

MINUTES OF THE 43rd EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 26-27 November, 2018

Venue: Indus Hall, Ground Floor, Jal Wing, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi - 3.

Time: 10:30 AM

43.1 Opening Remarks by the Chairman

43.2 Confirmation of the Minutes of the 42nd Meeting of the EAC (Industry-2) held during 29-31 October 2018 at Indira Paryavaran Bhawan, New Delhi.

The EAC, having taken note that no comments were offered on the minutes of its 42nd meeting held on 29-31 October, 2018 at New Delhi, confirmed the same.

Day One: 26th November, 2018

43.3 Environmental Clearance

Agenda No.43.3.1

Expansion & Modernization of Molasses Based Distillery (30 to 100 KLPD) along with installation of 5 MW Co-Generation Power Plant at Bijour (Uttar Pradesh) by M/s Dwarikesh Sugar Industries Limited - For Environmental Clearance

[IA/UP/IND2/30866/2003, J-11011/256/2015-IA.II(I)]

43.3.1.1 The project proponent and their Consultant M/s J M EnviroNet Pvt Ltd (JMEPL) made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project for Expansion of Molasses based Distillery (30 KLPD to 100 KLPD) and installation of 5 MW Co-generation power plant at Dwarikesh Nagar, Village Bundki, Tehsil Nagina, District Bijour (UP) by M/s Dwarikesh Sugar Industries Limited

(ii) The Terms of reference (ToRs) has been issued by Ministry vide letter No. J-11011/256/2015-IA II (I); dated 11th March, 2018 with public consultation. The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 37th meeting held during 29-31 May, 2018 for amendment in ToR and recommended amended Terms of References (ToRs) for the Project without public consultation.

(iii) All distilleries are listed at S. No. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Ministry had issued EC earlier vide letter no. J-11011/35/2004-IA-II dated 24th June, 2004 for its existing 30 KLPD Molasses based Distillery. In 2015, the industry applied for expansion and modernization of this distillery from 30 to 60 KLPD along with installation of 2.1 MW Co-Generation Power plant and obtained EC from ministry for the same vide letter no J-11011/256/2015-IA-II (I) dated 28th March, 2017 in favour of M/s Dwarikesh Sugar Industries Limited. For adoption of better treatment technology (bio-composting to incineration route), the

company didn't install 60 KLPD and is now proposing installation of 100 KLPD instead of 60 KLPD.

(v) Existing land area is 9.9 Ha. Proposed expansion & installation will be done within existing plant premises. Industry has already developed greenbelt in an area of 33% i.e. 3.26 Ha out of total area of the distillery i.e. 9.9 ha and same will be maintained.

(vi) The estimated project cost is Rs 80 Crores (for expansion project). Total capital cost earmarked towards environmental pollution control measures is Rs 40 Crores and the Recurring cost (operation and maintenance) will be about Rs 2 crores per annum.

(vii) Total Employment will be 100 persons as direct & 220 persons indirect after expansion. Industry proposes to allocate Rs. 80 lakhs @ of 1 % towards Corporate Environment Responsibility as per latest circular of CER dated 1st May, 2018. Operating days will be 350 days.

(viii) There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Pelkhala Nadi is flowing at a distance of 2 km in North direction, Nagina Canal flowing at a distance of 2.5 km in SE direction, Gangan Nadi flowing at a distance of 3 km in WNW and Khoh River is flowing at a distance of 7 km in East direction.

(ix) Ambient air quality monitoring was carried out at 8 locations during March to May 2018 and the baseline data indicates the ranges of concentrations as: PM₁₀ (63.9 to 88.2 µg/m³), PM_{2.5} (28.7 to 46.1 µg/m³), SO₂ (6.2 to 12.9 µg/m³) and NO₂ (13.2 to 23.8 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the project would be 0.27 µg/m³, 2.52 µg/m³ and 3.41 µg/m³ with respect to PM₁₀, SO₂ and NO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(x) Total water input will be 2173 KLPD (after expansion) of which fresh water requirement of 740 m³/day will be met from Ground water. After expansion, effluent of 950 KLD quantity will be treated through ETP completely and recycled & reused in plant itself. The plant will be based on Zero Liquid discharge system.

(xi) Power requirement after expansion will be 3.0 MW including existing 0.6 MW and will be met from proposed 5 MW Co-generation power plant. 2 DG sets of 600 KVA capacity have been proposed to be installed after expansion to be used as standby during power failure. Stack (height 15 m) will be provided as per CPCB norms to the proposed DG sets.

(xii) 40 TPH concentrated spent wash & rice husk/bagasse/coal fired incineration boiler will be installed. Electrostatic precipitator with a stack height of 70 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boilers.

(xiii) Details of Process emissions generation and its management

Source	Emissions	Management
Boiler	Particulate matter, SO ₂ , NO _x	Adequate stack height of 70 m. Electrostatic precipitator as air pollution control equipment. Necessary temperature profile will be maintained in boiler.
Fermentation	Carbon dioxide	Carbon di-oxide will be collected through CO ₂ scrubbers and sold to authorized vendors.

(xiv) Details of Solid waste/ Hazardous waste generation and its management: Existing Spent wash treatment method - Spent Wash generated during the process, is being first treated in Bio-Digester (Bio- Methanation) is being followed by Multi-effect evaporator and then used for Bio-composting.

After proposed expansion Spent wash treatment method - Spent wash generated will be concentrated in Multi-effect evaporator and then used as fuel in incineration boiler. Sludge will be mixed with press mud for manufacturing organic manure (bio-composting).

Process condensate from MEE is being/will be treated and recycled back in the Fermentation process and as makeup water.

Ash from the boiler will be supplied to brick manufacturers or given to farmers for soil amelioration. ETP sludge is being/will be used as manure.

Used oil generated from the plant machinery/ gear boxes as hazardous waste is being /will be sold out to authorized recyclers.

(xv) The EAC has recommended for exemption from public hearing as per the provisions contained in Para 7(ii) of the EIA Notification, 2006.

Reason for Exemption from Public Hearing:- Public Hearing for the earlier project, “Molasses Based Distillery (30 to 60 KLPD) along with installation of Co-Generation Power Plant (2.1 MW)” at Dwarikesh Nagar, Village Bundki, Tehsil Nagina, District Bijnor, Uttar Pradesh was conducted on 20th July, 2016 at Plant Site.

(xvi) Details of Certified compliance report :EC certified compliance report vide letter No. – IV/Env/UP/Ind-74/190/2006/13 dated 12th April, 2016 has been certified by MoEFCC, Regional office (Lucknow) and site visit was conducted on 22nd Jan., 2016.

(xvii) No Litigation is pending against the proposal.

(xviii) The details of products and capacity as under:

Units	Products & by products	Existing	Additional	After expansion
Molasses Based Distillery	<i>Products:</i> - Ethanol/ Extra Neutral Alcohol(ENA)/ Rectified Spirit (RS)/ Absolute Alcohol (AA) <i>By Product:</i> - CO2	30 KLPD	70KLPD	100KLPD
Co-Generation Power Plant	Power	NIL	5.0 MW	5.0 MW

43.3.1.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for expansion of molasses based Distillery from 30 KLPD to 100 KLPD and installation of 5 MW Co-generation power plant by M/s Dwarikesh Sugar Industries Limited in a total area of 9.9 ha at Dwarikesh Nagar, Village Bundki, Tehsil Nagina, District Bijnor (UP).

The project/activity is covered under category A of item 5 (g) ‘Molasses based distilleries’ of the Schedule to the Environment Impact Assessment Notification, 2006 and requires appraisal at Central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 11th March, 2018. In view of the last public hearing held on 20th July, 2016 conducted by the SPCB for the earlier proposed expansion of distillery from 30 to 60 KLPD, the instant project was exempted from fresh public hearing as per recommendations of the EAC in exercise of the provisions of para 7 (ii) of the EIA Notification, 2006.

Total water requirement after expansion is estimated to be 2173 cum/day, including fresh water requirement of 740 cum/day proposed to be met from Ground water. Permission for ground water withdrawal of 740 cum/day has been obtained from the Central Ground Water Authority vide letter dated 22nd November, 2016.

Effluent of 950 cum/day will be treated through ETP and treated water will be reused in the plant. Spent wash of 1015 cum/day will be treated in Multi-effect evaporator (MEE) followed by incineration in boiler. Filtered sludge will be mixed with press mud for manufacturing organic manure. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

The expenditure towards CER for the project would be 1% of the project cost as committed by the project proponent.

