

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

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**Dated: 13.06.2022**

**Meeting ID: IA/IND2/13236/08/06/2022**

**MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE  
(INDUSTRY-2 SECTOR PROJECTS)**

**HELD ON 08<sup>th</sup> - 09<sup>th</sup> June, 2022**

**Venue: Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh 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 received from the EAC members on the minutes of its 06<sup>th</sup> Meeting of the EAC (Industry-2) held during 19<sup>th</sup> May, 2022 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.

**(iii) 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: -**

**08<sup>th</sup> June, 2022 (Wednesday)**

**Agenda No. 1**

**Greenfield Project of 275 KLD Grain Based Ethanol Plant along with 7 MW Cogeneration Power Plant located at Village Ratul, PO Katna, PS Gazole, District Malda, West Bengal by M/s. JSR Grain Energy Private Limited - Consideration of Environment Clearance**

**[IA/WB/IND2/271381/2022, IA-J-11011/159/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Grass Roots Research & Creation India (P) Ltd. made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for proposed grain based distillery 275 KLPD and 7.0 MW co-generation power plant (biomass) at Village Ratul, PO Katna, PS Gazole, District Malda, West Bengal by M/s. JSR Grain Energy Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

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

<b>S. No.</b>	<b>Name of unit</b>	<b>Name of the product/by-product</b>	<b>Production capacity</b>
1	Distillery plant	Ethanol	275 KLPD
2	Co-generation power plant	Power	7.0 MW
3	DWGS dryer	DDGS	123.8 TPD
4	Fermentation unit	Carbon di-oxide	103 TPD

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

Total land area required is 13.81hectares. Greenbelt will be developed in total area of 4.56 hectares i.e., 33.0% of total project area. The estimated project cost is Rs. 249.98 Crores. Capital cost of EMP would be Rs. 29.99 Crores and recurring cost for EMP would be Rs. 9.21Crores per annum.Industry proposes to allocate Rs. 2.49 Crores towards Corporate Environment Responsibility. Total Employment will be 131persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. During presentation, PP informed that Tangon River is at a distance

of 9.9 km towards East and Chhiramati Nala is at a distance of 8.5 km towards West-North-West.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.04 $\mu\text{g}/\text{m}^3$ , 0.02 $\mu\text{g}/\text{m}^3$ , 3.06 $\mu\text{g}/\text{m}^3$  and 0.7  $\mu\text{g}/\text{m}^3$  with respect to PM10, PM2.5, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1234 m<sup>3</sup>/day (1084 m<sup>3</sup>/day for distillery unit and 150 m<sup>3</sup>/day for co-generation power plant & domestic purposes) which will be met from ground water augmented with rainwater. Effluent of 1187 m<sup>3</sup>/day quantity will be treated through Condensate Polishing Unit (1300 m<sup>3</sup>/day). Raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS. The plant will be based on Zero Liquid discharge system. STP will be installed to treat sewage generated from factory premises. RO rejects will be used for dust suppression.

Power requirement will be 7.0 MW and will be met from proposed 7.0 MW co-generation power plant. 55 TPH biomass fired boiler will be installed. ESP with a stack of height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed boiler. 2x1000 KVA DG set will be used as standby during power failure and stack height (30 m) will be provided as per CPCB norms to the proposed DG sets.

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

- ESP with a stack height of 60 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 generated during the fermentation process will be collected by utilizing CO2 scrubbers and sold to authorized vendors.

#### **Details of solid waste/Hazardous waste generation and its management**

- DDGS (Distilled Dried Grains Stillage) (123.8 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (19800 tonnes per annum) will be utilized for brick manufacturing inside plant premises.
- Used oil (2.0 tonnes per annum) will be sold to authorized recyclers.
- CPU Sludge (60 tonnes per annum) will be disposed to authorized recyclers.

As per Notification S.O 2339(E), dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 275 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that land has been acquired and land use conversion application has been submitted to Office of the Sub-Divisional land and Land Reforms Office for 10.14 Ha whereas land use conversion of 3.67 Ha is completed. EAC found the information satisfactory.

During deliberations, PP informed that railway site is at a distance of 50 m. EAC discussed the following issues:

- PP shall obtain NOC from National Highway Authority of India as project is located 150 m away from highway and Indian Railways department as project is located 50 m away from Railways before commencement of construction.
- Regarding linkage of approach road from plant to highway/service lane, PP informed the land will be acquired.
- Adequate greenbelt of 20 m width towards the side of Church shall be developed.
- Land use conversion for 10.14 Ha shall be complete before commencement of operations.
- Carbon di-oxide shall not be released into the atmosphere. Instead collected with scrubbers and sold to authorized vendors.
- Native species to be planted for development of greenbelt.
- CER budget will be utilized for Ratul, Mahanagar, Bejamala Nikur villages, activities & budget also. Instead of RO, provisions for potable water shall be carried out in villages.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

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

misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

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

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: -

- (i). As per the Notification S.O. 2339(E), dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 275 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (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). NOC from NHAI and Railway department shall be obtained before commencement of construction.
- (iv). 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.
- (v). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (vi). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from ground water augmented with rainwater. Prior permission shall be obtained for ground water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vii). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Boiler ash will be utilized for making bricks in the proposed brick making unit. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power.
- (viii). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (ix). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (x). 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.

- (xi). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (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 nearly 33% of the total project area @ 2500 trees per hectares, 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. Greenbelt shall be developed before commissioning of the plant and adequate greenbelt of 20 m width towards the side of Church shall be developed.
- (xv). PP proposed to allocate Rs. 2.49 Crores towards CER which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvi). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xvii). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Internal roads shall be made pucca.

- (xviii). 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.
- (xix). 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. 2**

**Proposed New 100 KLPD Grain based distillery producing Ethanol, solely to be used for Ethanol Blended Petrol Programme of the "Government of India" along with 3.35 MW Cogeneration Power Plant located at Plot No. E-3, Indapur Industrial Area, Village- Loni Deokar, Tal. Indapur, Dist. Pune, Maharashtra by M/s. Mahatma Agricos Agro Industries Pvt. Ltd - Consideration of Environment Clearance**

**[IA/MH/IND2/269691/2022, IA-J-11011/147/2022-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 and informed that the proposal is for environmental clearance to the project for proposed grain based distillery 100 KLPD and 3.35 MW co-generation power plant (biomass/coal fired) at Plot No. E-3, Indapur Industrial Area, Village- Loni Deokar, Tal. Indapur, Dist.Pune, Maharashtra by M/s. Mahatma Agricos Agro Industries Pvt. Ltd.

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

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



<b>S. No.</b>	<b>Name of unit</b>	<b>Name of the product/by-product</b>	<b>Production capacity</b>
1	Distillery plant	Ethanol	100 KLPD
2	Co-generation power plant	Power	3.35 MW
3	DWGS dryer	DDGS (Rice/corn)	47/70 TPD
4	Fermentation unit	Carbon di-oxide	80 TPD

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

Total land area required is 9.3793 Hectares. Greenbelt will be developed in total area of 3.10 Hectares i.e., 33.05% of total project area. The estimated project cost is Rs. 160.0 Crores. Capital cost of EMP would be Rs. 16.05 Crores and recurring cost for EMP would be Rs. 2.637 Crores per annum. Industry proposes to allocate Rs. 1.6 Crores towards Corporate Environment Responsibility. Total Employment will be 450 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. PP informed that Ujani Reservoir(Backwater) is flowing at a distance of 6.3 in North direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.105µg/m<sup>3</sup>, 0.035µg/m<sup>3</sup>, 2.717µg/m<sup>3</sup>with respect toPM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 400 m<sup>3</sup>/day which will be met from MIDC, Indapur. Effluent (450 m<sup>3</sup>/day) will be treated through Condensate Polishing Unit (500 m<sup>3</sup>/day). Raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS. The plant will be based on Zero Liquid discharge system. Domestic wastewater will be treated in proposed STP. Treated effluent/sewage will be recycled/reused in process and cooling make up water within the premises.

Power requirement will be 3.35 MW and will be met from proposed 3.35 MW co-generation power plant. 30 TPH Biomass/coal fired boiler will be installed. Electrostatic Precipitator with a stack of height of 65m will be installed for

controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed boiler. No DG sets are proposed.

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

- Electrostatic Precipitator with a stack height of 65 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO<sub>2</sub> generated during the fermentation process 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**

- DDGS (Distilled Dried Grains Stillage) (47/70 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (84 TPD) will be utilized in proposed in-house brick manufacturing unit.
- Used oil (0.02 TPD) will be sold to authorized recyclers.
- ETP Sludge (0.01 TPD) will be reused as manure.

As per Notification S.O 2339(E), dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 100 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that land is allotted in Indapur Industrial Area, Maharashtra Industrial Development Corporation (MIDC). EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Ash management was discussed. PP shall commit that brick manufacturing unit shall be installed within premises.
- Capital cost of EMP & recurring cost is too less. Revised EMP capital cost including CEMS shall be submitted. PP has increased the cost to Rs. 16.05 Crores and revised break up of EMP.
- Revised greenbelt plan @ 2500 trees per hectares.
- Revised fresh water requirement @ 4 KL/KL shall be given as it is on higher side i.e. 5.89 KL/KL. PP has reduced fresh water requirement to 400 KLPD from 589 KLPD.
- Revised Corporate Environment Responsibility break up specifically mentioning villages, activities & budget also.
- Incremental Ground Level Concentration.

Committee was satisfied with the response of project proponent. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

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

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

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: -

- (i). As per the Notification S.O. 2339(E), dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 100 KLPD shall only be used

for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

- (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). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from ground water (MIDC, Indapur Industrial area). Prior permission shall be obtained for ground water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Boiler ash will be utilized for making bricks in the proposed brick making unit. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power.
- (vii). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (viii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of

the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

- (ix). 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.
- (x). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xi). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xii). 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.
- (xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area @ 2500 trees per hectares, 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. Greenbelt shall be developed before commissioning of the plant.
- (xiv). PP proposed to allocate Rs. 1.6 Crores towards CER which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.

- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Internal roads shall be made pucca.
- (xvii). 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.
- (xviii). 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. 3**

#### **Greenfield Project of 100 KLD Grain Based Ethanol Plant along with 4 MW Co-generation Power Plant located at Village-JeevanwaliDhani, P.O- Bagar, Tehsil & District-Jhunjhunu, Rajasthan by M/s JS Global Bio Fuels Private Limited- Consideration of Environment Clearance**

**[IA/RJ/IND2/274489/2022, IA-J-11011/158/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Grass Roots Research & Creation India (P) Ltd. made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for proposed grain based distillery 100 KLPD and 4.0 MW co-generation power plant (biomass) at Village-JeevanwaliDhani, P.O- Bagar, Tehsil & District-Jhunjhunu, Rajasthan by M/s JS Global Bio Fuels Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a

notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

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

<b>S. No.</b>	<b>Name of unit</b>	<b>Name of the product/by-product</b>	<b>Production capacity</b>
1	Distillery plant	Ethanol	100 KLPD
2	Co-generation power plant	Power	4.0 MW
3	DWGS dryer	DDGS	65 TPD
4	Fermentation unit	Carbon di-oxide	40 TPD

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

Total land area required is 10.44 Hectares. Greenbelt will be developed in total area of 3.65 Hectares i.e., 34.96% of total project area. The estimated project cost is Rs. 139 Crores. Capital cost of EMP would be Rs. 14.0 Crores and recurring cost for EMP would be Rs. 3.98 Crores per annum. Industry proposes to allocate Rs. 1.39 Crores towards Corporate Environment Responsibility. Total Employment will be 110 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Jhunjhunu Beed Conservation Reserve Forest is at a distance of 2.6 km towards South West. Kantli River is at a distance of 6.1 km towards East.

AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.41µg/m<sup>3</sup>, 1.54µg/m<sup>3</sup>, 2.72µg/m<sup>3</sup>, 1.68µg/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).

Total fresh water requirement will be 498 m<sup>3</sup>/day which will be met from 15.5 MLD STP treated water from Nagar Parishad Jhunjunu. No Ground water will be used during construction and operation phase. Effluent of quantity 439 m<sup>3</sup>/day will be treated through Condensate Polishing Unit (550 m<sup>3</sup>/day). Raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS. The plant will be based on Zero Liquid discharge system. STP will be installed to treat sewage.

Power requirement will be 3.0 MW and will be met from 4.0 MW co-generation power plant. 20 TPH biomass/coal fired boiler will be installed. ESP/bag filter with a stack of height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed boiler. 2x500 KVA DG set will be used as standby during power failure and stack height (30 m) will be provided as per CPCB norms to the proposed DG sets.

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

- ESP/bag filter with a stack height of 60 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO<sub>2</sub> (40 TPD) generated during the fermentation process 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**

- DDGS (Distilled Dried Grains Stillage) (65 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (13860 TPA) will be utilized in own brick manufacturing unit.
- Used oil (2.5KL/annum) will be sold to authorized recyclers.
- ETP Sludge (46.2 TPA) will be reused as manure.

As per Notification S.O 2339(E), dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 100 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that land is under possession of the company and land use conversion application has been submitted. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Land use conversion shall be obtained before commencement of construction.
- Develop greenbelt along the kuccha road as seen in Google Earth. Develop a boundary along the road and develop a passage.
- Native Shrubs available within plot area shall be relocated around the project site. Realign plant layout as shrubs are towards South side and plant layout shall be designed so that minimal disturbance to shrubs shall be done.



- Greenbelt of 20 m width shall be developed towards South West i.e. towards the Protected Forest. Thick greenbelt should also be provided towards school.
- Recheck stack height as mentioned in Form-2. Also, stack heights shall be recalculated using coal as fuel and latest prescribed norms.
- PP should explore to install air cooled condensers for boiler instead of water cooled systems as area falls under water scarcity region.

Committee was satisfied with the response of project proponent. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

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

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

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: -

- (i). As per the Notification S.O. 2339(E), dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 100 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (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). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. CLU certificate shall be obtained before start of construction activities.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from STP treated water augmented with rainwater. Prior permission shall be obtained for ground water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Boiler ash will be utilized for making bricks in the proposed brick making unit. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low

sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power.

- (vii). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (viii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (ix). 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.
- (x). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xi). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xii). 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.
- (xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area @ 2500 trees per hectares, 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. Greenbelt shall be developed before commissioning of the plant. Greenbelt of 20 m width shall be developed towards South West i.e. towards the Protected Forest.
- (xiv). PP proposed to allocate Rs. 1.39 Crores towards CER which shall be spent as submitted in CER plan for monitorable activities like up-gradation of

schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Internal roads shall be made pucca.
- (xvii). 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.
- (xviii). 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. 4**

**Expansion of Distillery 200 KLPD (140 KLPD Grain/Molasses & 60 KLPD Grain based) to 400 KLPD along with 3.0 MW to 8.5 MW Co-Generation Power Plant by new installation of 200 KLPD Grain based Distillery along with 5.5 MW Co-Generation Power Plant located at D-192 to D-195, MIDC Shendra Five Star Industrial Area, Tehsil & District Aurangabad, Maharashtra by M/s Radico NV Distilleries Maharashtra Limited-Consideration of Environment Clearance [IA/MH/IND2/271149/2014, J-11011/137/2014-IA II (I)]**

The Project Proponent and the accredited Consultant M/s. J.M. EnviroNetPvt. Ltd. made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for

expansion of Distillery 200 KLPD (140 KLPD Grain/Molasses & 60 KLPD Grain based) to 400 KLPD along with 3.0 MW to 8.5 MW Co-Generation Power Plant by new installation of 200 KLPD Grain based Distillery along with 5.5 MW Co-Generation Power Plant located at D-192 to D-195, MIDC Shendra Five Star Industrial Area, Tehsil & District Aurangabad, Maharashtra by M/s Radico NV Distilleries Maharashtra Limited.

All distillery projects 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).

The details of products and capacity as under:

<b>S. No.</b>	<b>Name of unit</b>	<b>Name of the product/by-product</b>	<b>Existing</b>	<b>Proposed</b>	<b>Total</b>
1	Molasses/grain based distillery plant	Ethanol /Rectified spirit/ENA	140 KLPD	-	140 KLPD
2	Grain based distillery	Ethanol /Rectified spirit/ENA	60 KLPD	200 KLPD	260 KLPD
3	Co-generation power plant	Power	3.0 MW	5.5 MW	8.5 MW
4	DWGS dryer	DDGS	127 TPD	127 TPD	254 TPD
5	Fermentation unit	Carbon di-oxide	147 TPD	147 TPD	294 TPD

Ministry has issued Environmental Clearance to existing plant vide F. No. J-11011/137/2014-IA II (I) dated 25<sup>th</sup> June, 2015 for Expansion of grain/molasses based distillery (from 120 KLPD to 140 KLPD) & F. No. J-11011/233/2009-IA II (I) dated 16<sup>th</sup> November, 2009 for 60 KLPD Grain based Unit-II. Certified Compliance Report has been issued by Regional Office, MoEFCC, Nagpur for both the ECs for existing operational 140 KLPD Molasses/Grain based distillery & 60 KLPD Grain based Distillery along with 3.0 MW Co-Generation Power Plant vide F. No. 5- 24/2014 (ENV)/9208 dated 31.01.2022. Certified action taken report has also been obtained dated 23<sup>rd</sup> May, 2022 from IRO,MOEFCC. PP committed that partial non-compliance will be implemented in time bound manner. EAC was satisfied with the response of PP.

Standard Terms of Reference have been obtained dated 09<sup>th</sup> September, 2021. Public Hearing for the proposed project had been conducted by the

State Pollution Control Board on 14<sup>th</sup> March, 2022 at project site chaired by District Magistrate, Aurangabad. The main issues raised during the public hearing and their action plan as reported by PP is as under :

**Regarding employment opportunities**, as a part of expansion project, 120 persons will be additionally employed and 200 persons (temporary and permanent both) will be employed during construction phase. Also, job opportunity in the project as an Apprentice under skill development will be given to Projected Affected Person based on qualification merits. As a part of CER, Rs 20 lakhs has been allocated over a span of 2 years for skill development activities. **Regarding Purchase of raw materials from farmers & associated benefits**, the company will be purchasing the additional raw materials required for expansion considering Minimum Support Price (MSP), DDGS will be sold which will help dairy business. **Regarding plantation in nearby villages**, avenue tree plantation will be done for nearby villages for which Rs. 15 Lakhs has been allocated over a span of 2 years. EMP Budget allocated for Greenbelt Development in Village Panchayat Land is Rs. 0.4 Crores as capital cost & Rs. 0.06 Crores/annum as Recurring cost. **Regarding air pollution control measures**, proposed 45 TPH boiler will be provided with ESP and CEMS will be installed. **Regarding water pollution**, plant is being/will be based on ZLD, budget allocated for CPU/ETP is Rs. 6.0 Crores as capital cost & Rs. 1.5 Lakhs/annum as Recurring cost. **Regarding run off generated during rainy season**, rainwater is being/will be collected in a reservoir covering 2 acres land with dam inside plant premises for collection of runoff generated from catchment area of hills and the water is being/will be reused in plant activities. For collection of runoff inside the plant premises, underground tank will be constructed.

Total existing plant area is 37.64 Hectares. No additional land will be acquired for the expansion project as the same will be done within existing plant premises. Out of the total plant area 12.4 Hectares i.e. 33% of the total plant area is already developed under greenbelt & plantation in and around plant premises and as a part of expansion project, greenbelt will be densified. The estimated project cost is Rs. 216.5 Crores. Capital cost of EMP would be Rs. 13.0 Crores and recurring cost for EMP would be Rs. 2.81 Crores per annum. Industry proposes to allocate Rs. 3.0 Crores towards Corporate Environment Responsibility. Total Employment after expansion will be 502 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Some patches of unnamed Reserved Forests (RF) are present only. Water bodies such as River–Lahuki River at a distance of 4.0 km in North direction, Sukna Nadi at a distance of 7.0 km in SW direction, Chitle Nadi at

a distance of 9.5 km in South direction, Bori Nadi at a distance of 4.0 km in SW direction; Reservoir- Lahuki Reservoir at a distance of 4.5 km in ENE direction, Sukna Reservoir at a distance of 6.5 km in South direction; Canal- Sukna Main Canal at a distance of 9.5 km in South direction.

Ambient air quality monitoring was carried out at 8 locations during 01.03.2021 to 31.05.2021 and the baseline data indicates the ranges of average concentrations as: PM<sub>10</sub> (48.9-89.7 µg/m<sup>3</sup>), PM<sub>2.5</sub> (24.5-49.7 µg/m<sup>3</sup>), SO<sub>2</sub> (5.47-13.06 µg/m<sup>3</sup>) and NO<sub>2</sub> (10.87 -30.15 µg/m<sup>3</sup>). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.5 µg/m<sup>3</sup>, 0.77 µg/m<sup>3</sup> and 0.89 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Existing freshwater requirement for the 200 KLPD distillery is 1540 KLPD (1120 KLPD for 140 KLPD Molasses based operations + 420 KLPD for 60 KLPD Grain based operations). Additional requirement of freshwater for proposed Grain based distillery will be 1200 KLPD. Hence, the total fresh water requirement will be 2740 KLPD which will be sourced from Maharashtra Industrial Development Corporation (MIDC). Effluent of quantity 3116 m<sup>3</sup>/day will be treated through Condensate Polishing Unit (3500 m<sup>3</sup>/day). During Molasses based operations, spent wash generated from the analyser column during distillation is being/will be anaerobically treated in Bio-methanation plant and concentrated in six staged Multi - Effect Evaporator (MEE). Concentrated spent wash is being/will be mixed with press mud, boiler ash and yeast sludge and used for bio composting. During Grain based operations, raw stillage is being/will be sent to decanter followed by MEE followed by dryer to produce DDGS. Domestic waste water is being/will be treated in STP. The plant will be based on Zero Liquid discharge system.

Total power requirement after expansion will be 6.685 MW which will be sourced from existing 3 MW & proposed 5.5 MW co-generation power plant. Existing unit has 30 TPH bagasse/biogas fired boiler. After expansion, 45 TPH biomass fired boiler will be installed. ESP with a stack of height of 50 m is installed with the existing boiler and ESP with a stack height of 61 m will be installed with the proposed boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. Existing unit has 2 x1000 KVA & 750 KVA DG set (stack height 7m ARL) and after expansion 2x1500 KVA DG set will be installed to be used as standby during power failure and stack height (8m ARL) will be provided as per CPCB norms to the proposed DG sets.

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

- ESP with a stack of height of 50 m is installed with the existing boiler and ESP with a stack height of 61 m will be installed with the proposed boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- Carbon di-oxide(294 TPD) generated during the fermentation process is being/will be collected by utilizing CO2 scrubbers and sold to authorized vendors.

