

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

Dated: 07.01.2022

**MINUTES OF THE 47th MEETING OF THE EXPERT APPRAISAL
COMMITTEE**

(INDUSTRY-2 SECTOR PROJECTS)

HELD ON 23rd December, 2021

**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 46th Meeting of the EAC (Industry-2) held during 13th - 14th December 2021 conducted through Video Conferencing (VC), confirmed the same.

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

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

23rd December, 2021 (Thursday)

Agenda No. 47.1

Expansion of Grain / Molasses based Distillery from 65 to 180 KLPD & CPP from 1.4 to 5.4 MW by M/s. Karthik Agro Industries Pvt. Ltd., (KAIPL) located at SY No 92 Hoolageri Village, Tal.: Badami, Dist.: Bagalkote, Karnataka - Consideration of Environment Clearance.

[IA/KA/IND2/191585/2021, J-11011/224/2008-IA II (I)]

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

The proposal is for environmental clearance to the project for Expansion of Grain / Molasses based Distillery from 65 to 180 KLPD & CPP from 1.4 to 5.4 MW by M/s. Karthik Agro Industries Pvt. Ltd., (KAIPL) located at SY No 92 Hoolageri Village, Tal.: Badami, Dist.: Bagalkote, Karnataka.

As per the provisions of "EIA Notification No. S.O. 1533 (E)" dated 14.09.2006; as amended vide Notification No. "S.O. 1960 (E)" dated 13.06.2019; the proposed Expansion of Grain / Molasses based Distillery from 65 to 180 KLPD activity at 5(g) under Category 'A' & is being appraised at Center Level by EAC of MoEFCC.

The Standard ToRs has been issued by Ministry vide letter No. J-11011/224/2008-IA II (I) dated 22nd January, 2021 for Expansion of Grain / Molasses based Distillery from 65 to 180 KLPD & CPP from 1.4 to 5.4 MW. Public Hearing for the proposed project has been conducted by the Karnataka State Pollution Control Board on 21.09.2021 at Project Site of Karthik Agro Industries Pvt. Ltd (KAIPL), Bagalkot and chaired by Additional Deputy Commissioner, Bagalkot. No any specific issues were raised during the Public Hearing. It was informed that no litigation is pending against the project.

Ministry has issued EC earlier vide letter No. J-11011/224/2008-IA II (I) dated 17th March, 2009 to the Establishment of 65 KLPD Grain/ Molasses based Distillery in favor of Karthik Agro Industries Pvt. Ltd. (KAIPL).

Details of Certified compliance report submitted by RO, MoEF&CC. – Visit of RO, MoEFCC, Bangalore was conducted on 04.08.2021 and RO report was received on 07.09.2021. The compliance to the various conditions of Environment Clearance is Satisfactory.

The details of products and capacity are as under:

| Industrial Unit | Products & By-products | Units | Quantities | | |
|-----------------------------------|--|-------|------------|----------|--------|
| | | | Existing | Proposed | Total |
| Distillery (65 to 180 KLPD) | Rectified Spirit/ ENA/ Ethanol/ Absolute Alcohol (AA) | KL/M | 1,950 | 3,450 | 5,400 |
| | By-product | | | | |
| | DWGS | MT/M | 6,540 | 11,460 | 18,000 |
| | DDGS (10% Moisture) | MT/M | -- | 6,000 | 6,000 |
| | Fusel Oil | MT/M | 3.6 | 6.6 | 10.2 |

| | | | | | |
|----------------------------------|-------------|------|-------|-------|-------|
| | CO2 | MT/M | 1,620 | 2,880 | 4,500 |
| CPP (1.4 to 5.4 MW) | Electricity | MW | 1.4 | 4.0 | 5.4 |

Existing land area is 1,61,874 M². No additional land area will be acquired for expansion project. Industry has already developed Green Belt in an area of 64,000 M² (40% of total plot area). The estimated project cost is Rs. 164.5 Crores including existing investment of Rs. 48 Crores. Total capital cost earmarked towards environmental pollution control measures under distillery is Rs. 79.05 Crores and the Recurring cost (operation and maintenance) will be about Rs. 8.20 Crores per annum. Total Employment is 197 persons as direct & indirect persons after expansion. Industry proposes to allocate Rs.1.5 Crores @ of 1.3% towards Corporate Environmental Responsibility.

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

Ambient air quality monitoring was carried out at 8 locations during October 2020 – November 2020 – December 2020 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (44.60 – 65.90 µg/M³), PM_{2.5} (13.20 – 22.60 µg/M³), SO₂ (11.70 – 26.20 µg/M³) and NO_x (18.80 – 30.90 µg/M³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs would be 0.338 µg/M³ for PM₁₀ (towards West side), 0.086 µg/m³ for PM_{2.5} (towards West side), 3.05 for SO₂ µg/m³ (towards West side) and 0.714 µg/m³ NO_x(towards West side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement after expansion of Molasses based Distillery will be 2218 CMD. Out of which 687 CMD will be fresh water taken from Ghatprabha River. Total water requirement after expansion of Grain based Distillery will be 2104 CMD. Out of which 896 CMD will be fresh water taken from Ghatprabha River. After expansion of Grain based Distillery, process effluent generated in the form of FOC, PRC RC Lees – 590 M³/D, Condensate – 425 M³/D & Other effluent to the tune of 142 M³/D which will be treated in existing & proposed CPUs & recycled in process. After expansion of Molasses based Distillery, process effluent generated in the form of raw spent wash to the tune of 1,440 M³/D which would be concentrated in Multiple Effect Evaporator (MEE) and the conc. Spent wash @ 288 MT/D (1.6 KL/KL of alcohol) would be blended with bagasse or coal and burnt in proposed 40 TPH incineration boiler. Other effluents viz. spent lees @ 285 M³/D, MEE condensate @ 1152 M³/D and Other effluents @ 142 M³/D will be treated in existing & proposed CPUs. Treated effluent from CPU will be reused in process and boiler makeup, thereby achieving Zero Liquid Discharge (ZLD) for Distillery. The distillery will be operated for 330 days.

Power requirement for distillery after expansion will be 3.7 MW will be met from own CPP. After Expansion no DG set will be installed. Existing unit has 500 KVA DG set with 2.1 M stack height. Existing Distillery has one 16 TPH Boiler which is already installed. M.D.C. (Mechanical Dust Collector) with a stack of height of 47 M is installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the boiler. After expansion, under Molasses based Distillery a new incineration boiler of 40 TPH capacity would be installed. Bagasse (400 MT/D) / Coal (16 MT/D) & Spent wash 388 MT/D would be used as fuel. ESP with a stack of height of 100 M installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the boiler. Under Grain based Operations a 50 TPH Husk (255 MT/D) / Bagasse (500 MT/D) would be used as fuel. ESP with a stack of height of 61 M installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the boiler.