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.

Earlier, the Ministry had issued EC vide letter dated 24th June, 2004 for setting up 30 KLD distillery by M/s Dwarikesh Sugar Industries Limited at Village Bundaki, District Bijnor (UP). Later, the project for modernization cum expansion of the distillery from 30 to 60 KLPD along with installation of co-generation power plant (2.1 MW) was granted EC by the Ministry on 28th March, 2017. It has been informed that the proposed expansion project was not implemented. Now due to adoption of better treatment technology (bio-composting to incineration route), it is proposed to enhance production capacity up to 100 KLPD instead of 60 KLPD proposed earlier. The monitoring report on compliance status of EC conditions (site visit conducted on 22nd January, 2016) was forwarded by the Regional Office at Lucknow vide their letter dated 12th April, 2016.

Consent to Operate for the present capacity of 30 KLPD issued by Uttar Pradesh PCB vide letter dated 16th January, 2018, is valid up to 31st December, 2019.

PESO has given approval vide letter dated 4th April, 2017 for the site and layout plan of storage (Petroleum storage Class A installation) to enable the mandatory licence in Form XV as per the Petroleum Rules, 2002.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*

- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Total fresh water requirement shall not exceed 740 cum/day proposed to be met from ground water. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.*
- *The spent wash shall be taken to MEE and the concentrated spent wash shall be incinerated in the boiler.*
- *The distillery shall be operated for 350 days/ year as proposed.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.*
- *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 Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *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.*
- *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.*
- *At least 1% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *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.*
- *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*
- *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.*
- *CO₂ generated from the process shall be bottled/made solid ice and sold to authorized vendors.*

- *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.*

Agenda No.43.3.2

Setting up 60 KLPD sugarcane and molasses based distillery at Gat No. 3729/1 to 20 Village Kameri Taluka Walawa, District Sangli (Maharashtra) by M/s Maruti Shetkari Asavani Ltd - For Environmental Clearance

[IA/MH/IND2/75222/2016, J-11011/327/2016-IA.II (I)]

43.3.2.1 The project proponent and their Consultant M/s SMS Envocare Ltd made a detailed presentation on the salient features of the project and informed that:

- (i) The proposal is for environmental clearance to the project for setting up 60 KLPD Molasses and Sugarcane juice based Distillery at Gat No.3729/1 to 20, Village Kameri, Taluka Walawa, Dist. Sangli (Maharashtra) by M/s Maruti Shetkari Asavani Limited.
- (ii) The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 16th meeting held during 8th to 9th December, 2016 and recommended Terms of References (ToRs) for the project. The ToR has been issued by Ministry vide letter No.J-11011/327/2016-IA-II (I) dated 25th April, 2017.
- (iii) All Molasses based 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).
- (iv) The estimated project cost is Rs 85.325 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs 935.0000 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 52.00 Lakh per annum. Total Land Area is 129503 Sq. M and proposed green Belt Area is 69303 Sq. M.
- (v) Total Employment will be 100 Persons. Industry proposes to allocate Rs. 2.1 Crore @ of 2.5 % of Total project cost towards Corporate Social Responsibility.
- (vi) There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River Waranais flowing at a distance of 10.48 km towards SW.
- (vii) Ambient air quality monitoring was carried out at 8 locations during 1st March 2017 to 31st May 2017 and the baseline data indicates the ranges of concentrations as: PM10(29.76 $\mu\text{g}/\text{m}^3$), PM2.5(12.06 $\mu\text{g}/\text{m}^3$), SO₂(7.56 $\mu\text{g}/\text{m}^3$) and NO_x (16.02 $\mu\text{g}/\text{m}^3$). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.24 $\mu\text{g}/\text{m}^3$, 0.42 $\mu\text{g}/\text{m}^3$, 21.65 $\mu\text{g}/\text{m}^3$ and 24.92 $\mu\text{g}/\text{m}^3$ with respect to PM2.5, PM10, SO_x and NO_x respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).
- (viii) After recycling the generated wastewater in the process, daily fresh water requirement is 485 CMD which will be sourced from Warana River. Spent wash will be treated in integrated evaporator followed by incineration boiler (Slop Fired Boiler). Plant will be based on ZLD.

(ix) Concentrated spent wash of 171.10 TPD quantity with 55% w/w solids will be concentrated in multi effect evaporator/ integrated evaporation followed by spent wash fired boiler. Spent lees will be recycled in the process. Process condensate will be treated in Condensate Polishing unit. Cooling tower and boiler blow down water will be used for green belt to reduce the fresh water requirement.

(x) Details of Process emissions generation and its management.

Air pollution during construction phase will be due to material handling, dust emission, vehicular movement and emission from machinery. Air emissions/pollution during operation phase will be mainly from flue gases manufacturing process, material & Ash handling and from vehicular movement.

Necessary preventive measures shall be taken during construction phase so that the ambient air quality will conform to National Ambient Air Quality standards.

To avoid the generation of dust emission water sprinklers will be provided to suppress the dust. ESP will be provided to the proposed stack of 58m height to control the particulate matter emission into the air as main pollution control measures.

This boiler shall run on coal and concentrated spent wash. Water sprinkler will be provided at coal stack pit and ash disposal area to control fugitive emission.

Work zone area including internal roads in the plant will be asphalted or concreted. Water spraying system will be installed for regular spraying of water on road and work zone to minimize fugitive dust emission.

(xi) Details of Solid waste/ Hazardous waste generation and its management:

Solid/ Hazardous waste generation quantification and disposal mechanism are given below:

Sr. No.	Solid Waste	Quantity	Disposal
1	Yeast sludge	9.6 TPD	Shall be used as a manure
2	Ash	Coal ash: 22.4 TPD Spent wash ash: 24.3 TPD	Spent wash ash is potash rich ash and can be used directly as manure. Ash will be stored in the ash silos, Coal ash will be separately collected in the ash silos and sent to brick manufacturer
3	Domestic waste	15-20 kg/d	Local waste collection system
4	Oil from DG	Negligible	To authorized dealer or mixed with coal and burnt in the boiler
5	Discarded drums and containers	Negligible	Will be sold to authorized Recyclers

(xii) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 08th November, 2017. The main issues raised during the public hearing are related to Pollution Controlling, Employment, Safe Disposal of Spent wash, Ash and other Solid/ hazardous waste. Project proponent has committed to ensure the safe management of spent

wash, Ash, Other Solid Waste. ESP has been provided to ensure effective air pollution control. Thick green belt covering 33% of total plot area is secured for Green Belt development. Company has also committed to ensure its Corporate Social Responsibility and identified 2.5% of total project cost for activities related with social development. The project is welcomed by the local public.

(xiii) Status of Litigation Pending against the proposal, if any: There is no litigation pending against the project.

(xiv) The details of products and capacity as under:

S. No	Product Details	Existing Quantity	Proposed Quantity	Total Quantity
1	Rectified spirit(RS)	-	60 KLPD	60 KLPD
Or				
2	Absolute Alcohol (AA)	-	60 KLPD	60 KLPD
Or				
3	Extra Neutral Alcohol (ENA)	-	60 KLPD	60 KLPD

43.3.2.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for setting up 60 KLPD Molasses and Sugarcane juice based Distillery by M/s Maruti Shetkari Asavani Limited in a total area of 129503 sqm at Gat No.3729/1 to 20, Village Kameri, Taluka Walawa, District Sangli (Maharashtra).

The project/activity is covered under category A of item 5 (g) 'Molasses based distilleries' of the Schedule to the Environment Impact Assessment Notification, 2006 and requires appraisal at Central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 25th April, 2017. Public hearing was conducted by the Maharashtra State Pollution Control Board on 8th November, 2017 under the chairmanship of the Deputy Collector, Sangli, as authorized by the District Magistrate, Sangli. However, in view of the provisions contained in the EIA Notification, 2006 regarding public consultation/hearing to be chaired by the officer not below the rank of Additional District Magistrate, it was desired to have a clarification from the project proponent in this regard.

Total water requirement is estimated to be 1183 cum/day, including fresh water requirement of 485 cum/day proposed to be met from Warana River, which will be reduced to 360 cum/day (6KL/KL of alcohol). Permission for surface water withdrawal of 11.25 lakhs litres/day from Warana River has been obtained from the Irrigation Division, Government of Maharashtra vide letter dated 14th December, 2015.