### **Details of solid waste/Hazardous waste generation and its management**

- DDGS (Distilled Dried Grains Stillage) (254 TPD) is being/will be sold as cattle feed / fish feed / prawn feed.
- Concentrated spent wash during Molasses based operation of distillery is being/will be mixed with press mud and used for bio composting.
- Boiler Ash (50 TPD) generated from the boiler is being/will be used for bio-composting or supplied to brick manufacturers.
- Used oil (2.0 KL/annum) is being/will be sold to authorized recyclers.
- CPU Sludge is being/will be mixed with press mud and used for bio-composting.

During deliberations EAC discussed following issues:

- Action plan for greenbelt development @ 2500 trees per hectares and commitment that it shall be completed within 6 months i.e. in upcoming monsoon.
- Bio-composting shall be stopped phase-wise within 3 years for existing molasses based operation.
- Commitment that in case of unavailability of biomass only coal shall be used.
- Garland drains, impervious tanks shall be provided as indicated during public hearing issues related to run off water.
- Revised Corporate Environment Responsibility details including no. of persons involved for skill development.
- Commitment to develop bagasse storage yard instead of covering with tarpaulin.
- Explore possibility for developing brick manufacturing unit within the premises so that no ash transportation is carried out outside premises. Ash shall be properly stored in silos and transported in covered trucks.



Committee was satisfied with the response of project proponent. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

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 directed that the project proponent will treat and use the treated water within the industry. 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 and to compliance of terms and conditions as under, and general terms of conditions at Annexure: -

- (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). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iii). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from MIDC. Prior permission shall be obtained for ground water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (iv). During molasses based operation, spent wash shall be bio-methanated and used in bio-composting and during grain based operation, spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. Bio-composting shall be stopped phase wise within 3 years. ESP shall be installed with the boiler. Ash is being/will be supplied to brick manufacturers and PP shall explore installation of brick manufacturing unit within/outside premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power.
- (v). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vi). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

- (viii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (ix). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (x). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area @ 2500 trees per hectares, 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. Greenbelt shall be developed before commissioning of the plant. Greenbelt development @ 2500 trees per hectares shall be completed within 6 months i.e. in upcoming monsoon.
- (xii). PP proposed to allocate Rs. 3.0 Crores towards CER which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply, skill development for 20 persons each year of nearby villages etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xiii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.

- (xiv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Internal roads shall be made pucca. Covered bagasse storage yard shall be constructed.
- (xv). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

#### **Agenda No. 5**

**Expansion of Carbon Black Manufacturing Facility from 1.38 LTPA to 1.65 LTPA (19.56%) with existing Captive Power Plant (CPP) 40 MW under para 7 (ii) at Survey nos. 470, 471, 539/1, 539/2, 541, 543, 544/1, 547, 548/1, 548/2, 551, 552, 553, 555, 556/1, 556/2, 558, 559, 560/1, 560/2, 560/3, 560/4, 562, 563/1, 563/2, 564, 566, 567/1/2, 567/1/3, 567/2, 568/1, 568/2, 568/3, 741/1/28, 540/1, 542/1, 542/2, 545/1, 545/2, 546, 554, 567/1/1, 567/1/1/1, 741/3, 544/2, 565 of Village-Paddhar, Taluka-Bhuj, District-Kutch, Gujarat- 370 105 by M/s Balkrishna Industries Limited – Re-consideration of Environmental Clearance under para 7(ii)a as per OM dated 11<sup>th</sup> April, 2022**

**[IA/GJ/IND2/244957/2021;J-11011/162/2017-IA-II(I)]**

The Project Proponent and the accredited consultant M/s Perfact Envirosolutions Pvt. Ltd. (PESPL) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for Expansion of Carbon Black Manufacturing Facility from 1.38 LTPA to 1.65 LTPA (19.56%) with existing Captive Power Plant (CPP) 40 MW under para 7(ii) at survey nos. 470, 471, 539/1, 539/2, 541, 543, 544/1, 547, 548/1, 548/2, 551, 552, 553, 555, 556/1, 556/2, 558, 559, 560/1, 560/2, 560/3, 560/4, 562, 563/1, 563/2, 564, 566, 567/1/2, 567/1/3, 567/2, 568/1, 568/2, 568/3, 741/1/28, 540/1, 542/1, 542/2, 545/1, 545/2, 546, 554, 567/1/1, 567/1/1/1, 741/3, 544/2, 565 of Village - Paddhar, Taluka-Bhuj, District-Kutch, Gujarat by M/s Balkrishna Industries Limited.

All Petrochemical based processing (processes other than cracking & reformation and not covered under the complexes) and thermal power plants are listed at S.No 5(e) and 1(d) respectively of Environment Impact Assessment (EIA) Notification 2006 and as the proposed project is located outside the notified industrial area/estate the project is under category 'A' and to be appraised at Central Level by Expert Appraisal Committee (EAC).

The proposal was considered earlier by the EAC Ind-2 in its 51<sup>st</sup> meeting held on 23-25<sup>th</sup> February, 2022 wherein EAC recommended the proposal under para 7(ii) after detailed deliberations. Subsequently, Ministry examined the proposal and found certain information to be inadequate as expansion is almost to the tune of 50%, hence, it was suggested to reconsider the proposal and recommendations of EAC. Again, the case was placed in 03<sup>rd</sup> EAC meeting held during 12<sup>th</sup>- 13<sup>th</sup> April, 2022 for re-consideration. After detailed deliberations and the justification given by PP as above, EAC agreed and considered the case under para 7(ii).

Further, PP withdrew the earlier TOR and informed against the ADS raised that there is increase in pollution load and also proposed to do capacity enhancement in three phases as per OM dated 11<sup>th</sup> April, 2022. In view of above, file was put up for consideration of instant proposal phase wise. Hence, Ministry directed to place this proposal again as per OM dated 11<sup>th</sup> April, 2022 for 20% expansion to ascertain its eligibility and further consideration.

Proposed expansion will be done in three phases, this proposal is for the first phase i.e. 19.56% within 20% of the PH approved capacity. Under Phase I, Proposed expansion from 1.38 LTPA Carbon Black Manufacturing to 1.65 LTPA and power generation remains the same 40 MW through debottlenecking in the existing process, modernisation of the equipment, change in raw material mix, substitution of fuel and through addition of carbon black manufacturing lines to increase production with minimal load on environment in a sustainable manner. The increase has been done in a way that the plant operation becomes safer, there is more redundancy at the utility end and there is reduction in downtime of the carbon plant through the addition of production lines. Better environment management and overall sustainability is proposed through engineering interventions in pollution control like proposed Flue Gas Desulphurisation, Use of LPG in place of fuel oil for new production line, efficient waste heat recovery boilers, optimal use of off gas power generation and installation of compatible tyre plant manufacturing activity to use extracted steam and waste steam.

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

Product	Unit	Capacity as per existing EC	Proposed additional capacity under para 7(ii) as per OM No. IA3-22/10/2022/IA.III(E 177258) dated 11 April 2022	
			Expansion of additional capacity	Total after expansion
<b>Carbon Black Plant</b>	TPM /LT PA	11500 TPM (1.38 LTPA)	2250 TPM (0.27 LTPA)	13750 TPM 1.65 LTPA (19.56% expansion from existing capacity)
<b>Power Plant</b>	MW	40	0	0

The Standard TOR (Terms of Reference) and Public Hearing is not applicable as the proposal is for Expansion under Para 7(ii) as per OM dated 11<sup>th</sup> April 2022 under Scenario II (expansion proposals of up to 20% from the EC capacity). As informed by PP, litigation is pending against the proposal as given below:

### **About the appeal**

Appeal filed in February 2018 praying for quash of EC issued by MoEF&CC dated 08<sup>th</sup> Jan 2018 on the grounds that **the public hearing dated 26.09.2017 was not conducted as per the requisite procedure and the procedures for issuing EC was not properly followed by MOEF&CC.**

### **Court Proceeding Chronology**

On request of the applicant, the appeal filed at NGT Western Bench Pune in February 2018 was transferred to NGT principal bench New Delhi in March 2018 and the last proceeding was conducted on 31<sup>st</sup> May 2018.

### **Detail of Last Proceeding dated 31<sup>st</sup> May 2018 (Principal Bench)**

All Respondents sought time for filing replies and granted two weeks time to file their respective replies.

Applicant requested for transfer of case to NGT Western Bench Pune, which was permitted by Principal Bench.

Accordingly, the case was transferred and listed in NGT Western Bench Pune.

### **Current Status**

Since 31<sup>st</sup> May 2018, the matter has not been heard by NGT Western Bench Pune and it is getting adjourned from time to time. As per the latest causes list, the next date given is **27<sup>th</sup> July 2022** by the NGT, Western Bench, Pune. No Stay / Interim Relief is granted either by the Principal Bench, New Delhi or by the Western Bench, Pune till date.

### Proceeding Details and Summary of NGT Orders

Hearing Date	Order of Tribunal (Principal Bench)	Remarks
08-03-2018	<p>Heard M.A No 275 of 2018.</p> <p>Considering the circumstances explained and the fact that the Western Zone Bench is presently not functional, the request for transfer of Appeal No 29 of 2018 from the file of the Western Zonal Bench of Pune to Principal Bench is granted. Learned counsel for the applicant submitted no date has been given by Western Zonal Bench in the said case hence let it be listed on 9th April 2018 and Applicant is directed to intimate the next date of hearing to the Respondents. Registry is directed to secure the file and intimate the next date of hearing to Western Zonal Bench.</p> <p>M.A.No 275 of 2018 is disposed of with no order as to costs.</p>	<p>Applicant requested for <b>transfer of Appeal</b> from NGT Pune Bench to Principal Bench New Delhi.</p> <p><b>This request was accepted by the NGT Principal Bench.</b></p>
14-03-2018	<p>None appeared.</p> <p>The matter is adjourned to 12th April 2018</p>	Nil
09-04-2018	<p>Await records. Registry is directed to secure by the next date.</p> <p>List it on 09th May ,2018.</p>	Nil

12-04-2018	<p>The Learned counsel appearing for the applicant at whose instant case is transferred from Western Bench, Pune to Principal Bench, New Delhi is absent.</p> <p>The applicant is directed to produce two more sets of copies of the case papers sufficient to the member of the Bench within two weeks from now.</p> <p>List it on 14th May, 2018.</p>	Nil
09-05-2018	<p>Ms. Sadiya Rohma Khan appears for the Appellant and submits there is urgency in the matter needing grant of interim order. However ,we notice from the record this case was transferred from Western Zonal Bench on the request made by the appellant expressing urgency but our order directing furnishing two more sets of case papers due to composition of larger number of Hon'ble Members of the Bench has not complied with.</p> <p>There is no interlocutory application seeking interim relief. Be that as it may, we permit the Appellant to take required steps if the Appellant so desires. List this matter on 14th may,2018 the date which is granted .if the steps are not taken as mentioned afore-said the case shall stand transferred back to the jurisdictional Western zonal Bench where the Appeal originally filed.</p> <p>Appellant is directed to furnish copies of the Appeal memo to the Respondents.</p>	Nil



14-05-2018	<p>On behalf of Respondent No.2 time is sought for filing a reply. The Learned counsel on behalf of the Ministry of Environment, Forest and Climate Change takes Notice and seeks time for filing a reply. Respondent No.3 and 4 are not represented. The applicant counsel submits that they have duly served with the Notice. Post it for the appearance of Respondent No.3 and 4 and for reply of Respondent No.1 and 2 on 31st May, 2018.</p> <p>Later on the Learned Counsel Mr.Dhruv Pal appears for State of Gujarat and State Pollution Control Board submits that he will duly inform the learned counsel on record representing the State of Gujarat.</p> <p><b>The request on behalf of appellant to permit them for filing of application for grant of interim relief is granted. List this case on 31st May, 2018.</b></p>	Respondent No 2 i.e Balkrishna Industries Ltd seeks time for filing reply.
31-05-2018	<p>The applicant's counsel is present. On behalf of Respondent No.2 time is sought for filing the reply. So also requested by Respondent No.1,3 and 4. All are granted two weeks time to file their replies, failing which they will be liable to pay cost.</p> <p>Request on behalf of the learned Counsel appearing for the applicant the case may be transferred back to Western Zonal Bench at Pune which is not opposed by the respondents.</p> <p>List it for further proceedings on 24th July, 2018 at Pune.</p>	<p>All Respondents sought time for filing a reply. All are granted two week time to file their replies.</p> <p><b>Applicant requested for transfer of case to Western Zonal Bench Pune, which is permitted by Principal Bench.</b></p>

EAC noted the information provided regarding litigation pending and decided to frame condition for the same.