Details of process emissions generation and its management:

The CO₂ generation shall take place in fermenters of the distillery. CO₂ to the tune of 150 MT/Day shall be released from 180 KLPD distillery plant. CO₂ shall be compressed, bottled and supplied to manufacturers of beverages.

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

Details of Solid waste generated & its management

| No. | Description | Quantity (MT/D) | | Disposal Facility |
|-----|--------------|-----------------|-----------------|------------------------------|
| | | Existing | After Expansion | |
| 1 | Boiler Ash | 29 | 81 | To Bricks Making |
| 2 | Yeast Sludge | 14 | 39 | Burnt in Incineration Boiler |
| 3 | CPU Sludge | 1 | 1 | |

Details of Hazardous waste generated & its management

No any hazardous waste will be generated from distillery unit.

After detailed deliberations, EAC found incomplete information regarding certain aspects and desired the following additional information from PP:

- PP shall submit revised air quality emission data from certified/accredited laboratory.
- PP shall submit instrument list used for pollutant measurement of air.
- Surface water permission submitted by PP is not clear, hence, PP shall clarify source of water throughout the year.

- PP shall submit revised water balance reducing the fresh water requirement @ 4.0 KL/KL.

Accordingly, the proposal was deferred for the needful.

Agenda No. 47.2

Proposed 120 KLD Grain Based Ethanol Plant with 3.0 MW Co-generation of power by M/s. DSK Foods Private Limited located at Village: Pachchawala, Tehsil Kashipur, P.O.: Kundeshwari District: Udham Singh Nagar, Uttarakhand - Consideration of Environment Clearance.

[IA/UK/IND2/244469/2021, J-11011/515/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Environmental and Technical Research Centre, Lucknow, 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 120 KLD Grain Based Ethanol Plant with 3.0 MW Co-generation of power by M/s. DSK Foods Private Limited located at Village: Pachchawala, Tehsil Kashipur, P.O.: Kundeshwari District: Udham Singh Nagar, Uttarakhand.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th 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.

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

The details of products and capacity are as under:

| Sr. No. | Product Details | Quantity |
|----------------|------------------------|-----------------|
| 1 | Ethanol | 120 KLD |
| 2 | Co-Gen Power | 3.0 MW |

Proposed land area is 7.2790 hectares, which is already under the possession of M/s. DSK Foods Private Limited. Industry will develop greenbelt in an area of 2.4021 hectares i.e., 33 % out of total area of the project. Number of operational days of plant will be 365 per annum. The estimated project cost is Rs. 215.90 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 47.04 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1.79 Crores/Annum. Total Employment will be 100 persons as direct & indirect. Industry proposes to allocate Rs. 200 lakhs towards Corporate Environmental Responsibility.

There are No National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors, lies within 10 km radius of the project site, Gulzarpur Reserved Forest (~6.58 km in North-East direction), Jurka Reserved Forest (~6.58 km in North-East direction), Dhela Nadi (~7.65km in West direction), Bahlla Nadi (~2.24 km in South direction), Dabka Nadi (~6.82 km in EEN direction), Kosi River (~6.39 Km in East direction), Pachchawala Minor (~0.35 Km in North direction) are found within 10 km radius.

Total water requirement for the Grain based Ethanol Plant will be 1210 KLD out of which 617 KLPD will be recycled in plant operations. Hence, the fresh water requirement for the project will be 593 KLD which will be met from ground water. Spent Wash (Slops) generation from Distillation, will be sent through separation of suspended solids in Decanter Centrifuge, part Thin Slops are concentrated in multi-effect evaporators to form a Thick (Protein) Syrup, which is mixed with the Wet Cake DWG separated earlier from Decanters. This interim product called DWGS has 28-30% w/w Solids is subject to drying in a rotating steam tube bundle dryer to deliver a value-added by-product – DDGS – Distillers Dried Grains with soluble and which has min. 90% Solids and max 10% moisture. This DDGS sells as Cattle Feed / Poultry Feed / Fish Feed based on its Protein Content. Hence, entire spent wash is decanted, concentrated into syrup in a Multi-Effect Evaporation followed by Drying, in order to achieve Zero Effluent Discharge. Effluent of 617 KLD quantity will be treated through state of art CPU/Effluent Treatment Plant of 800 KLD capacity (Anaerobic, aerobic, Filters, & RO system). The plant will be based on Zero Liquid discharge system.

Power requirement for proposed project will be 2.8 MW (maximum) will be met from own Co-generation power plant of 3.0 MW. Unit has proposed 1 boiler of capacity 30 TPH. Electro Static Precipitator (ESP) with a stack of height of 60 metres will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler.

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 (~70 TPD) 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:

| Waste | Quantity | Uses / Disposal |
|----------------------------------|-----------------|-----------------------------------|
| Total Ash | 5 MT/Day | Will be used as soil conditioner. |
| Condensate polishing unit sludge | 0.3 KLD | |
| Cattle Feed DDGS | 58 MT/Day | Will be sold as cattle feed. |

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 120 KLD will be used for manufacturing fuel ethanol only.

During deliberations EAC sought the following information/commitments from PP:

- PP shall install ESP with the proposed boiler.
- Rice husk/other biomass shall be only used as fuel in boiler.
- Company to construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- 15% of the total plant area will be reserved for parking.
- PP shall utilize fresh water @4.0 KL/KL of ethanol production.
- Brick manufacturing unit will be installed within the plant premises for utilization of fly ash.
- Entire project shall be ZLD and no single drop of water shall be discharged outside plant premises.
- PP shall allocate at least Rs. 60 Lakhs for Occupational Health Safety.
- 33% of the total project area shall be developed with greenbelt within the plant premises including 5-10 m width greenbelt peripherally.
- CO₂ bottling plant shall be installed within plant premises.
- The proposed budget allocation Rs. 2.15 Crores towards CER and shall be used for construction/up-gradation of school building with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light etc. Further, the works under CER Plan shall be implemented in consultation with District Collector before commissioning of the project.

PP has submitted the desired information as sought above.