Spent wash of 650 cum/day will be treated in integrated evaporator followed by incineration in slop fired boiler. Effluent of 532 cum/day will be treated in RO based CPU and reused in the process/cooling tower. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

The expenditure towards CER for the project would be 2% of the project cost as committed by the project proponent.

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. Issues raised during the public hearing have been duly addressed by the project proponent.

Application for prior approval of licence to import and store petroleum/ethanol has been submitted to O/o Chief Control of Explosives/PESO vide letter dated 23rd October, 2018.

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

- *Prior approval shall be obtained from the Petroleum & Explosives Safety Organization (PESO) for the site and layout plan submitted to this Ministry along with the proposal for EC. In case of any change therein post PESO approval, the proposal shall require fresh appraisal by the sectoral EAC.*
- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Total fresh water requirement shall not exceed 360 cum/day proposed to be met from Warana River. Prior permission shall be obtained from the concerned regulatory authority in this regard.*
- *The spent wash shall be taken to integrated evaporator and the concentrated spent wash shall be incinerated in the slop fired boiler.*
- *The distillery shall be permitted to operate for 330 days as proposed.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.*
- *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 Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *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.*
- *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.*

- All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.
- At least 2% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- 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.
- Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- 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.
- CO₂ generated from the process shall be bottled/made solid ice and sold to authorized vendors.
- 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.

Agenda No.43.3.3

Expansion of Distillery unit from 120 KLPD to 150 KLPD and co-generation Power plant 5MW at Sy No.18, 19 at Malapur Village, Mudhol Taluka, Bagalkot District (Karnataka) by M/s Nirani Sugars Ltd (Distillery Division) - For Environmental Clearance

[IA/KA/IND2/81992/2009, J-11011/290/2017-IA-II (I)]

43.3.3.1 The project proponent and their consultant M/s Environmental Health and Safety Consultants Pvt Ltd, gave a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project for expansion of 120 KLPD Distillery to 150 KLPD and 5 MW/Hr Power from incineration boiler at Sy No.18, 19 of Malapur Village, Mudhol Taluk, Bagalkot District, Karnataka State, India by M/s Nirani Sugars Ltd.

(ii) The project proposal was considered by expert Appraisal Committee (Industry-2) in its 25th EAC meeting held during 5-7 July 2017 and recommended terms of references (TORs) for the project. The TOR has been issued by Ministry's vide letter number: J-11011/290/2017-IA-II(I) dated 11-08-2017 (in case of EC proposal)

(iii) All molasses based distillery 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)

(iv) Ministry has issued EC earlier vide letter no. J-11011/130/2008-IA-II(I); dated 04.12.2009 for establishment of 120KLPD molasses based distillery at Mudhol, Bagalkot district Karnataka by M/s Nirani Sugars Ltd.

(v) Existing land area is 29 Acres; expansion will be undertaken within the premises. Industry has already developed Greenbelt in an area of 33% i.e., 9.57 Acres (3.87 Ha) out of 29 Acres (11.74Ha) of area of the project

(vi) The estimated project cost is Rs. 126.93 Crores (for expansion investment is Rs. 30 Crores) including existing investment of Rs.96.92 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.29.59 Crores (Rs.29.51 Crores already spent during 120 KLPD establishment) and the Recurring cost (operation and maintenance) will be about Rs. 54 Lakhs per annum

(vii) Total employment will be 120 persons as direct and 30 persons indirect after expansion. Industry proposes to allocate Rs.75 Lakhs @ of 2.5 % towards corporate social responsibility.

(viii) There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc., within 10 kms distance from the project site. Ghataprabha River is flowing at a distance of 3.5 kms in S direction.

(ix) Ambient air quality monitoring was carried out at 8 locations during October to December, 2017 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (44 µg/m³- 74 µg/m³), PM_{2.5} (10 µg/m³ - 25µg/m³), SO₂ (7.80 µg/m³-9.96µg/m³) and NO₂ (15.14 µg/m³-19.22µg/m³) respectively. AAQ modeling study for the point source emissions indicates that the maximum incremental GLC after the proposed project would be 2.2 µg/m³,0.8µg/m³ and 1.3 µg/m³ with respect to PM₁₀, SO_xand NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). (in case of EC proposal)

(x) Total water requirement is for distillery section total of 1865 KLD and of which fresh water requirement of 1200m³/day and will be met from Ghataprabha River.

(xi) Effluent of 661 KLD from distillery section will be treated through ETP Plant of 1000 KLD and 700 KLD of CPU installed for the treatment of condensate. Spentwash will be concentrated and used as fuel in the incineration boiler. The plant will be Zero Liquid discharge system

(xii) Power requirement after expansion will be 2.1 MW/Hr including existing 1.5 MW/hr and it will be met from existing incineration boiler. Existing unit has 1000KVA DG set capacity used as standby during power failure. Stack (height 3 m ARL) provided as per CPCB norms to the proposed DG set. No additional DG set required.

(xiii) Existing unit has 32TPH 30% coal and 70 % concentrated spent wash fired boiler installed. No additional requirement of boiler. ESP with stack height of 80 mtrs installed for controlling the particulate emissions (within statutory limit of 115mg/Nm³).

(xiv) Details of Process emissions generation and its management: Process emissions generation from 30 % coal and 70 % concentrated spent wash fired boiler connected with ESP.

(xv) Details of solid waste/ Hazardous waste generation and its management:

Sl No	Solid waste	Quantity TPD	Method of collection	of	Mitigation measures for handling and disposal
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				Method of Storage	Mode of disposal
Solid waste					
1	Boiler- Ash	45	Mechanical conveyor into common silo for further disposal	Ash storage yard with sprinkling arrangement	Will be supplied to Brick/Cement Manufacturing Units.
2	Sludge from ETP	0.1	Sludge drying beds	Lined Bio compost yard	Used as manure after composting.
3	Domestic solid waste	35 Kg/d	Collection bins	Segregated. Domestic organic solid waste will be composted, while the inorganic solid waste will be handed over to Mudhol Gram Panchayath.	Nearby municipal agencies & recyclers.
4	Yeast Sludge	17	Through decanter	Lined Bio compost yard	Used as manure after composting.
Hazardous waste					
5	Used oil from DG set	100 lts/ A	Stored in leak proof sealed barrels	Hazardous waste storage area	Used as lubricants within the industry

(xvi) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 29-06-2018. The main issues raised during the public hearing are related to proper management of APC, Effluent management, employment opportunities.

(xvii) Details of Certified compliance report submitted by RO, MoEF&CC– Certified compliance report obtained from RO, MoEF& CC for the site visit dated 24-11-2016 and 07-12-2017 and Latest report enclosed as annexure

(xviii) Status of Litigation pending against the proposal if any - No litigation against the project.

(xix) The details of products and capacity as under:

Sl.No	Products details	Existing Quantity	Proposed Quantity	Total Quantity
1	RS/Ethanol/ ENA- Total sprit	120KLPD	30KLPD	150KLPD
2	Power	5 MW/Hr		5 MW/Hr

43.3.3.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for expansion of molasses based distillery from 120 KLPD to 150 KLPD along with 5 MW Power Plant by M/s Nirani Sugars Ltd in a total area of 29 acres at Sy No.18, 19 of Village Malapur, Taluk Mudhol, District Bagalkot (Karnataka).

The project/activity is covered under category A of item 5 (g) 'Molasses based distilleries' of the Schedule to the Environment Impact Assessment Notification, 2006 and requires appraisal at Central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 11th August, 2017. Public hearing was conducted by the Karnataka State Pollution Control Board on 29th June, 2018.

Total water requirement is estimated to be 1865 cum/day, including fresh water requirement of 1200 cum/day proposed to be met from Ghataprabha River. Permission for surface water withdrawal of 128 Mcft/year for a period of 5 years from Ghataprabha River has been obtained from the Karnataka Neeravari Nigam Ltd, Government of Karnataka vide letter dated 23rd October, 2017.

Effluent of 661 KLD will be treated through ETP and CPU. Spent wash will be concentrated and incinerated in boiler. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Earlier, the Ministry has issued EC vide letter dated 4th December, 2009 for establishment of 120 KLPD molasses based distillery at Mudhol, District Bagalkot (Karnataka) by M/s Nirani Sugars Ltd. The monitoring report on compliance status of EC conditions has been forwarded by the Regional Office vide letter dated 24th January, 2018, after conducting site visit on 7th December, 2017.

Consent to Operate for the present capacity of 120 KLPD issued by Karnataka State PCB vide letter dated 16th February, 2017, is valid up to 30th June, 2021

Application for prior approval of licence to import and store petroleum/ethanol has been submitted to O/o Chief Control of Explosives/PESO vide letter dated 12th November, 2018.