The Ministry had issued Environmental Clearance earlier for addition of Carbon Black manufacturing facility vide letter no. F. No. J-11011/162/2017-IA II (I) dated 08.01.2018 that was taken and amended on 20.05.2019 in respect of survey Nos., greenbelt area and raw material storage. To utilise the residual Off Gas generating during the Carbon Black manufacturing process, for conversion into additional energy, a revision in combined Environmental Clearance vide letter No J-11011/162/2017-IAII(I) dated 15.10.2020 was taken to increase Power generation from 20 MW to 40 MW along with increase in Tyre production (Non-EC Product) from 1.2 LTPA to 1.8 LTPA and carbon black production remain unchanged. Certified compliance report has been obtained from MoEF&CC, RO Bhopal vide letter no 18-A-126/2012(SEAC)/891 dated 11-02-2021. There are no recorded non compliances/ partial compliances observed in the report. EAC found it satisfactory.

Existing land area is 121.256 Hectares and proposed expansion will be done on the same land area only. Out of total plant area, greenbelt has already been developed in an area of 34.03 % i.e. 41.2637 Hectares. The total estimated project cost is Rs. 4338 Crores including existing investment of Rs. 4188 Crores and proposed Rs.150 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 106 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1.94 Crores per annum. Total Employment will be 5700 persons as direct & indirect after expansion. Industry proposes to allocate Rs. 3.0 Crores towards Corporate Environment Responsibility (CER).

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Sang Nadi is flowing at a distance of 2.88 km in East direction.

Baseline studies were not conducted as part of this proposal as expansion is being proposed under para 7(ii)(a).

Total fresh water requirement is 4515 m<sup>3</sup>/day (increasing by 465 m<sup>3</sup>/day from existing 4050 m<sup>3</sup>/day) which will be met from Gujarat Water Infrastructure Limited (GWIL) and CGWB approved borewell. After expansion, industrial Effluent generation will be increased to 1742 m<sup>3</sup>/day from existing 1317 m<sup>3</sup>/day, which will be treated through ETPs of combined capacity 2610 m<sup>3</sup>/day followed by RO and MEE. The treated industrial effluent will be recycled for industrial purposes. The plant will be based on the Zero Liquid discharge system. Domestic Sewage (590 m<sup>3</sup>/day) quantity will be treated through STPs of combined capacity 600 m<sup>3</sup>/day and treated

sewage will be utilised for domestic, flushing, plantation and greenbelt purposes.

Power requirement after expansion will be 43 MW including existing 33.5 MW, proposed to be supplied by PGVCL (Sanctioned load- 9.5 MW) and Co-generation power plant of capacity 40 MW. Existing unit has approval for Boilers of capacity 2 x 66 TPH (Coal), 1 x 95 TPH (Off Gas), 1 x 45 TPH (Off Gas), 2 x 20 TPH (Coal based process boilers for tyre plant). After proposed expansion, 110 TPH boiler based on Offgas shall be installed and the existing 45 TPH off gas boiler shall be upgraded to 66 TPH. Electrostatic Precipitators (ESP) with lime dosing are already installed with coal based 2 x 66 TPH boilers while ESP is installed on 2 x 20 TPH coal based process boilers. After proposed expansion, requisite engineering control systems such as Flue Gas Desulphurisation unit (FGD) shall be installed for off gas based boilers which will result in reduction of net SO<sub>x</sub> and net PM emission. Low NO<sub>x</sub> burner to be fitted in existing approved 95 TPH and upgraded 66 TPH off gas boiler that results in reduction in net NO<sub>x</sub> emission. There will be no change in the DG set capacity in the proposed expansion, existing DG sets will remain on standby. Stack (height 11 m for all DG sets) will be provided as per CPCB norms. Existing unit has 1 MW Solar Photovoltaic (PV) plant which will be expanded up to 6 MW plant which will meet 15% of the expansion load.

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

Technical Specifications of the Stack						Details of Air Pollution Control System (APCS)		Stack design	
S n	Machinery	Steam Capacity	Unit	Fuel	Status (Existing/proposed)	Existing	Proposed	Dia (m)	Height (m)
1	Boiler 1	66	TPH	Coal	Existing	ESP with Lime	No Change	3.5	84
2	Boiler 2	66	TPH	Coal	Existing	ESP with Lime	No Change	3.5	84
3	Boiler 3	95	TPH	Off Gas	Existing	-	FGD	6.3	105
4	Boiler 4	20	TPH	Coal	Existing	ESP	No Change	1.2	40
5	Boiler 5	20	TPH	Coal	Existing	ESP	No Change	1.2	40

6	Coal Crusher	80	TPH	Coal	Existing	Bag Filter	No Change	1.2	30
7	Dryer System Line 1 & 2	15	TPH	Off Gas	Existing	-	-	1.7	50
8	Dryer System Line 3	10	TPH	Off Gas	Existing	-	-	1.5	50
9	Boiler 6	45	TPH	Off Gas	Existing - To be Upgraded to 66 TPH	-	FGD	6.8	120
10	Boiler 7	110	TPH	Off Gas	Proposed	-	FGD		
11	Dryer System Line 4 & 5	6.1	TPH	Off Gas	Proposed	-	-	1.2	50

**Details of Solid waste/ Hazardous waste generation and its management is given below:-**

**Solid Waste Management:**

Category	Type of Waste	Treatment method	Total after expansion
Biodegradable	Organic Waste	Disposed for treatment in Organic Waste Converter to get converted to manure and the same will be followed after expansion	2154 kg/day(786 TPA)
Non-Biodegradable	Recyclable Waste	Sent to authorised recyclers	1436 kg/day(524 TPA)
<b>Total</b>			<b>3590 kg/day(1310 TPA)</b>

**Hazardous Waste Management:**

Name	HWM Rules 2016, Category	Quantity (TPA)			Source	Method of Collection and Disposal
		Existing	Proposed	After expansion		
Residues from Treatment of Effluent	35.3	610	300	910	ETP	TSDF
MEE Residue	35.3	900	60	960	MEE	TSDF
Oily Cotton Waste	33.2	7	1	8	All plant	TSDF
Spend / Used Oil	5.1	421	141	280	All plant	Sent to registered recycler
Discarded Container, Barrel & Drum	33.1	425	65	360	All plant	Sent to registered recycler
<b>Total</b>	<b>-</b>	<b>2363</b>	<b>155</b>	<b>2518</b>		

**Comparison of Pollution Load**

Parameters	Unit	Existing	Additional	Total
<b>Fresh Water</b>	KLD	4050	465	4515
<b>Waste Water</b>	KLD	1317	425	1742
<b>Hazardous waste</b>	TPA	2363	155	2518
<b>Solid waste</b>	TPA	3550	40	3590

**Off Gas Combustion Emissions**

Parameters	Capacity as per existing EC (Kg/Hr)	Proposed additional capacity under para 7(ii) as per OM No. IA3-22/10/2022/IA.III(E 177258) dated 11 <sup>th</sup> April 2022

		<b>Pollution Load in Kg/Hr</b>	<b>% change in total</b>
PM	24	18	-25 %
NO <sub>x</sub>	145	130	-10.3 %
SO <sub>x</sub>	292	242	-17.1 %

During deliberations EAC discussed the following issues:

- Details regarding earlier public hearing issues raised during existing project. Hence, EAC suggested PP to spend complete CER cost proposed for this project before commencement of operations.
- Commitment that Carbon Black Feed Stock (CBFS) shall have maximum Sulphur content of 2.5% only for production of Carbon Black.
- Details of membership for TSDF site. Storage of hazardous waste shall be maximum for 90 days only.
- Occupational health centre shall be further renovated with latest technologies. Rs. 2.0 Crores shall be expended annually on employees.
- 20 m wide Greenbelt shall be developed towards forest side.

Committee was satisfied with the response of project proponent. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

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

The Committee noted that the EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be

addressing the issues in the study area. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

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: -

- (i). The project proponent shall abide by all orders and judicial pronouncements, made from time to time in the case pending at NGT Western Zonal Bench Pune.
- (ii). Carbon Black Feed Stock (CBFS) shall have maximum Sulphur content of 2.5% only for production of Carbon Black.
- (iii). 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.
- (iv). Flue Gas Desulphurisation unit (FGD) shall be installed for off gas based boilers which will result in reduction of net SO<sub>x</sub> and net PM emission. As proposed, Low NO<sub>x</sub> burner shall be fitted in existing approved 95 TPH and upgraded 66 TPH off gas boiler.
- (v). Total fresh water requirement is 4515 m<sup>3</sup>/day which will be met from Gujarat Water Infrastructure Limited (GWIL) and CGWB approved borewell. Necessary permission in this regard shall be obtained from the concerned regulatory authority. The project proponent will treat and reuse the treated water within the factory for process and cooling

make up and no waste or treated water shall be discharged outside the premises.

- (vi). Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEF&CC. Outcome from the report to be implemented for conservation scheme.
- (vii). Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- (viii). Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps. Storage of hazardous waste shall be maximum for 90 days only.
- (ix). Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
- (x). Regular VOC monitoring shall be done at vulnerable points.
- (xi). The oily sludge shall be subjected to melting pit for oil recovery and the residue shall be bio-remediated. The sludge shall be stored in HDPE lined pit with proper leachate collection system.
- (xii). Oil catchers/oil traps shall be provided at all possible locations in rain/storm water drainage system inside the factory premises.
- (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 cleaning etc. to reduce wastewater generation.
- (xiv). The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. 20 m wide greenbelt development shall be done towards forest as reported.



- (xv). 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 cost earmarked towards CER i.e. Rs. 3.0 Crores shall be invested before commencement of operations.
- (xvi). The project proponent shall ensure 70% of the employment to the local people, as per the applicable law. The project proponent shall set up a skill development centre/provide skill development training to village people.
- (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.
- (xviii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
- (xix). 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. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.
- (xx). PP shall allocate at least Rs. 2.0 Crores/annum for Occupational Health Safety. PP to introduce advanced occupational health Centre for surveillance of the worker's health within and outside the plant on a regular basis. 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.
- (xxi). The National Emission Standards for Petrochemical (Basic & Intermediates) issued by the Ministry vide G.S.R. 820 (E) dated 9<sup>th</sup> November, 2012 as amended time to time shall be followed.
- (xxii). Recommendations of mitigation measures from possible accident shall be implemented based on advanced risk Assessment studies conducted for worst case scenarios using latest techniques.