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 OM dated 16th June, 2021, project falls in category B2 and the proposed capacity of 120 KLD shall be 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). Total Fresh water requirement shall not exceed @4.0 KL/KL and will be met from ground water. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. 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.
- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. Brick manufacturing unit will be installed within the plant premises for utilization of fly ash. ESP shall be installed with the boiler. PP shall use only Rice huck/other biomass as a fuel of boiler.
- (vi). CO₂ bottling plant shall be installed within plant premises.
- (vii). PP shall allocate at least Rs. 60 Lakhs 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.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (x). 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.
- (xi). The company shall undertake waste minimization measures as below
 - (a) Metering and control of quantities of active ingredients to minimize waste;
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

- (xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiii). PP proposed to allocate Rs. 2.15 Crores towards CER and shall be used for construction/up-gradation of school building with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light etc. Further, the works under CER Plan shall be implemented in consultation with District Collector before commissioning of the project.
- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 47.3

Proposed 100 KLPD Grain Based Ethanol Plant along with 3.0 MW Cogeneration Power Plant by M/s. Nav Durga Pvt. Ltd. located at Village- Saraipali, Post-Gerwani, Tehsil- Tamnar, District- Raigarh, Chhattisgarh - Consideration of Environment Clearance.

[IA/CG/IND2/244283/2021, J-11011/514/2021-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 100 KLPD Grain Based Ethanol Plant along with 3.0 MW Cogeneration

Power Plant by M/s. Nav Durga Pvt. Ltd. located at Village- Saraipali, Post-Gerwani, Tehsil- Tamnar, District- Raigarh, Chhattisgarh.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th 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.

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

The details of products and capacity are as under:

| SL.No | Units | Proposed Capacity |
|--------------|---|--|
| 1 | Installed Capacity | Grain Base Distillery of 100 KLPD |
| 2 | Major Raw Material | Grain (primarily broken rice) |
| 3 | Final Product & By-Product | Ethanol (100 KLPD) DDGS- 47 TPD CO ₂ - 76 TPD |
| 4 | Co-Generation Power Plant (1 x 26 TPH-AFBC) | 3.0 MW |

Total land area available for the project is 5.88 Ha. Industry will develop greenbelt in an area of 33% of total project area i.e. 1.64 Ha out of total area of the project. The estimated project cost is Rs. 136.75 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 501 lakhs and the Recurring cost (operation and maintenance) will be about Rs. 106.25 lakhs per annum. Total Employment will be 440 persons as direct & indirect due to the project. Industry proposes to allocate Rs. 1.36 Cr @ 1% of total project cost towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Kurkut River is at approx. 6.5 km towards NW, Maand River is at approx. 10.3 km towards WNW, Kelo River is at approx. 9.3 km towards E, Rakmapali Dam is at approx. 9 km towards SW, Tipakhol Pond is at approx. 9.3 km towards SSE, Water Reservoir is at approx. 9.3 km towards S, Kelo Reservoir is at approx. 8.6 km towards ESE, Bilaspur Reservoir is at approx. 5.6 km towards SSW and Rabo Dam is at approx. 5.3 km towards NW.

Ambient air quality monitoring was carried out at Project Site during 01.11.2021 to 26.11.2021 and baseline data indicates the ranges of

concentrations as: PM₁₀ (82.9 – 102 µg/m³), PM_{2.5} (50.1–62.6 µg/m³), SO₂(11.4–13.6 µg/m³) and NO₂ (17.5–21.4 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.03 µg/m³, 0.02 µg/m³, 2.19 µg/m³ and 0.53 µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

One Time Total water requirement for the project will be 1495 KLD which will be further reduced through recycling & reuse of 1095 KLD. Total fresh water demand for distillery operation is 401 KLD @4KL of water/KL of Ethanol. Net fresh water requirement including power plant of 3.0 MW is 571 KLD @5.7 KL/KL of ethanol production, which will be sourced from surface water augmented with rain water. The application for surface water permission has been submitted to Water Resource Department, Raigarh. Effluent of 439 KLD quantity will be treated through 530 KLPD ETP/CPU. The plant will be based on Zero Liquid discharge system.

During operation phase power requirement will be 1.75 MW /Day and will be fulfilled by 3.0 MW Co-generation power plant within the project site. Surplus power will be connected to State Grid. For emergency, 1 DG set of 500 KVA will be installed within the plant area. Project will have 26 TPH AFBC boiler will be installed. ESP and bag filter with a stack of height of 60 m will be installed for controlling the particulate emissions within the statutory limit for the proposed boilers. Regular monitoring will be done to ensure that ambient air quality standards to meet all the time. All the internal roads will be asphalted.

Details of process emissions generation and its management:

CO₂ generated during fermentation process will be collected, purified, liquefied and sold to vendors.

Details of Solid waste/ Hazardous waste generation and its management

| Type of Waste | Quantity (TPA) | Storage | Utilization/ Disposal |
|--|----------------|--------------|--|
| DDGS – (by product) (Dried distillers’ grains with soluble) | 15,345 | Covered shed | Sold as Cattle Feed, Poultry & Fisheries |
| Ash from boiler | 13,068 | Silo | Sold to Bricks manufactures in nearby area |
| Waste papers/Boxes | 2.5 | Covered shed | Sold to recyclers |
| Used Oil | 1.0 KL | HDPE drums | Used for oiling the |

| | | | | |
|---------------------|-------|--------|----------------------------|--|
| | | | in covered shed | machine in house and balance will be given to authorized re-cycler |
| Spent from DM Plant | Resin | 0.6 KL | HDPE drums in covered shed | Given to authorized re-cycler |

As per OM dated 16th 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 of fuel ethanol only.

During deliberations EAC sought the following information/commitments from PP:

- 33% of the total project area shall be developed with greenbelt within the plant premises including 5-10 m width greenbelt peripherally.
- 15% of the total plant area will be reserved for parking.
- PP shall obtain NOC from the concerned regulatory authority for surface water withdrawal permission. Further, PP shall not be allowed to commission the project without surface water withdrawal permission from concerned regulatory authority.
- PESO certificate shall be obtained.
- Company to construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- PP shall use Rice huck/briquette as a fuel of CPP.
- Brick manufacturing unit will be installed within the plant premises for utilization of fly ash.
- PP shall utilize fresh water @4.0 KL/KL of ethanol production.
- The proposed budget allocation of Rs. 1.36 Crores towards CER and shall be used before commissioning of the project. Total amount shall be spent for installation of solar panel (@INR 40,000/KW) in nearby villages.