43.3.3.3 *The EAC, after deliberations and taking note of public hearing proceedings, observed that the waste/treated water from the distillery was being discharged outside and thus not resorting to Zero Liquid Discharge. That has reportedly affected agriculture in the surrounding area, and for that, concerns were raised during the public hearing.*

Further, the Committee in view of fresh water consumption on higher side (10 kl/kl of alcohol), desired for clarifications/inputs in respect of the following: -

- *Revised water balance plan with reduction in fresh water requirement at 6KL/KL of alcohol.*
- *Effluent treatment plan and commitment to achieve zero liquid discharge system*
- *Response and commitment on the issues raised during public hearing*
- *Plan for Corporate Environment Responsibility.*

The proposal was deferred for the needful on the above lines.

Agenda No.43.3.4

Expansion of 100 KLPD molasses based distillery up to 300 KLPD multifeed distillery and 86.4 KLPD IMFL bottling plant up to 216 KLPD at POST- Yadrav, Tal- Raibag, District- Belgavi (Karnataka) M/s Hermes Distillery Pvt Ltd- For Environmental Clearance

[IA/KA/IND2/57292/2014, J-11011/143/2014-1A II (I)]

43.3.4.1 The project proponent and the accredited Consultant M/s Equinox Environments (I) Pvt Ltd gave a detailed presentation on the salient features of the project and informed that:

- (i) The proposal is for environmental clearance to the project for expansion of 100 KLPD molasses based distillery up to 300 KLPD and 86.4 KLPD IMFL Bottling plant up to 213 KLPD at Post Yadrav, Tal. Raibag, Dist. Belgavi, Karnataka State by M/s Hermes Distillery Pvt Ltd (HDPL).
- (ii) The standard ToRs has been issued by Ministry vide letter no. J-11011/424/2017/IA II (I) dated 25th January 2018.
- (iii) All molasses based distilleries and grain based distilleries having capacity above 60 KLPD are listed at S.N. 5 (g) (i) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).
- (iv) Ministry has issued EC earlier vide letter no. J-11011/143/2014-I II (I); dated 31st January 2017 for 100 KLPD molasses based distillery, 13 MW co-gen plant and 86.4 KLPD IMFL bottling plant of Hermes Distillery Pvt. Ltd. (HDPL), At Post: Yadrav, Tal.: Raibag, Dist.: Belgavi, Karnataka.
- (v) Total plot area acquired by industry is 7.2 Ha. Existing built up area of industry is 3.16 Ha. After expansion of distillery 1.7 Ha. built-up area will be increased.
- (vi) Industry has already developed Green belt in an area 0.9 Ha. (13% of total plot area). HDPL will develop an area of about 1.6 Ha. (22.5%). Total green belt will be 35.5% of total plot area.
- (vii) The estimated cost for expansion of distillery is Rs. 153 Crores and that of existing unit of Rs. 153 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 86.45 Crores and the Recurring cost (operation and maintenance) will be about Rs. 7.2 Crores per annum.
- (viii) Total Employment will be 153 persons as direct as well as indirect for expansion. Industry proposes to allocate Rs.4.40 Crores @ of 2.8 % towards Corporate Environmental Responsibility.
- (ix) There are no National Parks, Wild life Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 Km distance from the project site. River Krishna is flowing at a distance of 5 Km in East Direction.
- (x) Ambient air quality monitoring was carried out at 8 locations during March to October 2017 – December 2018 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (47.92-58.76 µg/m³), PM_{2.5} (16.33 – 22.30 µg/m³), SO₂ (26.74 – 35.47 µg/m³) and NO₂ (33.14 – 50.10 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.32 µg/m³, 0.08 µg/m³ and 4.07 µg/m³ with respect to PM₁₀, PM_{2.5} and SO₂ respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).
- (xi) Total water requirement for 300 KLPD distillery after expansion will be 3155 M³/Day for industrial purpose and 20 M³/Day for domestic purpose. Out of 3155 M³/Day water requirement; 1181 M³/Day will be fresh water taken from River Krishna while 1999 M³/Day (63% recycle) will be treated water from distillery CPU and recycled lees from grain based distillery.
- (xii) Effluent generated from molasses based distillery in the form of spentwash, spentlees and other effluents. After expansion total capacity of molasses based distillery will be 200

KLPD. Raw spentwash generated from 200 KLPD molasses based distillery will be to the tune of 1560 M³/Day. After concentration of same Multiple Effect Evaporator (MEE) quantity of Conc. spentwash will be 516 M³/Day. Other effluents viz. spentlees @ 240 M³/Day, MEE condensate 1044 M³/Day and other effluent from molasses based distillery @ 159 M³/Day and 60 M³/Day from grain based distillery will treat in upgraded existing CPU. Treated water from CPU will be recycled in process for dilution of molasses. This achieves Zero Liquid Discharge (ZLD) of effluent.

(xiii) Power requirement after expansion will be 7 MW including 3.5 MW and same will be met from own co-gen power plant. HDPL give remaining 6 MW electricity to Karnataka Power Transmission Corporation Ltd. grid. Under existing project complex 2 DG sets of 500 KVA are installed. Under expansion one DG set of 625 KVA will be installed on site. DG sets are used as standby during power failure. Stack (height 7 M.) is provided as per CPCB norms to the existing DG set.

(xiv) Existing unit has 35 TPH coal and conc. spentwash fired boiler. Additionally 75 TPH coal and conc. spentwash fired boiler will be installed under expansion. Electrostatic Precipitator (ESP) with stack height of 90 M will be installed for controlling the particulate emission within the statutory limit of 115 mg/Nm³ for the propose boiler.

(xv) Details of Process emissions generation and its management.

No.	Process Emissions	Existing Quantity	After Expansion Quantity	Disposal
	Carbon Dioxide	70 MT/D	140 MT/D	Compressed, Bottled and sold to Beverage industries

(xvi) Details of Solid waste/ Hazardous waste generation and its management.

Details of Solid waste generated & its management

Sr. No.	Molasses Based Distillery	Quantity (MT/M)		Disposal
		Existing	Expansion	
	Yeast Sludge	600	600	Burnt in Boiler
	Boiler ash	1350	3100	Sold to Brick manufacturer
	CPU Sludge	1	1	Burnt in Boiler

Details of Hazardous waste generated & its management

Sr. No.	Hazardous Waste Category	Quantity (Lit/M)		Disposal
		Existing	Expansion	
1.	Spent Oil – Cat.5.1	50	---	Burnt in Boiler

(xvii) Public Hearing for the proposed project was conducted by the Karnataka State Pollution Control Board (KSPCB) on 11.07.2018. Issues raised are related to provision of health care facilities, employment to local people, supply of boiler ash in subsidiary rate etc.

(xviii) Details of Certified compliance report submitted by RO, MoEF& CC: RO MOEFCC report No. F. No. EP/12.1/2016-2017 /10/KAR 436 dated 26.06.2018.

(xix) No any litigation is pending against Hermes Distillery Pvt. Ltd. (HDPL) located at At Post: Yadrav, Tal.: Raibag, Dist.: Belgavi, Karnataka.

(xx) Following are the list of existing and proposed products:

Details of existing and proposed products of the Distillery

Industrial Unit	Product	Quantity		
		Existing (100 KLPD)	Expansion (200 KLPD)	Total (300 KLPD)
Distillery	Rectified Spirit (RS)	100 KLPD	200 KLPD	300 KLPD
	Extra Neutral Alcohol (ENA)	100 KLPD	200 KLPD	300 KLPD
	Ethanol	100 KLPD	200 KLPD	300 KLPD
	IMFL Bottling Plant	86.4 KLPD	129.6 KLPD	216 KLPD
Co-gen	Power	13MW	----	13 MW
	By-products			
	CO ₂	2100 MT/M	4200 MT/M	6300 MT/M
	Fusel Oil	50 Lit/M	100 Lit/M	150 Lit/M
Industrial Unit	Product	--	Proposed Grain based distillery	Total Grain based distillery
Distillery	DWGS	---	15000 MT/M	15000 MT/M
	DDGS	---	3000 MT/M	3000 MT/M

43.3.4.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for expansion of molasses based distillery from 100 KLPD to 300 KLPD (molasses based 200 KLPD and grain based 100 KLPD) by M/s Hermes Distillery Pvt Ltd (HDPL) in a total area of 7.2 ha at Post Yadrav, Taluka Raibag, District Belgavi (Karnataka).