## **Agenda No. 6**

### **100 KLD Grain Based Ethanol Plant along with 3.2 MW Co-generation Power Plant at Village- Binodpur, Tehsil- Athamallik, District-Angul, Odisha by M/s Newalt Energy Private Limited-Consideration of Environment Clearance**

**[IA/OR/IND2/273378/2022 , IA-J11011/186/20 22-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Grass Roots Research & Creation India (P) Ltd. made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for proposed grain based distillery 100 KLPD and 3.2 MW co-generation power plant (biomass) at Village-Binodpur, Tehsil- Athamallik, District-Angul, Odisha by M/s. Newalt Energy Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

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

<b>S. No.</b>	<b>Name of unit</b>	<b>Name of the product/by-product</b>	<b>Production capacity</b>
1	Distillery plant	Ethanol	100 KLPD
2	Co-generation power plant	Power	3.2 MW
3	DWGS dryer	DDGS	55 TPD
4	Fermentation unit	Carbon di-oxide	43 TPD

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

Total land area required is 10.11 hectares. Greenbelt will be developed in total area of 3.34 hectares i.e., 33.04% of total project area. The estimated project cost is Rs. 125.0 Crores. Capital cost of EMP would be Rs. 10.70 Crores and recurring cost for EMP would be Rs. 2.18 Crores per annum. Industry proposes to allocate Rs. 1.25 Crores towards Corporate Environment Responsibility. Total Employment will be 150 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. West Barni Forest is at a distance of 0.15 km. Mahanadi River is at a distance of 2.5 km towards South West direction and Salki Nadi is at a distance of 8 km towards South West.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.01 $\mu$ g/m<sup>3</sup>, 0.01 $\mu$ g/m<sup>3</sup>, 0.09 $\mu$ g/m<sup>3</sup> and 0.31 $\mu$ g/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).

Total fresh water requirement will be 574 m<sup>3</sup>/day (400 m<sup>3</sup>/day for distillery unit and 174 m<sup>3</sup>/day for co-generation power plant & domestic purposes) which will be met from surface water from Mahanadi River. PP informed that copy of permission has been obtained. However, PP confirmed that no ground water will be extracted. Effluent of 439 m<sup>3</sup>/day quantity will be treated through Condensate Polishing Unit (527 m<sup>3</sup>/day). Raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS. The plant will be based on Zero Liquid discharge system. STP will be installed for treatment of sewage generated from factory premises.

Power requirement will be 3.2 MW and will be met from proposed 3.2 MW co-generation power plant. 27 TPH biomass fired boiler will be installed. ESP with a stack of height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed boiler. 2x500 KVA DG set will be used as standby during power failure and stack height (30 m) will be provided as per CPCB norms to the proposed DG sets.

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

- ESP with a stack height of 60 meters will be installed for controlling the particulate emissions.

- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO<sub>2</sub> generated during the fermentation process 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**

- DDGS (Distilled Dried Grains Stillage) (55 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (19040 TPA) will be utilized for brick manufacturing inside plant premises.
- Used oil (2.0 Kilolitres per annum) will be sold to authorized recyclers.
- CPU Sludge (20.09 tonnes per annum) will be disposed to authorized recyclers.

As per Notification S.O 2339(E), dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 100 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that land has been acquired and land use conversion application has been submitted to Office of the Tahasildar, Athamalik. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Land use conversion shall be obtained before commencement of construction.
- Permission for surface water has been obtained and PP shall submit the same.
- PP informed that no tributaries of Mahanadi River are present within project site.
- 20 m greenbelt development to be provided towards state highway, school, forest.
- NOC from concerned State Highway department shall be obtained before commencement of construction as located at a distance 150 m away.
- Deforestation shall not be carried out without permission of concerned department and effort shall be made to make it part of greenbelt, also, details related to cutting of trees and plantation to be done as compensation.
- Discussed action plan for remedial measures towards vulnerable groups.

Committee was satisfied with the response of project proponent. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

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

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

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: -

- (i). As per the Notification S.O. 2339(E), dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 100 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (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). State highway is present at 150 m from plant site. NOC from concerned department shall be obtained before commencement of construction activities.
- (iv). 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.
- (v). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of Land Use certificate shall be obtained before start of construction activities.
- (vi). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from surface water augmented with rainwater. Prior permission shall be obtained for surface water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vii). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Ash shall be utilized for making bricks in the proposed brick making unit. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of

biomass unavailability. PP shall meet 10% of the total power requirement from solar power.

- (viii). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (ix). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (x). 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.
- (xi). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (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 nearly 33% of the total project area @ 2500 trees per hectares, 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. Greenbelt shall be developed before commissioning of the plant. 20 m wide greenbelt development towards state highway, school, forest shall be done. Deforestation shall not be carried out without permission of concerned department and effort shall be made to make it part of greenbelt, also, details related to cutting of trees and plantation to be done as compensation.

- (xv). PP proposed to allocate Rs. 1.25 Crores towards CER which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvi). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xvii). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Internal roads shall be made pucca.
- (xviii). 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.
- (xix). 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.

**09<sup>th</sup> June, 2022 (Thursday)**

**Agenda No. 1**

**Proposed expansion of Distillery unit from 48 KLPD to 168 KLPD (using Sugar syrup/ B-Heavy molasses /grains as raw materials) located at Sankili Village, Regidi Amadalavalasa Mandal, Srikakulam District, Andhra Pradesh by M/s. E.I.D. Parry (India) Limited – Consideration of amendment in Environmental Clearance.**

**[IA/AP/IND2/269203/2022, J-11011/157/2003-IA-II (I)]**



The proposal is for amendment in the Environmental Clearance granted by Ministry vide letter number J-11011/157/2003-IA-II (I) dated 04<sup>th</sup> March, 2022 for Proposed expansion of Distillery unit from 48 KLPD to 168 KLPD (using Sugar syrup/ B-Heavy molasses /grains as raw materials) located at Sankili Village, Regidi Amadalavalasa Mandal, Srikakulam District, Andhra Pradesh by M/s. E.I.D. - Parry (India) Limited.

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

S r. No.	Para of EC issued by MoE F&C C	Details as per the EC	To be Revised / Read as																																				
1.	Para 8 (Table) Point 2	<table border="1" data-bbox="367 963 877 1359"> <thead> <tr> <th>S. No.</th> <th>Unit</th> <th>Product/By-product</th> <th>Existing capacity</th> <th>Expansion capacity</th> <th>After expansion capacity</th> </tr> </thead> <tbody> <tr> <td>2.</td> <td>Co-generation power plant</td> <td>Electricity</td> <td>16 MW</td> <td></td> <td>16 MW</td> </tr> <tr> <td>4.</td> <td>Power from incineration boilers</td> <td>Electricity</td> <td>1.06 MW</td> <td>-</td> <td>1.06 MW</td> </tr> </tbody> </table>	S. No.	Unit	Product/By-product	Existing capacity	Expansion capacity	After expansion capacity	2.	Co-generation power plant	Electricity	16 MW		16 MW	4.	Power from incineration boilers	Electricity	1.06 MW	-	1.06 MW	<table border="1" data-bbox="896 929 1406 1332"> <thead> <tr> <th>S. No.</th> <th>Unit</th> <th>Product/By-product</th> <th>Existing capacity</th> <th>Expansion capacity</th> <th>After expansion capacity</th> </tr> </thead> <tbody> <tr> <td>2.</td> <td>Co-generation power plant</td> <td>Electricity</td> <td>16 MW</td> <td>6 MW</td> <td>16 MW &amp; 6 MW</td> </tr> <tr> <td>4.</td> <td>Power from incineration boilers</td> <td>Electricity</td> <td>1.06 MW</td> <td>-</td> <td>1.06 MW</td> </tr> </tbody> </table>	S. No.	Unit	Product/By-product	Existing capacity	Expansion capacity	After expansion capacity	2.	Co-generation power plant	Electricity	16 MW	6 MW	16 MW & 6 MW	4.	Power from incineration boilers	Electricity	1.06 MW	-	1.06 MW
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4.	Power from incineration boilers	Electricity	1.06 MW	-	1.06 MW																																		
2.	Para 9	The estimated project cost for expansion project is Rs. 100 Crores.	The estimated project cost for expansion project is <b>Rs. 123 Crores.</b>																																				
3.	Para 11	Total water requirement is 1800 m <sup>3</sup> /day of which fresh water requirement of 610m <sup>3</sup> /day. The water drawl permission has been obtained from irrigation department Govt of Andhra Pradesh for 8,00,000 cubic yards/annum which is valid up to 18-05-2024. Existing permission is sufficient & no separate permission will be required.	Total water requirement is 1800 m <sup>3</sup> /day of which fresh water requirement of 610m <sup>3</sup> /day. <b>After expansion, total water requirement shall be reduced and 700 m<sup>3</sup>/day hot water from sugar plant shall be utilized to reduce the surface water consumption.</b> The water drawl permission has been obtained from irrigation department																																				

			Govt of Andhra Pradesh for 8,00,000 cubic yards/annum which is valid up to 18-05-2024. Existing permission is sufficient & no separate permission will be required.
4.	Para 12	Power requirement after expansion will be 3000 KVA including existing 2000 KVA and will be met from Captive power plant of 1.06 MW and Cogeneration power plant of 16 MW. Existing unit has 2 Nos of DG sets of 500 KVA & 1000 KVA of Capacity, additionally 1000 KVA DG sets are used as standby during power failure. Existing unit has 2 x35TPH Bagasse Fired Boilers, 10.5 TPH and 15 TPH Incineration boilers. ESP with a stack of height of 45 m has been installed for 2 x 35 TPH boilers for controlling the particulate emissions within the statutory limit of 100 mg/Nm <sup>3</sup> , ESP with a stack height of 40 m has been installed for 10.5 TPH to bring down the emissions within the statutory limit of 100 mg/Nm <sup>3</sup> and Bag filters with a stack of 51 m has been installed for 15 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm <sup>3</sup> . No additional boilers are proposed for the proposed expansion of Distillery unit from 48 KLD to 168 KLD	Power requirement after expansion will be 3000 KVA including existing 2000 KVA and will be met from Captive power plant of 1.06 MW and Cogeneration power plant of 16 MW <b>and 6 MW</b> . Existing unit has 2 Nos of DG sets of 500 KVA & 1000 KVA of Capacity, additionally 1000 KVA DG sets are used as standby during power failure. Existing unit has 2 x35TPH Bagasse Fired Boilers, 10.5 TPH and 15 TPH Incineration boilers. ESP with a stack of height of 45 m has been installed for 2 x 35 TPH boilers for controlling the particulate emissions within the statutory limit of 100 mg/Nm <sup>3</sup> , ESP with a stack height of 40 m has been installed for 10.5 TPH to bring down the emissions within the statutory limit of 100 mg/Nm <sup>3</sup> and Bag filters with a stack of 51 m has been installed for 15 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm <sup>3</sup> . <b>1 X 35 TPH bagasse/rice husk fired boiler is proposed. ESP with a stack height of 60m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>.</b>

5	Para 13	Point to be added under head "Details of process emissions generation and its management"	For proposed 35 TPH boiler, ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm <sup>3</sup> .			
6.	Para 14	Point to be added under head "Details of Solid waste/Hazardous waste generation and its management"	S. No	Waste /by-product	Quantity (TPD) after proposed expansion project	Proposed method of disposal
			1.	Ash from proposed 35 TPH boiler	36	Will be given to brick manufacturing units.