PP has submitted the desired information as sought above.

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 OM dated 16th June, 2021, project falls in category B2 and the proposed capacity of 100 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of 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). Total Fresh water requirement shall not exceed @4.0 KL/KL and will be met from surface water augmented with rain water. PP shall obtain NOC from the concerned regulatory authority for surface water withdrawal permission. Further, PP shall not be allowed to commission the project without surface water withdrawal permission from

concerned regulatory authority. 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.

- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. Brick manufacturing unit will be installed within the plant premises for utilization of fly ash. PP shall use Rice huck/briquette as a fuel of CPP.
- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (x). 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.
- (xi). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiii). PP proposed to allocate Rs. 1.36 Crores towards CER and shall be used before commissioning of the project. Total amount shall be spent for installation of solar panel (@INR 40,000/KW) in nearby villages.

- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 47.4

Proposed Greenfield Project of 200 KLPD Grain Based Ethanol Plant along with 4.0 MW Co-generation Power Plant by M/s. Seas Biotech Private Limited located at Industrial Growth Centre, Village-Monrai, PO & PS-Matia, District-Goalpara, Assam - Consideration of Environment Clearance.

[IA/AS/IND2/245748/2021, J-11011/521/2021-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 Greenfield Project of 200 KLPD Grain Based Ethanol Plant along with 4.0 MW Co-generation Power Plant by M/s. Seas Biotech Private Limited located at Industrial Growth Centre, Village-Monrai, PO & PS-Matia, District-Goalpara, Assam.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th 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.

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

The details of products and capacity are as under:

| SL.No | Units | Proposed Capacity |
|--------------|--|--|
| 1 | Installed Capacity | Grain Base Distillery of 200 KLPD |
| 2 | Major Raw Material | Grain (primarily broken rice) |
| 3 | Final Product & By-Product | Ethanol (200 KLPD) DDGS- 140 TPD CO ₂ - 110 TPD |
| 4 | Co-Generation Power Plant (1 x 40 TPH-AFBC) | 4.0MW |

The land area available for the project is 7.284 Ha. Industry will develop greenbelt in an area of 33% of total project area i.e. 2.404 Ha. out of total area of the project. The estimated project cost is Rs.121.28 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 510 lakhs and the Recurring cost (operation and maintenance) will be about Rs. 110 lakhs per annum. Total Employment will be 146 persons as direct & indirect due to the project. Industry proposes to allocate Rs. 1.21 Cr @ 1% of total project cost towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Brahamputra River is at approx. 0.9 km towards North, Mornoi River is at approx. 2.4 km towards East, Krishnai River is at approx.3.1 km towards SE and Dudhoni River is at approx. 3.4 km towards SE.

Ambient air quality monitoring was carried out at Project Site during 04.11.2021 to 29.11.2021 and baseline data indicates the ranges of concentrations as: PM10 (63.9 – 86.5 µg/m³), PM2.5 (32.9–45.1 µg/m³), SO₂ (6.5–8.1 µg/m³) and NO₂ (14.9–18.8 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.13 µg/m³, 0.09 µg/m³, 3.51 µg/m³ and 0.56 µg/m³ with respect to PM10, PM2.5, So2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

One Time Total water requirement for the project will be 2979 KLD which will be further reduced through recycling & reuse of 2189 KLD. Total fresh water demand for distillery operation is 790 KLD @3.95 KL of water/KL of Ethanol. Net fresh water requirement including power plant of 4.0 MW is 1045 KLD @5.2 KL/KL of ethanol production, which will be

sourced from ground water augmented with rain water. The applications for permission of withdrawal of ground water has been submitted to CGWA vide application no 21-4/1515/AS/IND/2021 dated 18.12.2021. Effluent of 877 KLD quantity will be treated through 1000 KLPD ETP/CPU. The plant will be based on Zero Liquid discharge system.

During operation phase power requirement will be 3.8 MW /Day and will be fulfilled by 4.0MW Co-generation power plant within the project site. Surplus power will be connected to State Grid. For emergency, 1 DG set of 500 KVA will be installed within the plant area. Project will have 40 TPH AFBC boiler will be installed. ESP and bag filter with a stack of height of 60 m will be installed for controlling the particulate emissions within the statutory limit for the proposed boilers. Regular monitoring will be done to ensure that ambient air quality standards to met all the time. All the internal roads will be asphalted.

Details of process emissions generation and its management:

CO₂ generated during fermentation process will be collected, purified, liquefied and sold to vendors.

Details of Solid waste/ Hazardous waste generation and its management

| Type of Waste | Quantity | Storage | Utilization/ Disposal |
|--|---------------|-------------------------------|--|
| DDGS – (by product) (Dried distillers’ grains with soluble) | 46,200 TPA | Covered shed | Sold as Cattle Feed, Poultry & Fisheriesr |
| Ash from boiler | 34,650 TPA | Silo | Sold to Bricks manufactures in nearby area |
| Waste papers/Boxes | 3.5 TPA | Covered shed | Sold to recyclers |
| Used Oil | 2.0 KL | HDPE drums in covered shed | Used for oiling the machine in house and balance will be given to authorized re-cycler |
| Spent Resin from DM Plant | 2.0 KL | HDPE drums in covered shed | Given to authorized re-cycler |
| ETP Sludge | 104.36 Kg/Day | Stored in the dedicated Place | Given to authorized re-cycler |

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 200 KLPD will be used for manufacturing of fuel ethanol only.

During deliberations EAC sought the following information/commitments from PP:

- 33% of the total project area shall be developed with greenbelt within the plant premises including 5-10 m width greenbelt peripherally.
- 15% of the total plant area will be reserved for parking.
- PP shall obtain NOC from the concerned regulatory authority for surface water withdrawal permission. Further, PP shall not be allowed to commission the project without surface water withdrawal permission from concerned regulatory authority.
- PESO certificate shall be obtained.
- Company to construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- PP shall use Rice huck/briquette as a fuel of CPP.
- Brick manufacturing unit will be installed within the plant premises for utilization of fly ash.
- PP shall utilize fresh water @3.95 KL/KL of ethanol production.
- The proposed budget allocation of Rs. 1.21 Crores towards CER and shall be used before commissioning of the project. Total amount shall be spent for installation of solar panel (@INR 40,000/KW) in nearby villages.

PP has submitted the desired information as sought above.