The project/activity is covered under category A of item 5 (g) 'Distilleries' of the Schedule to the Environment Impact Assessment Notification, 2006 and requires appraisal at Central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 25th January 2018. Public hearing was conducted by the Karnataka State Pollution Control Board on 11th July, 2018.

Total water requirement after expansion is estimated to be 3155 cum/day, including fresh water requirement of 1181 cum/day proposed to be met from Krishna river. Treated effluent of 1999 cum/day will be reused in the process/plant. Permission for surface water withdrawal of 0.019 TMC per year has been obtained from the Irrigation Department, Government of Karnataka vide letter dated 27th December, 2016.

Entire spent wash will be treated through multi effect evaporators (MEE) followed by incineration in boiler. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

The expenditure towards CER for the project would be 1% of the project cost as committed by the project proponent.

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. Issues raised during the public hearing have been duly addressed by the project proponent.

Earlier, the Ministry has issued EC vide letter dated 31st January 2017 for setting up 100 KLPD molasses based distillery, 13 MW co-gen plant and 86.4 KLPD IMFL bottling plant in favour of M/s Hermes Distillery Pvt Ltd (HDPL) at Post Yadrav, Taluka Raibag, District Belgavi (Karnataka). The monitoring report on compliance status of EC conditions (site visit conducted on 29th May, 2018) has been forwarded by the Regional Office at Bangalore vide their letter dated 26th June, 2018.

Consent to Operate for the present capacity of 100 KLPD has been obtained from the Karnataka State PCB vide letter dated 1st December, 2016, which is presently valid up to 30th June, 2021

PESO has given approval vide letter dated 19th November, 2018 for the site and layout plan of storage (Petroleum storage Class A installation) to enable the mandatory licence in Form XV as per the Petroleum Rules, 2002.

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

- *Grains unfit for human consumption shall only be used.*
- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Total fresh water requirement shall not exceed 1181 cum/day proposed to be met from Krishna river. Prior permission shall be obtained from the concerned regulatory authority in this regard.*
- *The spent wash shall be taken to multi effect evaporators (MEE) and the concentrated spent wash shall be incinerated in the boiler along with bagasse.*
- *The distillery shall be permitted to operate 330 days per year as proposed.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.*
- *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 Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *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.*

- *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.*
- *All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.*
- *At least 1% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *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.*
- *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*
- *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.*
- *CO₂ generated from the process shall be bottled/made solid ice and sold to authorized vendors.*
- *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.*

Agenda No.43.3.5

Setting up pesticide technical & intermediates unit at Plot No.D-2/11/B/3/2, GIDC Dahej-II, Dahej-392 130, Taluka Vagra, District Bharuch (Gujarat) by M/s Greentec Chemicals Pvt Ltd - Reconsideration of Environmental Clearance

[IA/GJ/IND2/67796/2017, IA-J-11011/437/2017-IA-II(I)]

43.3.5.1 The project proponent and their consultant M/s Aqua-Air Environmental Engineers Pvt Ltd made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for setting up Pesticides, Pesticide Specific Intermediates @ 9100 MT/Month & By-Products @ 7555 MT/Month by M/s Greentec Chemicals Pvt Ltd located at Plot No. D-2/11/B/3/2, GIDC, Dahej-II, Taluka: Vagra, District Bharuch (Gujarat)

(ii) The project proposal was granted Standard TORs and the TOR has been issued by Ministry vide letter No.IA-J-11011/437/2017-IA-II(I); dated 09th Dec, 2017

(iii) All Products are listed at S.N. 5(b) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) The land area available for the project is 79,999 m² (Green Field Project).

(v) Industry will develop greenbelt in an area of 33% i.e., 25,600 (32%) m² out of 79,999 m² of area of the project.

(ii) The estimated project cost is Rs. 101 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.8.0 Crores and the Recurring cost (operation and maintenance) will be about Rs.80 Lakhs per annum.

(i) Total Employment will be 500 persons as direct & indirect for new project. Industry proposes to allocate Rs 2.5 Crores (approx.) in next 5 years @ 2.5% towards Corporate Social Responsibility.

(ii) There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km from the project site.

(iii) Ambient air quality monitoring was carried out at 8 locations during March, 2017 to May, 2017 and the baseline data indicates the ranges of concentrations as: PM10 (72.5-81.2 µg/m³), PM2.5 (40.65-45.99 µg/m³), SO₂ (11.97-17.29 µg/m³) and NO₂ (14.06-18.36 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.33 µg/m³, 0.98 µg/m³ and 0.05 µg/m³ with respect to PM10, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(iv) Total water requirement is 1750 m³/day of which fresh water requirement of 1100 m³/day and will be met from GIDC Water Supply.

(v) The wastewater generation for proposed project will be 792 KL/day. Wastewater will be segregated in 3 different streams i.e.

a. High COD/High TDS = 632 KL/Day (It will be treated in ETP followed by Solvent stripper + MEE + ATFD ultimately the MEE Condensate i.e. 550 KL/Day will be sent to ETP for further treatment followed by RO)

b. Low COD/Low TDS Stream = 120 KL/Day (It will be treated in ETP followed by RO, where already MEE Condensate i.e. 550 KL/Day is mixed with Low COD/Low TDS Stream i.e. 120 KL/Day so Total 670 KL/Day in RO for further treatment, from where RO Permeate i.e. 500 KL/Day will be reused/recycled for Cooling, Scrubbing & Process & RO Reject i.e. 170 KL/Day is sent to MEE-2 for further treatment and MEE Condensate i.e. 150 KL/Day will be recycled back for further reuse)

c. Domestic = 40 KL/Day (It will be treated in STP and treated water will be reused for land irrigation/gardening)

d. Ultimately this unit will be a Zero Liquid Discharge Unit.

(vi) Power requirement for proposed project will be 7500 KVA and will be met from DGVCL. 3 Nos. DG sets of 1500 KVA capacity shall be used as standby during power failure. Stack (height 30 m) will be provided as per CPCB norms to the proposed DG sets

(vii) Unit shall have 2 Nos. of 15 TPH Natural Gas/Coal fired boiler. 50% Natural Gas and 50% Coal will be used as fuel for Boilers. ESP with a stack of height of 30 m will be installed for controlling the Particulate emissions (within statutory limit of 150 mg/Nm³)

(viii) Details of Process emissions generation and its management.

Sr. No.	Stack Attached to	Stack Height	Air Pollution Control System	Prescribed Standards
1	Boiler (15 TPH each) – 2 Nos.	30 m	ESP	PM ≤ 150 mg/Nm ³ SO ₂ ≤ 100 ppm NO _x ≤ 50 ppm
2	DG Sets (1500 KVA) – 3 Nos.	30 m	--	PM ≤ 150 mg/Nm ³ SO ₂ ≤ 100 ppm NO _x ≤ 50 ppm
3	Specialty Chloro Phenol Reaction Vessel	15 m	Two Stage Alkali Scrubber	HCl ≤ 20 mg/Nm ³
4	Herbicide	15 m	Two Stage Water + Alkali Scrubber, HBr Scrubber	HCl ≤ 20 mg/Nm ³
				SO ₂ ≤ 40 mg/Nm ³
				HBr ≤ 5 mg/Nm ³
5	Fungicide	15 m	Two Stage Water + Alkali Scrubber	HCl ≤ 20 mg/Nm ³
				SO ₂ ≤ 40 mg/Nm ³
				CS ₂ ≤ 180 mg/Nm ³
6	Insecticide	15 m	Two Stage Water + Alkali Scrubber, HBr Scrubber	HCl ≤ 20 mg/Nm ³
				SO ₂ ≤ 40 mg/Nm ³
				HBr ≤ 5 mg/Nm ³
7	Amino Compound Reaction Vessel	15 m	Two Stage Alkali Scrubber	HCl ≤ 20 mg/Nm ³
8	Nitro Plant	15 m	Two Stage Water + Alkali Scrubber	HCl ≤ 20 mg/Nm ³
				SO ₂ ≤ 40 mg/Nm ³
9	Mancozeb / Maneb Plant	15 m	Two Stage Alkali Scrubber	H ₂ S ≤ 45 mg/Nm ³
				CS ₂ ≤ 180 mg/Nm ³
10	Propineb / Zineb Plant, Dithio Carbamate preparation	15 m	Two Stage Water + Alkali Scrubber	H ₂ S ≤ 45 mg/Nm ³
				CS ₂ ≤ 180 mg/Nm ³
				NH ₃ ≤ 175 mg/Nm ³
11	Spray Dryer for MancozebManeb Plant No. 1	31 m	Double Ventury scrubber	PM ≤ 150 mg/Nm ³
12	Spray Dryer for MancozebManeb Plant No. 2	31 m	Double Ventury scrubber	PM ≤ 150 mg/Nm ³
13	Spray Dryer for Propineb and Zineb Plant	31 m	Double Ventury scrubber	PM ≤ 150 mg/Nm ³

(ix) Details of Solid waste/ Hazardous waste generation and its management.

