. In this light, IUCN given a presentation before the EAC.

Dr. Vivek Saxena, Country Representative (India), International Union for Conservation of Nature (IUCN) with his team participated through VC. They have explained briefly about the vision and mission of IUCN. They informed that IUCN India network comprises of about 43 members, including Ministry of Environment, Forests & Climate Change (MoEF&CC) as State Member and more than 1100 commission members, represented through 6 IUCN Commissions.

Further, they informed that IUCN Business and Biodiversity Programme was established in 2003 to influence and support private partners in addressing environmental and social issues and engage the business sectors that have a significant impact on natural resources and livelihoods.

In this light they made a detailed presentation of Biodiversity Impact Assessment studies on how IUCN generates and consolidates data. They gave an account on tools they possess which essential to nature conservation such as The IUCN RED LIST OF THREATENED SPECIES, ECOLEX, The IUCN Red List of Ecosystems, IUCN World Heritage Outlook etc. They concluded the presentation with a small brief on their projects on IUCN Dhamra Port management and IUCN Tata Steel Engagement – Steel making and Mining.

### **Agenda No. 33.8.3**

**The proposal is for clarification of applicability of Environmental Clearance for production of the Bitumen Emulsions - 50,000 MTA, Modified Bitumen – 36,000 MTA and Road bond - 1000 MTA the Bitumen Emulsions - 50,000 MTA, Modified Bitumen – 36,000 MTA and Road bond - 1000 MTA from Bitumen at Malkapuram VPT Industrial Zone in Visakhapatnam, Andhra Pradesh by M/s. Hindustan Colas Private Limited.**

### **Observations and Recommendation of the EAC in 31<sup>st</sup> EAC (Industry -2) meeting held on 3<sup>rd</sup> March, 2021:**

EAC has deliberated on the proposal and clarified that prior Environmental Clearance is required for the production of Bitumen Emulsions, Modified Bitumen and Road bond from Bitumen. Further, EAC decided that the activity falls under category 4(a) [Petroleum Refining Industry] of Schedule of EIA Notification, 2006.

Subsequently, query was raised by competent authorities, where the matter was again discussed during EAC meeting and members deliberated that PP shall be asked to submit the case in order to understand the environmental impact implications in terms of chemical & physical process that is involved in conversion of bitumen to bitumen emulsions etc.

The meeting ended with thanks to the Chair.

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## **ANNEXURE-1**

### **GENERIC TERMS OF REFERENCE (ToR) IN RESPECT OF DISTILLERY SECTOR**

#### **1. Executive Summary**

#### **2. Introduction**

- i. Details of the EIA Consultant including NABET accreditation
- ii. Information about the project proponent
- iii. Importance and benefits of the project

#### **3. Project Description**

- i. Cost of project and time of completion.
- ii. Products with capacities for the proposed project.
- iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other chemicals and materials required with quantities and storage capacities
- vi. Details of Emission, effluents, hazardous waste generation and their management.
- vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
- viii. Process description along with major equipments and machineries, process flow sheet (quantitative) from raw material to products to be provided
- ix. Hazard identification and details of proposed safety systems.
- x. Expansion/modernization proposals:

a) Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate

for the ongoing existing operation of the project from SPCB shall be attached with the EIA-EMP report.

b) In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

#### **4. Site Details**

- i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
- ii. A toposheet of the study area of radius of 10 km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
- iii. Details w.r.t. option analysis for selection of site
- iv. Co-ordinates (lat-long) of all four corners of the site.
- v. Google map-Earth downloaded of the project site.
- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Landuse break-up of total land of the project site (identified and acquired), government/ private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- x. Geological features and Geo-hydrological status of the study area shall be included.
- xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood

- Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
- xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
  - xiii. R&R details in respect of land in line with state Government policy.

#### **5. Forest and wildlife related issues (if applicable):**

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
- ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha)
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon.
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area.
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

#### **6. Environmental Status**

- i. Determination of atmospheric inversion level at the project site and site-specific micrometeorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with - min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

- iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio-economic status of the study area.

## **7. Impact Assessment and Environment Management Plan**

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on hilly terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be well assessed. Details of the model used and the input data used for modeling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modeling- in case, of discharge in water body
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E (P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.

- vi. Details of hazardous waste generation, and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/ reuse/ recover techniques, Energy conservation, and natural resource conservation.
- vii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- viii. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- ix. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- x. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xi. Action plan for post-project environmental monitoring shall be submitted.
- xii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

#### **8. Occupational health:**

- i. Plan and fund allocation to ensure the occupational health and safety of all contract and casual workers.
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analyzed data of abovementioned parameters as per age, sex, duration of exposure and department wise.
- iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved.

- iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

**9. Corporate Environment Policy**

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
- ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
- iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
- iv. Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report.

**10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.**

**11. Enterprise Social Commitment (ESC)**

- i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.

**12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.**

**13. A tabular chart with index for point wise compliance of above TORs.**

**ADDITIONAL ToRs FOR DISTILLERY**

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses/grains, their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Plan to reduce spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard (if applicable).
13. Action plan to control odour pollution. 14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device)

### **ANNEXURE-3**

#### **GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE**

- (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 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 31<sup>st</sup> 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.
- (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.

**List of the Expert Appraisal Committee (Industry-2) members participated during Video Conferencing (VC) meeting**

<b>S. No.</b>	<b>Name and Address</b>	<b>Designation</b>
1.	Dr. J. P. Gupta	Chairman
2.	Sh. R.K. Singh	Member
3.	Shri Ashok Agarwal	Member
4.	Dr. Y.V. Rami Reddy	Member
5.	Ms. Saloni Goel	Member
6.	Shri S.C. Mann	Member
7.	Dr. I. Indrasena Reddy	Member
8.	Dr. T. K. Joshi	Member
9.	Dr. J. S. Sharma	Member
10.	Dr. Uma Kapoor	Member
11.	Shri Dinabandhu Gouda, CPCB	Member
12.	Shri Sanjay Bist	Member
13.	Dr. Aniruddha Pandit	Member
14.	Sh. Ashok Kr. Pateshwary, Director, MoEFCC	Member Secretary
<b>MoEFCC</b>		
15.	Dr. MahendraPhulwaria	Scientist 'C'
16.	Sh. Kanaka Teja	Research Assistant
17.	Ms. Meetika Gupta	Research Associate

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