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 OM dated 16th June, 2021, project falls in category B2 and the proposed capacity of 200 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of 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). Total Fresh water requirement shall not exceed @3.95 KL/KL and will be met from ground water augmented with rain water PP shall obtain NOC from the concerned regulatory authority for surface water withdrawal permission. Further, PP shall not be allowed to commission the project without surface water withdrawal permission from concerned regulatory authority. 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.
- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. Brick manufacturing unit will be installed within

the plant premises for utilization of fly ash. PP shall use Rice huck/briquette as a fuel of CPP.

- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (x). 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.
- (xi). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiii). PP proposed to allocate Rs. 1.21 Crores towards CER and shall be used before commissioning of the project. Total amount shall be spent for installation of solar panel (@INR 40,000/KW) in nearby villages.
- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 47.5

Proposed distillery 120 KLPD, Sugar Factory 10000 TCD and Co-Gen Unit of 50 MW at Sy. No. 40/1, 40/2, 40/3, 40/4, 40/5, 40/6, 41/ 41/3, 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 of Chatnahalli Village, District Haveri, Karnataka by M/s GM SUGARS AND ENERGY LTD- Reconsideration of Environment Clearance.

[IA/KA/IND2/200952/2017, IA- J-11011/77/2017-IA-II (I)]

The proposal was earlier placed before the EAC (Ind-2) in its 41st EAC meeting during 28th – 30th September and in 44th EAC meeting held on 22nd November, 2021 wherein EAC deferred the proposal and desired certain requisite information/inputs.

Information desired by the EAC and responses submitted by the project proponent is as under:

| S. No | ADS | Reply of PP | Observation of EAC |
|--------------|--|--|--|
| 1. | A fresh base line data for a period of 15 days shall be submitted. | PP has submitted the details of the monitoring done for 15 days. | EAC deliberated the issue and found it satisfactory. |
| 2. | Revised water balance to submitted reducing the fresh water requirement @3.5 kL water consumption/kL alcohol | PP has submitted the same details of water balance sheet without revision and submitted that net water | EAC found the fresh water requirement to be high for |

| | | | |
|--|----------|--|---|
| | produced | requirement of the distillery shall not exceed 1923 KLPD | an 120 KLPD plant and decided that fresh water requirement shall not exceed @3.5 kL water consumption/ kL alcohol produced. |
|--|----------|--|---|

The Project Proponent and the accredited consultant M/s. Ultra-tech made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project Proposed Distillery, Sugar and Co-Gen Unit at Sy. No. 40/1, 40/2, 40/3, 40/4, 40/5, 40/6, 41/ 41/3, 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 of Chatnahalli Village, District Haveri, Karnataka by M/s GM SUGARS AND ENERGY LTD.

As per the provisions of "EIA Notification No. S.O. 1533 (E)" dated 14.09.2006; as amended vide Notification No. "S.O. 1960 (E)" dated 13.06.2019; the proposed expansion of Sugar Factory is listed at activity 5(j) under 'Category B' while Molasses based Distillery activity at 5(g) under Category 'A' respectively. As the Sugar Factory & Distillery projects are located in same premises as an integrated project complex, the entire proposal of expansion of Sugar Factory & Distillery is being appraised at Center Level by EAC of MoEFCC. No litigation is pending against the proposal.

The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 22nd meeting held during 17th - 18th April 2017 and recommended Terms of References (ToRs) for the Project. Subsequently, ToR has been issued by Ministry vide letter No. J-11011/77/2017-IA-II (I) dated 07th July 2017. Public Hearing for the proposed project has been conducted by the Karnataka Pollution Control Board on 23rd May, 2018 presided by Deputy Commissioner, Haveri district. The main issues raised during the public hearing are related to employment to local villagers, survey of surrounding forest area, Waste water management, electricity to the local people and rate fixation of sugarcane.

The details of products and capacity are as under:

| S. No | Product Details | Existing Quantity | Proposed Quantity | Total Quantity |
|-------|-----------------|-------------------|-------------------|----------------|
| | | | | |

| | | | | |
|-------|------------|---|-----------|-----------|
| | | | | |
| 1 | Sugar | 0 | 10000 TCD | 10000 TCD |
| 2 | Distillery | 0 | 120 KLPD | 120 KLPD |
| 3 | Co-Gen | 0 | 50 MW | 50 MW |
| Total | | - | - | - |

The total area for the proposed distillery project is 9,44,637.46 m². Industry will develop greenbelt in an area of 33% i.e. 3,11,730.36 m² out of total area of the project. Development of greenbelt to be completed along with commissioning of the project.

The estimated project cost is Rs 376 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 306 lakhs and the Recurring cost (operation and maintenance) will be about Rs 87 lakhs per annum. Total Employment will be 494 persons as direct & 5000 persons indirect. Industry proposes to allocate Rs. 6.00 crores towards CER and it shall be spent on villages nearby with the breakup as follows:

- Rs 2.00 crore – Improving infrastructure in schools
- Rs 2.00 crore – Providing drinking water facilities
- Rs. 1.00 crore – Improving infrastructure in hospitals
- Rs. 1.00 crore- Installation of solar power

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body Tungabadra is flowing at a distance of 1.36 km in East direction.

Ambient air quality monitoring was carried out at 9 locations during Oct to Dec 2017 and the baseline data indicates the ranges of concentrations as: PM10 (51.20-46.80 µg/m³), PM2.5 (28.4-23.8 µg/m³), SO₂ (10.7-8.10 µg/m³) and NO₂ (14.5-11.1 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 12.0 µg/m³, 5.29 µg/m³ and 10.61 µg/m³ with respect to PM10, Sox and NO_x. Further, a fresh baseline data study has been conducted again for 15 days from 23rd November, 2021. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Fresh water requirement shall not exceed 1923 KLPD will be met from Tungabadra River. Effluent of 1480 quantity will be treated through ETP. The plant will be based on Zero Liquid discharge system.

Total power requirement for Ethanol plant will be 17625 kVA and will be met from Co-gen unit. Unit has 120 x 2 TPH + 1 x 55 TPH Bagasse fired boiler. Multi cyclone separator/ bag filter with a stack of height of 30 m

will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers.

Details of process emissions generation and its management:

Air Pollution Control

- Adequate stack height will be provided for better dispersion of the air pollutants;
- Bag filter will be installed to control the particulate matter emission
- Ambient air quality and stack emission would be regularly monitored and effective control exercised, so that the stack emission load limits would be met at all the time.
- Green belt will be developed which will help in attenuating the pollutants emitted by the plant.
- Adequate measures for control of fugitive dust emissions will be taken.
- All the roads will be asphalted.
- CO₂ generated from the process will be bottled/made solid ice and sold to authorized vendors.