Sr. No.	Waste Details	Waste Category	Quantity MT/Month	Mode of Disposal
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1	ETP Sludge	35.3	300	Collection, Storage, Transportation and Disposal at Nearest TSDF
2	Process Waste Sludge (Iron Sludge and residual process salt)	29.1	550	Collection, Storage, Transportation and Disposal at Nearest TSDF or co-processing in Cement Industries
3	Used Oil	5.1	2,000 Lit./Month	Collection, Storage, Transportation and Selling to authorized recyclers
4	Discarded liners / Bags Carboy Drums	33.1	10	Collection, Storage, Transportation, Decontamination and Selling to authorized recyclers
5	Salt from MEE	37.3	1,000	Collection, Storage, Transportation and Disposal at Nearest TSDF
6	Distillation Residue	36.1	200	Collection, Storage, Transportation and Sent to Cement Industries for Co-processing OR incineration at Common Incineration Site
7	Spent Carbon	28.3	5	Collection, Storage, Transportation and Co-processing in Cement Industries or incineration at Common Incineration facility
8	Process Inorganic Salt	-	150	Collection, Storage, Transportation and Disposal at Nearest TSDF facility
9	Ammonium Sulphate Salt	C1	500	Collection in woven sag bags, Sell to licensed factory and after purification used
10	Formic Acid	-	100	Collection in HDPE tank and Sell to formulation industry
11	HBr Solution 20%	-	2000	Collection in HDPE tank and Sell to Dyes industry or In-House Bromine Recovery
12	Hydrochloric Acid (10 to 20%)	C2	400	Collection in HDPE tank and Sell to Dyes/Calcium Chloride industry
13	KCl Powder	-	200	Collection in woven sag bags and Sell to agro chemical industry
14	Manganese Carbonate (MnCO ₃)	-	400	Collection in woven sag bags, Sell to agro chemical industry which converts it to MnSO ₄ soln. and use
15	NH ₄ Cl Powder	-	250	Collection in HDPE tanks and Sell to Dyes industry or recycle in agro chemical industry
16	Potassium Bromide	-	215	Collection in HDPE tanks and Sell to Dyes industry or recycle in agro chemical industry
17	Potassium Fluoride Salt	-	500	Collection in HDPE tank, Evaporation to Powder and Sell to Dyes industry/recycle in agro chemical industry
18	Recovered Solvent	-	40	Storage in MS/SS tanks, Purification in plant and Residue send in drums to nearest TSDF for incineration
19	Sodium Bi Sulphite	-	400	Collection in HDPE tank, Evaporation

	Salt			to Powder and Sell to Dyes industry/recycle in agro chemical industry
20	Sodium Bromide 20 % Solution	-	150	Collection in HDPE tank, Evaporation to Powder and Sell to Dyes industry/recycle in agro chemical industry
21	Sodium Fluoride 20 % Solution	-	100	Collection in HDPE tank, Evaporation to Powder and Sell to Dyes industry/recycle in agro chemical industry
22	Sodium Sulphite Powder	-	500	Collection in woven sag bags and Sell to Dyes/textile/washing powder industry
23	Sodium Sulphate (Na ₂ SO ₄)	-	1200	Collection in woven sag bags and Sell to Dyes/textile/washing powder industry
24	Spent Sulphuric Acid	C2	100	Collection in HDPE tanks, Neutralized in factory and Send to nearest TSDF for land filling or Sell to converting Sulphate salt industry
25	Formaldehyde 10 to 15 % solution	-	100	After Formaldehyde Recovery and reused, rest of aqueous ML will be treated in ETP
26	Sodium Chloride Salt	-	400	Collection, Storage, Transportation and Disposal at Nearest TSDF
27	Fly Ash	-	180	Collection, Storage, Transportation and Sell to Brick Manufacturers

(x) Public Hearing is exempted for this project as this project is located in Notified Industrial Estate of Dahej GIDC (Covered under PCPIR Region)

(xi) No litigation is pending against the proposal

(xii) Following are the list of existing and proposed products:

Group-I: Insecticides					
Sr. No	Name	Capacity (MT/Month)	CAS number	LD50 (mg/kg)	Reference of LD50 (mg/kg)
1	Propargite	50	2312-35-8	2000	MSDS HPM Ch&Fert
2	Permethrin		52645-53-1	998 [Oral TDLO Man 2270 mg/kg]	MSDS-LG Life Science Ltd. [Cyman Chemical\
3	Alphamethrin		67375-30-8	100	MSDS BIO Plagen
4	Cyfluthrin & Beta Isomers		68359-37-5	1271	PMEP Cornell University
5	Diethyl Phenyl Acetamide		2431-96-1	1175	MSDS Sciences lab
6	Fipronil		120068-	> 2000	MSDS Bayer

			37-3		
7	Transfluthrin		118712-89-3	> 5000	MSDS Shogun
8	Zeta Cypermethrin		52315-97-08	4123	PMEP Cornell University
9	Spirodiclofen		148477-71-8	> 2730	MSDS OSHAha
10	Acetamiprid		160430-64-8	417	MSDS Kcoi
11	Chlorantraniliprole		500008-45-7	> 5000	MSDS Molbase.Com
12	Pyriproxypene		95737-68-1	2000	MSDS Cyman Chemicals
13	Imidacloprid		138261-41-3	425-475	MSDS Flea science
14	Thiomethoxam		15719-23-4	> 5000	MSDS HMP
15	Deltamethrin		52918-63-5	> 2000	MSDS-Merck
16	Acephate	900	30560-19-1	1127	MSDS UPL
17	Chloropyrifos		2921-88-2	182	MSDS OSHA HCS
18	Profenofos		41198-08-7	358	MSDS HMP
	TOTAL (Group I)	950			

Group-II: Fungicides					
Sr. No.	Name	Capacity (MT/Month)	CAS number	LD50 (mg/kg)	Reference of LD50
19	Azoxystrobin	50	131860-33-8	1714	MSDS Syngenta
20	Kresoxim methyl		143390-89-0	> 5000	MSDS MOLBAR
21	Cymoxanil		57966-95-7	>2250	MSDS Syngenta
22	Picoxystrobin		117428-22-5	> 2200	MSDS Syngenta
23	Triclopyricarb		902760-40-1	2140	MSDS HPM ch&Fert
24	Fluoxastrobin		361377-29-9	> 5000	MSDS FMC
25	Flufenoxystrobin		918162-02-4	>2000	MSDS
26	Pyraclostrobin		175013-18-0	5000	MSDS Chemical book
27	Trifluoxystrobin		141517-21-7	> 5000	MSDS Santa cruz
28	Fenoxanil		115852-48-7	> 2000	MSDS Sigma
29	Thiafluzamide	20	130000-40-7	> 6500	MSDS www.sitem.herts
30	Boscalid		188425-85-6	5000	MSDS Chemical book
31	Cyazofamid		120116-88-3	> 5000	MSDS FMC
32	Diafenthiuron		80060-09-9	2068	MSDS Bharat rasayan
33	Dodine		2439-10-3	> 1500	MSDS Chemical book
34	Propineb	400	12071-83-9	8500	MSDS Chemical book
35	Tricyclazole	200	41814-78-2	4200	MSDS-Molebase
36	Mancozeb	4000	8018-01-7	> 5000	MSDS UPL
37	Maneb	200	12427-38-2	7500	MSDS UPL