### Justification for amendment proposed

As per the latest notification of Andhra Pradesh, Nearby industries (Sri. Vijayarama Gajapathi Co-op Sugar Ltd, Bhimasingji, S.S. Korukonda, Vizianagaram, and M/s. NCS Sugar Limited, Latchayyapeta, Seethanagaram Mandal, Vizianagaram) were closed, and the state government has allotted those factory cane areas to PP for drawing of sugar cane and also to develop sugar cane. PP has received an official order from The Director of sugar and cane commissioner to draw entire cane from the above two factories for the season 2021-22. Steam from existing boilers is insufficient for the supply to the proposed expansion plant. Since there is an increasing demand for steam, PP is proposing to install 1 X 35 TPH boiler (6 MW co-generation power plant).

During deliberations, EAC discussed the following issues:

- 50 mg/Nm<sup>3</sup> shall be the prescribed standard for Particulate Matter emission.
- Revised GLC for proposed boiler of 35 TPH capacity.

Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

After deliberations, EAC **recommended** for amendment in EC as proposed by the project proponent. However, all other terms and conditions mentioned in EC vide letter J-11011/157/2003-IA-II (I) dated 04<sup>th</sup> March, 2022 shall remain unchanged. Following additional specific conditions are as follows:

- ESP with stack height of 60 m shall be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed 35 TPH boiler.

Prior EC para to be amended are given below:

i) Para 8 (Table) Point 2 shall be read as

<b>S.No.</b>	<b>Unit</b>	<b>Product/By-product</b>	<b>Existing capacity</b>	<b>Expansion capacity</b>	<b>After expansion capacity</b>
2.	Co-generation power plant	Electricity	16 MW	6 MW	16 MW & 6 MW
4.	Power from incineration boilers	Electricity	1.06 MW	-	1.06 MW

ii) Para 11 shall be updated as, "total water requirement is 1800 m<sup>3</sup> /day of which fresh water requirement of 610 m<sup>3</sup> /day. After expansion, total water requirement shall be reduced and 700 m<sup>3</sup>/day hot water from sugar plant shall be utilized to reduce the surface water consumption."

iii) Para 12 shall be updated as, "Power requirement after expansion will be 3000 KVA including existing 2000 KVA and will be met from Captive power plant of 1.06 MW and Cogeneration power plant of 16 MW and 6 MW. 1 X 35 TPH bagasse/rice husk fired boiler is proposed. ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>."

iv) Para 13 shall be updated as, " For proposed 35 TPH boiler, ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>."

v) Para 14 shall be updated as

<b>S.No.</b>	<b>Waste/by-product</b>	<b>Quantity (TPD) after proposed expansion project</b>	<b>Proposed method of disposal</b>
1.	Ash from proposed 35 TPH boiler	36	Will be given to brick manufacturing units.

Committee recommended above subject to the following conditions :

- (i) Due to above modifications, there will be no increase in the existing capacity of the industrial unit.
- (ii) All the pollution control measures to be taken by the proposed industry in order to avoid increase in the pollution level of the area.
- (iii) Pollution control measures shall provided in other boilers to achieve the particulate emission level upto 50 mg/Nm<sup>3</sup>.

### **Agenda No. 2**

**Expansion of sugar plant capacity from 10000 TCD to 15000 TCD and expansion of distillery to increase the production capacity of ethanol from existing 500 KLD to 750 KLD using multi stock raw material C/B Heavy molasses, sugarcane juice/syrup and grain and installation of captive power plant of 23.5 MWH capacity (15 MWH & 8.5 MWH) located at R.S. No. 367/1, Munoli Village, Saundatti Taluk, Belgaum District, Karnataka-591117 by M/s Shree Renuka Sugars Ltd., (Munoli Unit)**

**[IA/KA/IND2/25 6147/2022 , J11011/08/200 2-IA-II(I)]**

Project proponent has requested to withdraw the proposal due to change in project planning. Therefore, EAC has decided to return the proposal in present form.

**Accordingly, proposal was returned in present form.**

### **Agenda No. 3**

**Expansion of Grain based Distillery from 650 KLPD to 1320 KLPD & Co-generation Power Plant from 20 MW to 40 MW at Village Devadi,**

**Block Garhani, Anumandal Ara, District Bhojpur, Bihar by M/s Bihar Distillers & Bottlers Private Limited- Consideration of Environment Clearance**

**[IA/BR/IND2/274130/2012, J11011/98/201 2-IA II (I) ]**

The Project Proponent and the accredited Consultant M/s. J.M. EnviroNetPvt. Ltd. made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of Grain based Distillery from 650 KLPD to 1320 KLPD & Co-generation Power Plant from 20 MW to 40 MW at Village Devadi, Block Garhani, Anumandal Ara, District Bhojpur, Bihar by M/s Bihar Distillers & Bottlers Private Limited.

As per EIA Notification 2006 (Schedule 5 (g) Category A); however, as per in the MoEFCC Notification S.O. 345(E), dated the 17th January, 2019, notification number S.O. 750(E), dated the 17th February, 2020, S.O. 980 (E) dated 02nd March, 2021 & S. No. 2339(E) 16th June, 2021, a special provision in the EIA Notification, 2006 "Expansion of sugar manufacturing units or distilleries for production of ethanol, having Prior Environment Clearance (EC) for existing unit, to be used completely for Ethanol Blended Petrol (EBP) Programme only, as per self-certification in form of an affidavit by the Project Proponent, shall be appraised as category 'B2' projects.

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

<b>Units</b>	<b>Product/ By Product</b>	<b>Existing Operational Capacity</b>	<b>Additional Capacity</b>	<b>Total Capacity after Proposed Expansion</b>	<b>Remark</b>
Grain based Distillery	Capacity	650 KLPD	670 KLPD	1320 KLPD	Additional increased 670 KLPD capacity will be Ethanol only
	Product	400 KLPD Ethanol and 250 KLPD Rectified Spirit/ Extra Neutral Alcohol/	Ethanol	1070 KLPD Ethanol & 250 KLPD Rectified Spirit/ Extra Neutral	

		Impure Spirit/ DS/SDS/ Fusel oil		Alcohol/ Impure Spirit/ DS/SDS/ Fusel oil	
	By Product Animal Feed Supplement (AFS)	275 TPD	280 TPD	555 TPD	-
	By Product CO2	455 TPD	470 TPD	925 TPD	-
Co-generation Power Plant	Power	20 MW	20 MW	40 MW	-

Ministry has issued Environmental Clearance for 660 KLPD Grain based plant & 20 MW Co-generation Power Plant at Village Devadi, Block Garhani, Anumandal Ara, District Bhojpur (Bihar) vide letter no. J-11011/98/2012-IA II (I) dated 1<sup>st</sup> May 2014 & validity of EC extension was issued on 6<sup>th</sup> May, 2021 and extended till 30<sup>th</sup> April, 2024 in favour of M/s. Bihar Distillers & Bottlers Private Limited. The company is operational at 650 KLPD capacity. Certified Compliance report of Existing EC has been obtained from Regional Office, MoEFCC, Ranchi vide letter no. 105-107/13/EPE/124 dated 25.02.2022. Action taken report for partially complied conditions has been submitted dated 28<sup>th</sup> April, 2022 to IRO, MOEFCC. EAC found it satisfactory.

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

Total existing plant area is 18.21 Hectares. No additional land is required for the expansion project as the same will be done within existing plant premises. Out of the total plant area 6.01 Hectares i.e. 33% of the total plant area is already developed under greenbelt & plantation in and around plant premises. The estimated project cost is Rs. 248.0 Crores. Capital cost of EMP would be Rs. 79.95 Crores and recurring cost for EMP would be Rs. 1.12 Crores per annum. Industry proposes to allocate Rs. 5.0 Crores towards Corporate Environment Responsibility. Total Employment after expansion will be 500 persons as direct & indirect.

PP reported that there are no National Parks, Reserved Forests (RF) / Protected Forests (PF), Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km radius. Water bodies found within 10 km radius : Malar Nala is adjacent in West direction, Banas Nadi is at a distance of 2.0 km in NE direction, Katea Distributary is at a distance of 3.5 km in West direction, Kurmorhi Distributary is at a distance of 4.5 km in SSE direction, Gyanpura Distributary is at a distance of 8.0 km in NNW direction, Left Parallel Channel is at a distance of 8.5 km in ESE direction, Jaitpur Distributary is at a distance of 8.5 km in ESE direction and GangiNadiis at a distance of 9.5 km in NW direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.53 µg/m<sup>3</sup>, 0.21 µg/m<sup>3</sup>, 0.80 µg/m<sup>3</sup> and 0.97 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Existing fresh water requirement is 2972 KLPD and the additional fresh water requirement for expansion will be 3010 KLPD. Hence, the total fresh water requirement after expansion will be 5982 KLPD which will be sourced from groundwater. Effluent of quantity 1415 m<sup>3</sup>/day will be treated through Condensate Polishing Unit (1700 m<sup>3</sup>/day). Raw stillage is being/will be sent to decanter followed by MEE followed by dryer to produce DDGS. The plant will be based on Zero Liquid discharge system.

Total power requirement after expansion will be 24 MW which will be sourced from 40 MW co-generation power plant. Existing unit has 52, 95 & 6 TPH biomass fired boiler (after expansion 6 TPH boiler will be kept as standby to be used only during emergency). After expansion, 120 TPH biomass fired boiler will be installed. ESP with a stack of height of 55 m is installed with the existing boiler and ESP with a stack height of 60 m will be installed with the proposed boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. Existing unit has 1000 KVA DG set (stack height 6.5 m ARL) and after expansion 1250 KVA DG set will be installed to be used as standby during power failure and stack height (7 m ARL) will be provided as per CPCB norms to the proposed DG sets.

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

- ESP with a stack of height of 55 m is installed with the existing boiler and ESP with a stack height of 60 m will be installed with the proposed boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>.
- Online Continuous Emission Monitoring System is being/will be



installed with the stack and data will be transmitted to CPCB/SPCB servers.

- Carbon di-oxide (925 TPD) generated during the fermentation process is being/will be collected by utilizing CO2 scrubbers and sold to authorized vendors.

### **Details of solid waste/hazardous waste generation and its management**

- DDGS (Distilled Dried Grains Stillage) (555 TPD) is being/will be sold as cattle feed / fish feed / prawn feed.
- Boiler Ash (218 TPD) generated from the boiler is being/will be supplied to brick manufacturers.
- Used oil (2.5 KL/annum) is being/will be sold to authorized recyclers.
- CPU Sludge is being/will be used as manure.

As per Notification S.O 2339(E), dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 670 KLPD will be used for manufacturing fuel ethanol only.