Waste Water Treatment

- Fresh water requirement of the project will be met by jack well near Tungabhadra river.
- The proposed project would be based on "Zero Liquid Discharge (ZLD)".
- MEE system will be provided.
- The sewage generated from the sanitary blocks will be treated in STP and used for irrigation.
- Rainwater harvesting will be done and the water will be discharge in ground water.
- A duly lined storage lagoon of 7 days capacity shall be provided.
- Treatment of Effluent
- Spent Lees from Distillation column and process condensate will be recycled.
- Spent Wash will be concentrated in multi stage multi effect evaporator and burned in insulator.
- Waste water will be treated in ETP. Treated Water will be used for greenbelt development and process

Noise Management

- Green belt development (plantation of dense trees across the boundary) will help in reducing noise levels in the plant as a result of attenuation of noise generated due to plant operations, and transportation.
- Personal protective equipments like ear plugs and ear muffs will be provided to employees working in the noise prone areas.

- Time to time oiling and servicing and O and M of machineries will be done.
- Acoustic enclosure for Turbine and D.G. sets would be used.

Solid Waste Management

- Spent wash will be evaporated in incinerator.
- Ash from the Boiler will be sold to brick manufactures.

Odour Management

- The remedial measures will be taken such as better house-keeping by regular steaming of all fermentation equipments.
- Temperature will be kept under control during fermentation to avoid inactivation/ killing of yeast.

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

| Source | Name | Quantity In MT per day | Mode of disposal |
|---------------------------------------|-------------|---------------------------------------|---|
| Cane crushing season | | | |
| Mill House | Bagasse | 3200 | Shall be used as boiler fuel |
| Process House | Press mud | 400 | Shall be given to farmers. |
| | Molasses | 400 | Part of it shall be used in house & remaining shall be sold to other distilleries |
| Boiler house (cogen plant) | Ash | 24 | Shall be given to farmers. |
| Effluent treatment plant | Sludge | 3 | Used as manure within premises |
| Distillery Inceneration Boiler | Fly ash | 219.48 | Used as manure |

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 ToR. 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 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 integrated industry and no waste or treated water shall be discharged outside the premises.
- (iii). Total freshwater requirement shall not exceed @3.5 kL water consumption/kL alcohol produced, which will be sourced from Tungabhadra River. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within

the premises. PP shall meet 20% of the fresh water requirement from rain water harvested.

- (iv). Effluent shall be treated through ETP and no form of bio composting shall be done in the industry. Brick manufacturing unit will be installed within the plant premises for utilization of fly ash.
- (v). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vi). Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (viii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. 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 other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (x). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xii). PP shall allocate Rs. 6.00 crores towards CER and it shall be spent on villages nearby with the breakup as follows:
 - Rs 2.00 crore – Improving infrastructure in schools
 - Rs 2.00 crore – Providing drinking water facilities
 - Rs.1.00 crore – Improving infrastructure in hospitals
 - Rs. 1.00 crore- Installation of solar power

All the proposed activities under CER shall be completed before commencement of operation of the plant.

- (xiii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.
- (xiv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xv). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 47.6

Up-gradation of Facilities of Numaligarh-Siliguri Product Pipeline (NSPL) for transportation of additional products from existing 1.72 MTPA to 5.5 MTPA Assam by M/s OIL INDIA LIMITED , PIPELINE-- Amendment in Environment Clearance regarding.

[IA/AS/IND2/233759/2021, J-11011/219/2004-IA. II(I)]

The above mentioned proposal for amendment in EC has been appraised and recommended by EAC in 43rd meeting held during November 08th – 09th December, 2021. During processing ADS was raised by competent authority on the following:

- A detailed deliberation may be made regarding the proposed activities in upgradation and its likely impacts.
- Whether the proposed upgradation activities in the instant proposal can be considered as amendment in EC or should be considered as a case of expansion considering that the EC has been granted in 2005.

After deliberations, EAC opined that the instant proposal is a case of expansion as there is significant increase in capacity and PP has wrongly applied in amendment category. Therefore, EAC has decided to return the proposal in present form.

Accordingly, proposal was returned in present form.

Agenda No. 47.7

Establish a Grain Based Distillery project of 100 KLD (Ethanol) capacity alongwith 2.5 MW Power Coegenration Project at Tarachandpur, Telmar Road, Bakhtiyarpur, Patna, Bihar by M/s NEWGEN BIOFUEL PVT LTD- Re-consideration of Environment Clearance.

[IA/BR/IND2/209542/2021, J-11011/179/2021-IA-II(I)]

As per SO 1960(E) dated 13th June, 2019 all non-molasses based distilleries less than 200 KLPD capacity shall be considered by SEAC. PP has obtained ToR from centre as SEAC was not constituted at that time. However, as SEAC is functional now, EAC has informed that PP may submit the proposal at concerned SEAC and decided to return the proposal in present form.

Accordingly, proposal was returned in present form.

Agenda No. 47.8

Proposed 100 KLD Grain based Ethanol plant with ZLD along with 3 MW co-generation power plant under EBP Programme Sri Ganga Nagar, Rajasthan by M/s KARVJYA ETHNOXY PRIVATE LIMITED- Reconsideration of Environment Clearance.

[IA/RJ/IND2/240172/2021, J-11011/443/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Gaurang Environmental Solutions 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 proposed 100 KLD Grain based Ethanol plant with ZLD along with 3 MW co-generation power plant under EBP Programme Sri Ganga Nagar, Rajasthan by M/s Karvjya Ethnoxy Private Limited.

All grain based distilleries producing ethanol, solely to be used for Ethanol Blended Petrol Programme of the Government of India are listed at S.N. 5(ga) of Schedule of Environmental Impact Assessment (EIA) Notification, 2006 amendment vide S.O 2339 dated 16th June 2021 under category 'B-2' and are appraised at Central Level by Expert Appraisal Committee (EAC).

The project proposal is exempted from obtaining ToR & conducting Public Hearing as per EIA notification, 2006 amendment vide S.O 2339 dated

16th June 2021. It was informed that no litigation is pending against the project.