38	Zineb	200	12122-67-7	5000	MSDS Chemical book
39	Imazalil	50	3554-44-0	227	MSDS Santa Kruz BT
40	Bromuconazole		116255-48-2	365-1151	MSDS Chemicalbook.com
41	Azaconazole		60207-31-0	2730	MSDS
42	Difenoconazole		119446-68-3	1453	MSDS Sparchem
43	Epoxiconazole		133855-98-8	>2000	MSDS BASF
44	Hexaconazole		79983-71-4	> 2000	MSDS-Sparchem
45	Tebuconazole		107534-96-3	1700	MSDS Bharat Rasayan
46	Fenbuconazole		114369-43-6	>2000	MSDS Coako chemical
47	Ipconazole		125225-28-7	2730	MSDS OSHA
48	Metconazole		125116-23-6	>2000	MSDS BASF
49	Tetraconazole		112281-77-3	1248	MSDS Molbase .com
50	Cyproconazole		94361-06-5	1020	MSDS Zhelang.Rayon
51	Prothioconazole		178928-70-6	2000	MSDS wwFao.org
52	Fluquinconazole		136426-54-5	2730	MSDS OSHA Hcs
53	Myclobutanil		88671-89-0	1600	MSDS-Cyman Chemical
54	Propiconazole		60207-90-1	1517	PMEP Coronell University
55	Triadimenol		55219-65-3	2330	MSDS-ZHEJIANG RAYFULL CHEMICALS CO.,LTD
56	Triadimefon	43121-43-3	1000	MSDS-ZHEJIANG RAYFULL CHEMICALS CO.,LTD	
57	Triticonazole	131983-72-7	> 1782	MSDS-Cyman Chemical	
58	Quinoxyfen	20	124495-18-7	> 5000	Wikipedia
59	Chlorothalonil		1897-45-6	>5000	MSDS Arysta life science
60	Fluazinam		79622-59-6	4500	EPA pesticide fact sheet
61	Famoxadone		131807-57-3	5800	MSDS OSHA .Hcs
62	Metalaxyl		57837-19-1	669	MSDS-TenglongAgrochem
63	Benalaxyl		71626-11-4	4200	MSDS-Molebase
	TOTAL (Group II)	5140			

Group-III: Herbicides					
Sr. No	Name	Capacity (MT/Month)	CAS number	LD50 (mg/kg)	Reference of LD50
64	Pendimethalin	350	40487-42-1	1050	MSDS-Molebase
65	2,4-Di Chloro phenoxy Acetic Acid		94-75-7	375 -680 (oral) 2000 (dermal)	MSDS Cyman Chemical merk I
66	Glyphosate Tech and its Intermediates Volume		1071-83-6	5600	MSDS Zheijang.Rayfull
67	Aciflurofen	50	50594-66-6	1370	PMEP Cornell University
68	Bispyribac		125401-75-4	2635	MSDS Sighma-Aldrich
69	Carfentrazone		128621-72-7	> 4000	MSDS-FMC
70	Clethodim		99129-21-2	1630	MSDS-TenglongAgrochem
71	Clodinafop-propargyl		105512-06-9	> 2000	MSDS HPM ch&ferti
72	Fenoxaprop-p-ethyl		66441-23-4	1000	MSDS FMC
73	Fluazifop-p-butyl		79241-46-6	2712	MSDS CHEMSRC
74	Dicamba		1918-00-9	1039	MSDS Molbase
75	Cloquintocet-mexyl		99607-70-2	>2000	MSDS EPA
76	Fomesafen		72178-02-0	1250-2000	MSDS SIGMA-ALDRICH
77	Chlomethoxyfen		32861-85-1	18000	MSDS CHEMSRC
78	Oxyfluorfen		42874-03-3	>5000	MSDS Sighma-Aldrich
79	Cyhalofop Butyl		122008-85-9	>5000	MSDS US-=EPA
80	Fluroxypyr-meptyl		81406-37-3	>5000	MSDS Sighma-Aldrich
81	Picloram		1918-02-1	4200	MSDS MOLBASE
82	Pretilachlor		81690-06-4	2200	MSDS Sighma-Aldrich
83	Metamitron	21087-64-9	1200	MSDS SPARCHEM	
84	Metribuzin	21087-64-9	1100	MSDS Bharat Rasayan	
85	Metamifop	256412-89-2	>2000	MSDS SIGMA-ALDRICH	
86	Quizalofop Ethyl	76578-14-8	1210--1670	MSDS Tiatn Ag Crop protection	

87	Sulfentrazone		122836-35-5	2689	MSDS FMC
88	Triclopyrbutotly		64700-56-7	803-1400	MSDS Sigma_Aldrich
	TOTAL(Group -III)	400			

Group-IV: List of the Intermediates:					
Sr. No.	Name	Capacity (MT/Month)	CAS number	LD50 (mg/kg)	Reference of LD50
89	1,2,4-Triazole	50	288-88-0	1350	MSDS www.sciencelab.com
90	3-Methyl-1,2,4-triazole		7170-01-6	300	MSDS-Matrix scientific
91	Diphenyl Ether		101-84-8	3370	MSDS-Sigma-Aldrich
92	4-Phenoxy Phenol		831-82-3	Acute oral toxicity Category -III (> 500 to < 5000)	www.chemicalbook.com
93	3,4' Dimethyl Diphenyl Ether		51801-69-5	2450	MSDS-Alfa Aesar
94	3-Phenoxy Toluene		3586-14-9	2509	MSDS-Molebase
95	2,3-Dichloro phenol		576-24-9	2376	MSDS-cdfinachemical
96	2,5-Dichloro Phenol		583-78-8	946	MSDS-Fisher Scientific
97	3,4- Dichloro Phenol		95-77-2	1685	MSDS-AcrosOrhanic
98	3,5-Dichloro Phenol		591-35-5	2389	MSDS-Mole base
99	4-Bromo-2-Chloro Phenol		3964-56-5	358-1178	MSDS-Fisherscientific
100	4-Bromo-2,5 Dichloro Phenol		1940-42-7	1350	MSDS www.chemsrc.com
101	4-Fluoro Phenol		371-41-5	312	MSDS cdhfinachemical.com
102	2-Fluoro Phenol		367-12-4	537	MSDS www.chemsrc.com
103	o-Cyano Phenol		611-20-1	Acute oral toxicity Category -IV (> 5000)	www.chemicalbook.com
104	2-Methyl Phenol		95-48-7	121-1350	MSDS-wikipedia
105	3-Chloro Phenol	108-43-0	570	MSDS- www.sciencelab.com	
106	p-Chloro-m-Cresol	59-50-7	1830	MSDS-Thermofisher	
107	p-Chloro-m-Xylenol	88-04-0	3830	MSDS-cdfinechemical	
108	4,6-Dichloro-2-Amino Phenol	527-62-8	1658	MSDS-Bioscience	

109	2-Cyano-3,4,5,6-Tetrachloro Benzoic Acid Methyl Ester mix product		106276-80-6	2000-5000	MSDS-BASF
110	3-Amino-4-Methyl Benzoic Acid		2458-12-0	Acute oral toxicity Category -IV (> 5000)	www.chemicalbook.com
111	3-Amino-4-Chloro Benzotrifluoride		121-50-6	Acute oral toxicity Category -IV (> 5000)	www.chemicalbook.com

112	3-Amino Benzotrifluoride		98-16-8	480 / 1330	MSDS-Fisher-scientific
113	3,4-Diamino Toluene		496-72-0	Acute oral toxicity Category-IV (> 5000)	www.chemicalbook.com
114	2,3-Dichloro Aniline		608-27-5	LC50 > 8,047 mg/m3	MSDS-AplhaChemika
115	2,5-Dichloro Aniline		95-82-9	1600	MSDS cdfinechemical
116	3,4-Dichloro Aniline		95-76-1	545	MSDS cdfinechemical
117	3,5-Dichloro Aniline		626-43-7	Acute oral toxicity Category-III (> 500 to < 5000)	www.chemicalbook.com
118	3-IsoPropoxy aniline		41406-00-2	Acute oral toxicity Category-III (> 500 to < 5000)	www.chemicalbook.com
119	2-Chloro-1,4-Phenylene Diamine		615-66-7	1260-1600	MSDS-www.scbt.com
120	2,5-Dichloro-1,4-Phenylene Diamine		20103-09-7	1730-3078	MSDS-Molebase
121	2-Chloro-5-Methyl-1,4-Phenylene Diamine		5307-03-9	Acute oral toxicity Category-IV (> 5000)	www.chemicalbook.com
122	2,5-Dimethyl-1,4-Phenylene Diamine		6393-01-7	Acute oral toxicity Category-IV (> 5000)	www.chemicalbook.com
123	2,4-Dichlorobuterophenone		66353-47-7	Acute oral toxicity	www.chemicalbook.com

				Category-III (> 500 to < 5000)	
124	6-Methyl-5-Amino Benzimidazolone		67014-36-2	3600	MSDS- www.chemsrc.com
125	2,4'-Dichloro Acetophenone		937-20-2	Acute oral toxicity Category-III (> 500 to < 5000)	www.chemicalbook.com