During deliberations, PP showed Certified compliance report to EAC where 9 partial/non-compliances were observed which were major and important in nature. Hence, EAC decided to consider the case further when PP will submit closure report from IRO, MOEFCC, Ranchi and Action Taken Report as submitted by PP shall not be acceptable. Hence, EAC decided to defer the proposal. Further, EAC discussed following issues:

- Consolidated CTO for 650 KLPD shall be submitted.
- Water audit shall be done regularly in order to reduce fresh water requirement.
- Time bound action plan for Construction of covered shed with wind barriers for rice husk storage shall be done.
- Time bound action plan for Carbon di-oxide bottling plant shall be installed during proposed expansion activities to completely utilize carbon di-oxide.
- Additional measures to control fugitive emissions/ suspended dust.
- Revised CER cost as cost is too less, hence cost should be increased to Rs. 5 Crores. Activities to be done shall be clarified and CER cost shall be invested before commissioning of project.
- Revised cost earmarked towards Environment Management Plan as cost is too less as compared to capacity proposed.
- Explore installation of air cooled condensers instead of water cooled condensers with boiler, if feasible.

- Ash management. MOU with brick manufacturers shall be submitted and explore possibility of installation of brick manufacturing unit.
- Ground water permission shall be obtained before commencement of construction activities.
- Action plan for greenbelt development @2500 trees per hectares.
- Filter press shall be installed instead of sludge drying beds.

**Accordingly, proposal was deferred for want of above additional information. Above additional information shall be submitted online to the parivesh portal for further consideration by EAC.**

#### **Agenda No. 4**

**Expansion of Distillery unit from 120 KLPD to 510 KLPD located at Sy. No. 40/1, 40/2, 40/3, 40/4, 40/5, 40/6, 41/1, 41/2 , 41/3, 41/4, 41/5, 41/6, 42, 47(P), 50/1(P), 41/1, 47/2, 49/1, 49/2, 62/2, 53/5A/2, 53/5B, 53/5K, 53/5D, 53/5E, 53/5G, 53/5, Village Chatnahalli, Taluk Hirekerur, District Haveri, State Karnataka by M/s. GM Sugars & Energy Limited - Consideration of Environment Clearance**

**[IA/KA/IND2/258946/2022 , IA-J-11011/77/2017-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Environmental Health & Safety Consultants Pvt Ltd made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of Distillery unit from 120 KLPD to 510 KLPD Located at Village Chatnahalli, Taluk Hirekerur, District Haveri, State Karnataka by M/s. GM Sugar & Energy Limited.

As per EIA Notification 2006 (Schedule 5 (g) Category A); however, as per in the MoEFCC Notification S.O. 345(E), dated the 17th January, 2019, notification number S.O. 750(E), dated the 17th February, 2020, S.O. 980 (E) dated 02nd March, 2021 & S. No. 2339(E) 16th June, 2021, a special provision in the EIA Notification, 2006 "Expansion of sugar manufacturing units or distilleries for production of ethanol, having Prior Environment Clearance (EC) for existing unit, to be used completely for Ethanol Blended Petrol (EBP) Programme only, as per self-certification in form of an affidavit by the Project Proponent, shall be appraised as category 'B2' projects."

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

Sl.	Product	Capacity
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No.			
<b>A. Products</b>			
1	10000 TCD Sugar Plant for crushing of Cane Juice	10000 TPD Cane Juice/Syrup	
2	Ethanol	510 KLPD @ 160 days Cane Juice/Syrup Mode 120 KLPD @ 170 days from Grain Mode	
3	Power (Co-generation)	50 MW	
<b>B. By-products</b>			
4	Spent wash	Cane Juice/Syrup Mode	Grain Mode
		2900 KLD	279 KLD (Wet cake + Concentrated Spent wash)
	Spent wash powder	64 TPD	
5	CO2	315 TPD	320 TPD
6	Yeast Sludge	1500 Kg/day	
7	Bagasse	295000 MT @160days	
8	DDGS	72 TPD	

Ministry had issued EC earlier vide letter no. J-11011/77/2017-IA-II (I) dated 02.02.2022 to the existing project of 120 KLPD Distillery unit, 10000 TCD Sugar Factory and 50 MW Co-Gen Unit located at Sy. Nos. 40/1, 40/2, 40/3, 40/4, 40/5, 40/6, 41/2, 41/, 41/4, 41/5, 41/6, 42, 47(P), 50/1(P), 41/1, 47/2, 49/1, 49/2, 53/5a/1, 62/2, Village Chatnahalli Taluk, Hirekerur, District Haveri in favour of M/s. GM Sugars & Energy Ltd. The industry has obtained CTE (Consent To Establishment) from KSPCB vide letter No. CTE-331370 dated 20.05.2022 and based on the CTE construction work has started and CTO (Consent To Operation) will be obtained for the project before starting its operation from KSPCB. Hence CCR is not applicable to the project.

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

Total existing plant area is 101.17 Hectares. No additional land is required for the expansion project as the same will be done within existing plant premises. Out of the total plant area 34.13 Hectares i.e. 33.7% of the total plant area will be developed under greenbelt & plantation. The estimated

project cost is Rs. 504.04 Crores. Capital cost of EMP would be Rs. 7.80 Crores and recurring cost for EMP would be Rs. 1.12 Crores per annum. Industry proposes to allocate Rs. 5.04 Crores towards Corporate Environment Responsibility. Total Employment after expansion will be 300 persons as direct & indirect.

PP reported that there are no National Parks, Reserved Forests (RF) / Protected Forests (PF), Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km radius. River/ water body: Tungabhadra River is flowing at a distance of 1 Km in East direction.

Ambient air quality monitoring was carried out at 8 locations during November 2021 to December 2021 and the baseline data indicates the ranges of concentrations as: PM10 (53.65 to 69.11  $\mu\text{g}/\text{m}^3$  ), PM2.5 (26.84 to 38.31  $\mu\text{g}/\text{m}^3$  ), SO2 (10.63 to 14.28  $\mu\text{g}/\text{m}^3$  ), NO2 (16.93 to 25.68  $\mu\text{g}/\text{m}^3$  ) and CO (0.04 to 0.09  $\text{mg}/\text{m}^3$ ). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.68  $\mu\text{g}/\text{m}^3$ , 0.29  $\mu\text{g}/\text{m}^3$  and 0.86  $\mu\text{g}/\text{m}^3$  with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 2615 KLPD and will be met from Tungabhadra River. Effluent of quantity 8200  $\text{m}^3/\text{day}$  will be treated through Condensate Polishing Unit (8200  $\text{m}^3/\text{day}$ ) & Effluent Treatment Plant (500  $\text{m}^3/\text{day}$ ). During cane juice/syrup mode, spent Wash will be concentrated and dried through spray dryers & then packed and sold out in local market as a spent wash powder. During grain based mode, raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS. The plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be 8.98 MW (Cane Crushing Unit Process - 3.64 MW, Cogeneration auxiliaries - 2.34 MW, Distillery Plant - 3 MW) which will be met from the proposed 50 MW Co-gen unit. Excess power of 37.02 MW will be sold to Power grid. Existing unit has 50, 2x120 TPH biomass/coal/spent wash fired boiler. After expansion, 160 TPH & 100 TPH biomass/coal fired boiler will be installed. ESP with a stack of height of 30 m will be installed with the existing boilers and ESP with a stack height of 85 m (common for both the proposed boilers) will be installed for controlling the particulate emissions within the statutory limit of 50  $\text{mg}/\text{Nm}^3$ . DG sets of 1X 1500 KVA & 1 X250 KVA will be used as standby during power failure and stack height (10 m ARL) will be provided as per CPCB norms to the proposed DG sets.

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

- ESP with a stack of height of 30 m will be installed with the existing boilers and ESP with a stack height of 85 m (common for both the proposed boilers) will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- Carbon di-oxide (320 TPD) generated during the fermentation process 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**

- DDGS (Distilled Dried Grains Stillage) (72 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler Ash (45 TPD) generated from the boiler will be supplied to brick manufacturers.
- Used oil (0.3 KL/annum) will be sold to authorized recyclers.
- CPU Sludge (0.047 TPD) will be used as manure.

As per Notification S.O 2339(E), dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 390 KLPD will be used for manufacturing fuel ethanol only.

During deliberations PP informed that M/s. GM Sugars & Energy Ltd. had obtained EC from MoEF&CC, New Delhi vide file No. J-11011/77/2017- IA-II (I) dated 02.02.2022. The industry has obtained CTE (Consent To Establishment) from KSPCB vide letter No. CTE-331370 dated 20.05.2022 and based on the CTE construction works have recently started and CTO (Consent To Operation) will be obtained for the project before starting its operation from KSPCB. Also, as per OM dated 29<sup>th</sup> March, 2022 for surrendering prior EC, PP informed that management is not abandoning the project or surrendering the project, Hence OM dated 29<sup>th</sup> March, 2022 is not applicable to the project.

EAC observed that prior EC is for 120 KLPD molasses based distillery whereas now proposal is for 120 KLPD grain based mode for 170 days and 510 KLPD cane juice/syrup mode for 160 days. As such, total capacity becomes 630 KLPD capacity. However proposal submitted is expansion from 120 KLPD to 510 KLPD. PP as well as consultant failed to explain the proposal to all EAC members. Hence, EAC decided to defer the proposal and directed PP as well as consultant to clarify the final proposal and upload

fresh documents i.e. EMP, Form-2 etc for complete single 510 KLPD distillery unit.

During deliberations, EAC discussed following issues and suggested them to address in their fresh report:

- Commitment that fresh water requirement shall be 4 KL/KL for grain based mode and 2.5 KL/KL for sugarcane juice/syrup.
- NOC shall be obtained from Irrigation department as canal is passing through the project site.
- Clarification regarding surface water monitoring results indicating BOD level of 47 mg/l as discussed in EAC. Latest surface water analysis results shall be submitted.
- Clarify/recheck regarding GLC values without air pollution control equipment, prescribed standards as 50mg/Nm<sup>3</sup> and stack height shall be calculated separately for both the boilers and GLC shall be revised based on recalculated parameters.
- Revised cost earmarked towards CER indicating name of villages. Also, specific activities with villages to be mentioned.
- Revised total cost of EMP and recurring cost per annum as it is too less as per project capacity.
- Details of configuration of ETP , capacity as well as flow diagram.
- Filter press shall be installed instead of sludge drying beds.
- Noise data presented in the meeting seems to be wrong. Fresh data to be incorporated.

***Accordingly, proposal was deferred for want of fresh report i.e. EMP, Form-2 etc for complete single 510 KLPD distillery unit. Above additional information should also be included in the report.***

### **Agenda No. 5**

**Residue Up-gradation and Distillate Yield Improvement Project with 11.00 MTPA Crude Processing by M/s Indian Oil Corporation Ltd located at Mathura Refinery, UP – Consideration of amendment in Environmental Clearance.**

**[IA/UP/IND2/26 9949/2022, J-11011/1100/2 007-IA-II (I)]**

The proposal is for amendment in the Environmental Clearance granted by Ministry vide letter number J-11011/1100/2 007-IA-II (I) dated 22<sup>nd</sup> November, 2021 for Residue Up-gradation and Distillate Yield

Improvement Project with 11.00 MMTPA Crude Processing by M/s Indian Oil Corporation Ltd located at Mathura Refinery, UP.

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

<b>Sr. No.</b>	<b>Para of EC issued by MoEF&amp;CC</b>	<b>Details as per the EC</b>	<b>To be Revised / Read as</b>	<b>Justification</b>
1.	Specific condition no.- xv	Industrial effluent generation shall not exceed 665 m <sup>3</sup> /day after expansion. Industrial effluent shall be treated in the effluent treatment plant. Treated effluent shall be recycled/reused as make up for the raw water cooling tower and remaining treated effluent shall be discharged into nallah.	Industrial effluent generation shall not exceed 665 m <sup>3</sup> /hr after expansion. Industrial effluent shall be treated in the effluent treatment plant. Treated effluent shall be recycled/reused as make up for the raw water cooling tower and remaining treated effluent shall be discharged into nallah.	Typographical error in the Specific Condition. As per proposal, industrial effluent generation is 665 m <sup>3</sup> /hr.