The details of products and capacity are as under:

| Particular | Capacity | Details |
|---------------------------|----------|---|
| Grain Based Ethanol Plant | 100 KLD | Product- Ethanol (Bio-fuel) By-product- DDGS (60 TPD) & CO ₂ (40 TPD) |
| Co-generation power plant | 3.0 MW | - |

The total land area for the Greenfield project is 49,280 sq. m. which has been duly converted for industrial use as per conversion order no. LC/2021-22/109993 dated 16/11/2021. Industry will develop greenbelt in an area of 33 % i.e. 16,262 m² out of total area of the project.

The estimated project cost is Rs 149.07 Total capital cost earmarked towards environmental pollution control measures is Rs. 26.6 Crore and the Recurring cost (operation and maintenance) will be about Rs 0.161 Crore per annum. Total Employment will be 225 persons (construction 25 & operation phase:200). Industry proposes to allocate Rs 3.0 Crore @ of 2 % towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Indira Gandhi Canal ~ 350 M towards West direction.

Total water requirement is 1414 m³/day of which fresh water requirement of 487 m³/day will be met from ground water and application for obtaining NOC from CGWA for ground water withdrawal is under process with CGWA vide application no. 21-4/16203/RJ/IND/2021 dated 21.10.2021. Remaining water requirement will be met from ETP & STP treated water to the tune of 927 KLD. Process Effluent (MEE & Dryer Condensate & Boiler & CT Blow-down) of 670 m³/day quantity will be treated through 700 KLD ETP (Anaerobic digester, aerobic system, MGF-ACF, UV, UF & RO treatment). Domestic effluent of 8.0 m³/day will be treated in STP (10 KLD). The plant will be based on Zero Liquid discharge system.

Power requirement will be 2.5 MW and will be met from Co-generation power plant of 3.0 MW. DG sets (500 KVA X 2 Nos) are proposed as standby during power failure. Stack height (5 m above roof) will be provided as per CPCB norms to the proposed DG sets. 30 TPH x 1no. Rice husk fired boiler will be installed. ESP with a stack of height of 40 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boiler.

Details of process emissions generation and its management:

- The industry will install dryers for the handling of DWGS for controlling process odors from the plant
- ESP (Electro-Static Precipitator) with Stack height of 40 m will be installed with the proposed 30 TPH Boiler to control the suspended particulate emissions due to combustion of fuel.
- CO₂ generated (40 TPD) during Fermentation Process will be scrubbed, collected and sold to vendors.
- DG Sets will have adequate stack height (5 m above roof) as per CPCB guidelines.

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

- Solid waste from the Grain based operations will be DDGS (60 TPD) which will be sold to Cattle feed manufacturers.
- Rice husk Ash from Boiler (36 TPD) will be supplied to brick manufacturers or used as manure.
- Used oil & grease (0.5 KL/annum) generated from transformers, DG set, plant machinery/gear boxes, etc. - as hazardous waste will be handed over to the CPCB authorized recyclers.
- ETP sludge will be generated to the tune of ~1 TPD.
- STP Sludge will be dried & used as manure for landscaping within premises

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion of 100 KLPD will be for manufacturing of fuel ethanol only.

During the deliberations EAC noted that Indira Gandhi Canal is passing approximately 350 m besides the proposed project. In this regard, EAC inquired PP whether Industry has taken permission from State Irrigation Department that the proposed project location is safe from flood line. PP has informed that as examined by them the location is safe from flood zone. However, EAC directed that Industry shall take NOC/permission from State Irrigation Department that the proposed project site is safe from flood zone and deferred the proposal.

Accordingly, proposal was deferred for the needful

Agenda 47.9

Expansion of Grain based Distillery from 85 KLPD to 285 KLPD and Cogeneration Power Plant from 1.5 to 9 MW by new installation of 200 KLPD Grain based Ethanol Plant at Plot no. 1 & 1A, Industrial area, Phase 111, Sansarpur Terrace, Tehsil Jaswan, Kangra, Himachal Pradesh by M/s PREMIER ALCOBEV PVT. LTD.- Reconsideration of Environment Clearance

[IA/HP/IND2/136785/2018, J-11011/550/2008-IA II(I)]

The PP/consultant intimated that due to some unavoidable reasons / circumstances and management decision, they will not be able to attend the scheduled presentation. Further, it was informed that PP is withdrawing the proposal. Therefore, EAC has decided to return the proposal in present form.

Accordingly, proposal was returned in present form.

47.10 Any other items with the permission of the Chair.

Agenda No. 47.10.1

Clarification regarding applicability of EC for production of Bitumen Emulsion, Modified Bitumen and Road Bond from Bitumen - M/s. Hindustan Colas Pvt. Ltd.-Re-consideration reg.

Earlier proposal was deliberated in 36th EAC meeting on 16th -17th June, 2021. The EAC recommendation is as follows:

Based upon the information presented by the project proponent, it was decided that the project requires Environmental Clearance for the production of Bitumen Emulsions, Modified Bitumen and Road bond from Bitumen and the project proponent shall apply for grant of ToRs followed by conduction of Public Hearing and EC application on PARIVESH portal for such type of proposals”.

Based on the inputs/observation made by EAC IA-Policy division issued a clarification vide dated 24th August, 2021.

Subsequently, M/s. Hindustan Colas Pvt., Ltd., had requested to reconsider their case in the Ministry. The request was accepted by competent authority and decided that the matter shall be placed before Expert Appraisal Committee (EAC) industry-II for re-consideration of their recommendations in reference to clarification regarding applicability of EC for the production of Bitumen Emulsions, Modified Bitumen & Road bond from Bitumen.

The proposal was considered by the EAC in its 44th meeting held on 22nd November, 2021 in the Ministry, wherein the project proponent and their consultant made detailed presentation on the project.

After detailed deliberations within the committee members, it was decided to request project proponent to make a specific presentation again particularly with regard to environmental issues such as generation of effluents, emissions, VOCL, hazardous waste, HAP's emissions if any, process safety etc., so that the project could be re-examined particularly with regard to the applicability of the EC.

The proposal was re-considered by the EAC in its 45th meeting held on 29th - 30th November, 2021 in the Ministry wherein the project proponent and their consultant made a detailed presentation on the issues.

EAC found that PP should be asked to present the proposal again. Accordingly, proposal was re-considered by the EAC in its 47th meeting held on 23rd December, 2021 in the Ministry wherein the project proponent and their consultant made detailed presentation;

After detailed deliberations; on each and every point on the presentation of PP, categorically stating that process does not involve any effluent in the entire chain of produce, still there were some concerns of few members on some issues. It was decided by the Chair, to have clarity on the concerns of the members, by inviting their concerns in writing, vide mail dated Dec. 24, 2021.

Based upon the comments received from three members (only) and rest of the members seem to be satisfied with the presentation made and the deliberations made thereafter between committee members. Points proposed by Dr. TK Joshi and by Mr. S.C. Mann and Mr. Ashok Aggarwal have been examined by dissecting and analyzing the entire process as the presentation made by the PP.

- The manufacturing process of bitumen emulsion, modified bitumen & road does not involve any of the physical, chemical or purification / treating processes carried out in petroleum industry. HINCOL does not carry out any refinery processes such as atmospheric distillation, vacuum distillation, catalytical / hydro / thermal cracking, desalting, sulphur recovery, sour water treatment, waste gases flaring etc except blending / mixing of bitumen with other ingredients.
- PP sources bitumen which is last residue in the fractional distillation process and produced in refining industry to manufacture its products. PP does not produce bitumen but only utilizes it as a main raw material in its manufacturing process. The manufacturing process and finished products of petroleum refinery and the project under discussions are distinctly different and therefore

categorization of the produces under 4(a) as Petroleum Refining Industry under Environmental Notification is not based on merit.

- Bitumen which is main raw material in manufacturing process is non-volatile in nature with flash point above 220 Deg C and is treated as an unclassified product as per the OISD (Oil Industry Safety Directorate, Govt. of India) Standard. Bitumen or Bitumen Emulsions neither pose any significant safety hazard nor significant impact on the environment as compared to other petroleum products.
- Manufacturing Emulsion involves emulsification of hot Bitumen & other components using a colloidal mill in closed circuit with automation. The colloidal mill breaks bitumen in very small globules and an emulsion of bitumen in water is produced. The entire manufacturing process is automatic and computer controlled and it does not involve physical handling of any products. **The process does not involve any chemical reactions; consequently, there is no process emission either in air or water.** Since the production plant consists of all close circuit pipelines, there is no spillage of any products. The finished product is either sent through bulk tankers or filled in 200 kg capacity drums for dispatch to work sites. Emulsion is stored, handled and applied at ambient temperature at the road construction sites unlike hot bitumen resulting in reduction in emission of burnt fuel.
- Manufacturing of Modified Bitumen involves simple heating & blending of Bitumen & Modifiers in tanks in closed system with automation. The modifiers which are in powder form are added in the required percentage to Ordinary Bitumen. The mixture is agitated in the tanks with the help of agitators for a period of 8 -10 hrs leading to preparation of Modified Bitumen. The entire process is carried out in a closed-circuit at atmospheric pressure with no chemical change to bitumen. It is just physical mixing / blending. Consequently, there is no there is no any process emission either to air or water.
- The finished good is maintained at a temperature of 140-160 deg. Centigrade and is filled in bulk tankers for dispatch to road construction sites.
- Manufacturing process of bitumen emulsion and modified bitumen does not involve generation of any liquid effluent. Project has two high efficiency thermic fluid heaters for heating of bitumen. Low Sulphur fuel (LDO) is used for these thermic fluid heaters and the flue gases are discharged through 30-meter-tall stack. Environmental monitoring is carried out periodically & the emission levels presented are well within the norms prescribed by Pollution Control Board. Minimal quantity of hazardous waste that is spent

oil is generated which is reused in the manufacturing process or disposed off through Pollution Control Board re- processor.

- Adequate process safety controls such as automation of emulsion and modified bitumen manufacturing process, storage tank levels and temperatures are monitored using radar gauges and temperature sensors. Adequate containment has been provided to all the storage tanks. PP has provided adequate firefighting system comprising of fire engines, jockey pump with hydrant network covering entire plant.
- PP has also carried out assessment of its pollution index through Projects & Development India Limited; NABET accredited EIA consultant in line with Central Pollution Control Board's modified directions under Water ACT & Air Act regarding harmonization of classification of industrial sectors under RED/Orange / Green / White categories dated 7th March 2016. Manufacturing process does not generate liquid effluent, air emissions are within limits and negligible quantity of hazardous waste is generated which is reused in the manufacturing process or disposed off through Pollution Control Board re- processor. **Therefore, the pollution index reported by PDIL is 42 indicating classification of the industry under orange category.**

In view of the above, it can be inferred that manufacturing process of bitumen emulsion, modified bitumen and road bond is distinctly different from the processes carried out in petroleum refineries and hence categorizing it as Petroleum Refining industry is not appropriate. The manufacturing process does not generate any liquid effluents, adequate controls are in place and flue gas emissions are monitored & within the stipulated norms. Fugitive emissions from process are minimal and within the limits. Hazardous waste is minimal and is reused or disposed off through PCB approved re- processor. Manufacturing process has adequate process safety controls.

Bitumen is a raw material from the refinery. Bitumen from the refinery undergoes intense scrutiny with respect to environmental issues. Also, the project is merely resumption of the existing plant in the same area with no any change in products or processes.

After examination of all issues particularly with regard to unit operations and unit processes in Bitumen Emulsion, modified Bitumen and Road Bond, with respect to liquid effluents, air emissions, VOCL, HAP's emissions Safety aspect, etc. the project do not attract the need of Environment Clearance. However, applicable guidelines of Center Pollution Control Board as well as State Pollution Control Board will remain applicable with respect to Hazardous storage and waste disposal.

In view of the above, the project should be exempted from Environment Clearance.

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, ZillaParishad/Municipal Corporation, Urban local Body and the local NGO, if any, from

whom suggestions/ representations, if any, were received while processing the proposal.

- (vii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- (viii) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.
- (ix) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <https://parivesh.nic.in/>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- (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

| S. No. | Name and Address | Designation |
|---------------|---|---------------------|
| 1. | Dr. J. P. Gupta | Chairman |
| 2. | Sh. R.K. Singh | Member |
| 3. | Dr. Y.V. Rami Reddy | Member |
| 4. | Dr. T. Indrasena Reddy | Member |
| 5. | Sh. S. C. Mann | Member |
| 6. | Sh. Ashok Agarwal | Member |
| 7. | Dr. T. K. Joshi | Member |
| 8. | Dr. J. S. Sharma | Member |
| 9. | Sh. Sanjay Bist, IMD | Member |
| 10. | Sh. Ashok Kr. Pateshwary, Director, MoEFCC | Member Secretary |
| MoEFCC | | |
| 11. | Dr. Mahendra Phulwaria | Scientist 'C' |
| 12. | Sh. Kanaka Teja | Research Assistant |