2.	Specific condition no.- xx	<p>Green belt 19.25 acres land area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO</p>	<p>Total green belt area of 37% of the total refinery area to be maintained.</p>	<p>Total green belt area of 37% of the total refinery area of 643 acres will be maintained. Additionally, more than 1.5 lakh trees have been planted in Taj Reserve Forest, Ranukta Reserve Forest, Mathura region &amp; nearby villages since inception.</p> <p>Furthermore, MR undertakes to carry on plantation drive every year as a part of its environmental responsibility. The past three years plantation data as below:</p> <p>2019-20 — 1500 nos.  2020-21 — 7000 nos.  2021-22 — 3000 nos.</p>
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3.	Specific condition no.- xxii	2.5% of total project cost should be earmarked towards Corporate Environmental Responsibility and item wise details along with time bound action plan should be prepared and submitted to the ministry's regional office at Lucknow. Implementation of such program should be ensured accordingly in a time bound manner.	Fund allocation for CER may be dropped in view of OM dated 30.09.2020.	As per OM dated 30.09.2020, EAC shall not prescribe allocation of fund under CER but shall prescribe specific conditions in physical terms to address concerns raised during public hearing. All issues raised during public hearing have already been addressed. Status of compliance of issues raised during public hearing are enclosed. Hence this specific condition may be dropped. PP has already complied all points emerged during public hearing. Schemes like treatment facilities to nearby villagers in hospital, admission of students of local villages in Kendriya Vidyalaya at Mathura Refinery township funded by Refinery, installation of solar streetlights in nearby villages etc. are being undertaken from time to time.
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4.	Specific condition no.- xxiii	Zero liquid discharge shall be ensured	Zero liquid discharge from the proposed project shall be ensured.	<p>Additional effluent from the project shall be completely reused.</p> <p>Regarding reducing discharge of 169 m<sup>3</sup>/hr in phases, it is planned to increase reuse of treated effluent in cooling tower, fire water and horticulture etc. Further, it may be informed that MR is already executing the scheme for use of treated sewage water of Mathura city partially that is about 10-20 MLD (416-833 m<sup>3</sup>/hr), which is currently being discharged in Yamuna river. Post receipt of treated sewage water at Mathura Refinery, total effluent to Yamuna river shall be reduced.</p>
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During deliberations, EAC discussed the following issues:

- Measures to reduce discharge quantity of 169 m<sup>3</sup>/hr in River Yamuna for existing unit.
- Details of CER activities shall be submitted with specific villages. Undertaking stating that activities as shown in CSR shall not be included in CER. CER budget as proposed in prior EC shall be used before commissioning of operation.
- Undertaking stating that greenbelt is already 37% of total plant area.

Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

After deliberations, EAC **recommended** for amendment in EC as proposed by the project proponent. However, all other terms and conditions mentioned in EC vide letter J-11011/1100/2 007-IA-II (I) dated 22<sup>nd</sup> November, 2021 shall remain unchanged. Following additional specific conditions are as follows:

- IOCL shall earmark sufficient funds to address the issues raised in the earlier public hearing, which should be monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc.
- Measures to be taken to reduce discharge quantity of 169 m<sup>3</sup>/hr in River Yamuna from the existing unit.

Prior EC para to be amended are given below:

i) Specific condition no.- xv shall be read as

Industrial effluent generation shall not exceed 665 m<sup>3</sup>/hr after expansion. Industrial effluent shall be treated in the effluent treatment plant. Treated effluent shall be recycled/reused as make up for the raw water cooling tower and remaining treated effluent shall be discharged into nallah.

ii) Specific condition no.- xx shall be read as

As informed, total green belt area of 37% of the total refinery area shall be maintained.

iii) Specific condition no.- xxii

Fund allocation for CER may be dropped in view of OM dated 30.09.2020.

iv) Specific condition no.- xxiii

Zero liquid discharge from the proposed project shall be ensured.

## **Agenda No. 6**

### **Expansion of Grain Based Ethanol Plant from 200 KLD to 500 KLD with existing 10 MW Co-generation Power Plant located at Village Dhubi, P.S Nirsa, District Dhanbad, State Jharkhand by M/s Ankur Biochem Pvt. Ltd.- Consideration of Environment Clearance**

**[IA/JH/IND2/266312/2022 , J-11011/205/2015-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Grass Roots Research & Creation India (P) Ltd made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of Grain Based Ethanol Plant from 200 KLD to 500 KLD with existing 10 MW Co-generation Power Plant located at Village Dhubi, P.S Nirsa, District Dhanbad, State Jharkhand by M/s Ankur Biochem Pvt. Ltd.

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

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

<b>S. No.</b>	<b>Name of unit</b>	<b>Name of the product/by-product</b>	<b>Existing</b>	<b>Proposed</b>	<b>Total</b>
1	Grain based distillery plant	Ethanol	200 KLPD (100 KLD Rectified Spirit/ENA+100 Ethanol for EBP)	300 KLPD ethanol	500 KLPD
2	Co-generation power plant	Power	10 MW	-	10 MW
3	DWGS dryer	DDGS	151 TPD	100 TPD	251 TPD
4	Fermentation	Carbon di-	140 TPD	210 TPD	350 TPD

	unit	oxide			
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Ministry had issued EC earlier vide letter no. J-11011/205/2015-IA-II (I) dated 27.02.2020 to the existing project of 200 KLPD Distillery unit and 10 MW co-generation power plant in favour of M/s. Ankur BiochemPvt. Ltd.

Standard ToR and public Hearing conduction is not applicable as the project falls under category B2 as per OM dated 16<sup>th</sup> June, 2021. It was informed that no litigation is pending against the project. Certified Compliance Report has been issued by IRO, MOEFCC, Ranchi dated 4<sup>th</sup> August, 2021. Action taken report has been submitted to IRO, MOEFCC, Ranchi dated 30<sup>th</sup> August, 2021.

Total existing plant area is 11.37 Hectares. No additional land is required for the expansion project as the same will be done within existing plant premises. Out of the total plant area 22.40 Hectares i.e. 22.40% of the total plant area is already developed and 1.2 Hectares i.e. 10.6% will be developed further as part of expansion. The estimated project cost is Rs. 160.6 Crores. Capital cost of EMP would be Rs. 6.65 Crores and recurring cost for EMP would be Rs. 1.54 Crores per annum. Industry proposes to allocate Rs. 1.6 Crores towards Corporate Environment Responsibility. Total Employment after expansion will be 420 persons as direct & indirect.

PP reported that there are no National Parks, Reserved Forests (RF) / Protected Forests (PF), Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km radius. Khudia River is at a distance of 0.05 km towards South direction and Pusal River is at a distance of 3.2 km towards NE.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.22µg/ m<sup>3</sup>, 0.14µg/ m<sup>3</sup>, 4.25µg/m<sup>3</sup> and 1.42µg/ m<sup>3</sup> with respect to PM10, PM2.5, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 2482 KLPD which will be met from surface water, supply water, ground water augmented with rainwater. Effluent of quantity 2023 m<sup>3</sup>/day will be treated through Condensate Polishing Unit of capacity 2450 m<sup>3</sup>/day (Existing CPU capacity is 180 m<sup>3</sup>/day and Proposed capacity is 2270 m<sup>3</sup>/day). Raw stillage is being/will be sent to decanter followed by MEE followed by dryer to produce DDGS. The plant is being/will be based on Zero Liquid discharge system.

Power requirement after expansion will be 8.3 MW which will be met from the existing 10 MW Co-gen unit. Existing unit has 97 TPH biomass fired boiler. ESP with a stack of height of 45 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. Existing DG sets of 1X 750 KVA & 1 X250 KVA and proposed DG set of 1250 KVA will be used as standby during power failure and stack height (30 m) will be provided as per CPCB norms to the proposed DG sets.

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

- ESP with a stack of height of 45 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>.
- Online Continuous Emission Monitoring System is being installed with the stack and data will be transmitted to CPCB/SPCB servers.
- Carbon di-oxide (350 TPD) generated during the fermentation process 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**

- DDGS (Distilled Dried Grains Stillage) (250 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler Ash (58000 TPA) generated from the boiler will be utilized in in-house brick manufacturing unit.
- Used oil (1.0 KL/annum) is being/will be sold to authorized recyclers.
- CPU Sludge is being/will be used as manure.

As per Notification S.O 2339(E), dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 300 KLPD will be used for manufacturing fuel ethanol only.

During deliberations EAC discussed following issues:

- PP informed that Khudia River is at a distance of 0.05 km towards South direction. Existing plant is operational, therefore site selection/justification criteria is not applicable. However, EAC directed PP to obtain NOC from Irrigation Department for proposed expansion and frame the condition in EC granted.
- Greenbelt development of 20 m width towards bank of river.
- Revised plant layout showing CNG shall be replaced by CO<sub>2</sub> plant.
- Fresh water withdrawal permission from all the sources shall be submitted.

Committee was satisfied with the response of project proponent. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

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

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

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: -

- (i). As per the Notification S.O. 2339(E), dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 300 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). NOC shall be obtained from State Irrigation Department for Khudia River present at a distance of 0.05 km towards South direction.
- (iii). 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.
- (iv). 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.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from surface water, supply water, ground water. Prior permission shall be obtained for ground water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Boiler ash will be utilized for making bricks in the proposed brick making unit. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power.
- (vii). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (viii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health



shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

- (ix). 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.
- (x). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xi). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xii). 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.
- (xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area @ 2500 trees per hectares, 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. Greenbelt shall be developed before commissioning of the plant. Greenbelt development of 20 m width towards bank of river shall be developed.
- (xiv). PP proposed to allocate Rs. 1.6 Crores towards CER which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15%

shall be allotted solely for parking purposes with facilities like rest rooms etc.

- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Internal roads shall be made pucca.
- (xvii). 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.
- (xviii). 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.

#### **1. Any other items with the permission of the Chair.**

#### **Clarification regarding requirement of Environmental Clearance for oil & gas transportation pipe line.**

Documents related to above matter were circulated to EAC members and EAC members felt some more time is needed to go through documents and suggested that a separate meeting should be arranged for discussion.

\*\*\*

## **ANNEXURE**

### **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>Position</b>
1.	Shri S. C. Mann	Chairman
2.	Dr. J. S. Sharma (09.06.2022; one day)	Member
3.	Prof. Y. V. Rami Reddy	Member
4.	Prof. (Dr.) Dilip Majumdar	Member
5.	Dr. Sanjeev Chaudhari (09.06.2022; one day)	Member
6.	Dr. Onkar Nath Tiwari	Member
7.	Shri J. S. Kamyotra	Member
8.	Dr. Rahul Ramesh Rao Mungikar	Member
9.	Dr. Seshagiri Rao Ambati (IIFE)	Member
10.	Dr. Sanjay V. Patil (VSI)	Member
11.	Shri A.N. Singh, Scientist 'E'	Member Secretary
<b>MoEFCC</b>		
12.	Dr. Mahendra Phulwaria	Scientist 'C'
13.	Kanaka Teja	Research Assistant
14.	Ms. Meetika Gupta	Research Associate

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