126	2',5'-Dichloro Acetophenone		2476-37-1	Not a hazardous substance or mixture	According to 2/2008 Regulation (EC) No. 127
127	4-Fluoro Acetophenone		403-42-9	Not a hazardous substance or mixture	According to 2/2008 Regulation (EC) No. 127
128	2,4-Dichloro-5-Fluoro Acetophenone		704-10-9	> 2000	MSDS-Thermo Fisher
129	2,4-DichloroPhenacyl Chloride		4252-78-2	Acute oral toxicity Category-II (> 50 to < 500)	www.chemicalbook.com
130	5-Amino Benzimidazol-2-One		934-22-5	Acute oral toxicity Category-II (> 50 to < 500)	www.chemicalbook.com
131	4-Nitro-2,5-Dichloro Aniline		6627-34-5	2820	MSDS-Mole base
132	2-Nitro-4-Methyl Aniline		89-62-3	> 1250	MSDS-ChemSrc
133	4-Nitro-2,5-Dimethyl Aniline		3460-29-5	180	MSDS www.chemsrc.com
134	4-Nitro-5-Chloro-2-Methyl Aniline		13852-51-2	Acute oral toxicity Category-II (> 50 to < 500)	www.chemicalbook.com
135	6-Nitro-3,4-Dichloro Aniline		2843-83-4	Acute oral toxicity Category-III (> 500 to < 5000)	www.chemicalbook.com
136	3-Nitro-4-Chloro-Benzotrifluoride		121-17-5	1075	MSDS-Appolo Scientific
137	2-Nitro-5-chloro phenol		611-07-4	Acute oral toxicity	www.chemicalbook.com

				Category-IV (> 5000)	
138	DMPAT	500	17321-47-0	980 / 3200	MSDS-Chemblink
139	2-Amino Diphenyl Ether	20	2688-84-8	Acute oral toxicity Category-IV (> 5000)	www.chemicalbook.com

140	Resorcinol Di (Beta-Hydroxy Ethyl) Ether		102-40-9	Not a hazardous substance or mixture	According to 2/2008 Regulation (EC) No. 127
141	Meta-phenoxybenzylalcohol	200	13826-35-2	1496	MSDS-Thermo Fisher
142	Meta-phenoxy benzaldehyde		39515-51-0	1222	MSDS-Fisher Scientific
143	1R Hightrans CMA		52314-67-7	Acute oral toxicity Category-III (> 500 to < 5000)	www.chemical.book
144	Hydroxy Benzo Furan		4790-80-1	Acute oral toxicity Category-III (> 500 to < 5000)	www.chemical.book
145	m-Bromo Anisole		2398-37-0	2200	MSDS-Cdfine chemical
146	m-Bromo Nitrobenzene		585-79-5	Acute oral toxicity Category-IV (> 5000)	www.chemical.book
147	Meta-phenoxy benzaldehyde		39515-51-0	Acute oral toxicity Category-IV (> 5000 mg/kg)	MSDS-Fisher Scientific
148	DV Acid Chloride		52314-67-7	Acute oral toxicity Category-IV (> 5000)	www.chemical.book
149	High Trans CMA and CMAC		52314-67-7	Acute oral toxicity Category-III (> 500 to < 5000)	MSDS-AK Scientific
150	High Cis CMA and CMAC		52314-67-7	Acute oral toxicity Category-III (> 500 to <	MSDS-AK Scientific

				5000)	
	TOTAL (Group-IV)	770			

Group I (Insecticides)	950 MT/Month
Group II (Fungicides)	5140 MT/Month
Group III (Herbicides)	400 MT/Month
Group IV (Intermediates)	770 MT/Month
Group V (Bio Pesticides)	1820 MT/Month
GRAND TOTAL (Group I to IV)	9080 MT/Month

LIST OF BY-PRODUCTS

Sr. No	By- Product Name	MT/Month	CAS No.
1	Ammonium Sulphate Salt	500	10043-01-3
2	Formic Acid	100	64-18-6
3	HBr Solution 20%	2,000	10035-10-6
4	Hydrochloric Acid 10 to 20%	400	7647-01-0
5	KCl Powder	200	7447-40-7
6	Manganese Carbonate	400	598-62-9
7	NH ₄ Cl Powder	250	12125-02-9
8	Potassium Bromide	215	7758-02-3
9	Potassium Fluoride Salt	500	7789-23-3
10	Recovered Solvent	40	8030-30-6
11	Sodium Bi Sulphite Salt	400	7631-90-5
12	Sodium Bromide 20 % Solution	150	7647-15-6
13	Sodium Fluoride 20 % Solution	100	7681-49-4
14	Sodium Sulphite Powder	500	7757-83-7
15	Sodium Sulphate	1200	7757-82-6
16	Spent Sulphuric Acid	100	7664-93-9
17	Formaldehyde 10 to 15 % solution	100	50—00-0
18	Sodium Chloride Salt	400	7647-14-5

43.3.5.2 The proposal was earlier considered by the EAC (Industry-2) in its meeting held on 24-26 April, 2018 and 25-27 July, 2018. The Committee in its last meeting, after deliberations, insisted for inputs, clarifications and necessary actions in respect of the following:-

- The product list contains Pesticides and Intermediates having LD₅₀ less than 1000 mg/kg, which are reported to be highly toxic and need to be deleted. In case of remaining products where the LD50 are reportedly not available, efforts to be made to find out the same. As such, all the products need to be reviewed for the toxicity involved and biodegradability, to revise the list accordingly.
- Considering the safety precautions, risk assessment study should be carried out using 3-D modelling.
- Allegations made by M/s Anupam Rasayan India Ltd regarding some of the products proposed to be manufactured by the project proponent using their product names,

manufacturing process, product chemistry and/or the patented products of their customers, etc, and thus in contravention with the rules and regulations in this regard.

In response, the project proponent has submitted the following:

- (a) The product list has been reviewed for the toxicity involved and now proposed to include only products which have LD₅₀ more than 100 mg/kg, which is in line with Committee's recent recommendations.
- (b) Risk assessment study has been carried out using 3D modelling, which showed that the impact due to leakage of gases can be minimised by adopting the safety measures came out of the study.
- (c) Regarding allegations made by M/s Anupam Rasayan India Ltd, it was informed that the products in question have been dropped.

43.3.5.3 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for manufacturing Pesticides of capacity 6490 TPM, including Insecticides 950 TPM (18 nos of products), Fungicides 5140 TPM (45 products), Herbicides 400 TPM (25 products), and Pesticide Specific Intermediates of 770 TPM (62 nos of products) by M/s Greentec Chemicals Pvt Ltd in a total area of 79999 sqm at Plot No.D-2/11/B/3/2, GIDC, Dahej-II, Taluka Vagra, District Bharuch (Gujarat). The project also envisages manufacturing bio-pesticides of capacity 1820 TPM.

The project/activity is covered under category A of item 5(b) 'Pesticide industry and pesticide specific intermediates' of Schedule of Environmental Impact Assessment (EIA) Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 9th December, 2017. Public hearing is exempted as the project is located in the Industrial area as provided under the Ministry's OM dated 27th April, 2018.

Total water requirement is estimated to be 1750 cum/day of which fresh water demand of 1100 cum/day is to be met from GIDC water supply.

Total effluent generated from different industrial operations is estimated to be 792 KLD, which will be taken to the effluent treatment plant (ETP) followed by MEE & RO for treatment. The treated water of 650 KLD shall be reused/recycled for cooling, scrubbing and process. Domestic waste water of 40 KLD shall be treated in STP and treated water will be reused for land irrigation/gardening. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

The expenditure towards CER for the project would be 4% of the project cost as committed by the project proponent.

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 additional information submitted by the project proponent found to be satisfactory, adequately addressing concerns raised by the Committee.

43.3.5.4 The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -

- Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.
- To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- Solvent management shall be carried out as follows:
 - (a) Reactor shall be connected to chilled brine condenser system.
 - (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - (c) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
 - (d) Solvents shall be stored in a separate space specified with all safety measures.
 - (e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - (f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - (g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- Total fresh water requirement shall not exceed 1100 cum/day is to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.
- Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system
- Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- 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 Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.
- Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- 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.
- 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, 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.
 - As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 4% of the total project cost. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
 - Safety and visual reality training shall be provided to employees.
 - For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
 - The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
 - Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
 - 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.

Agenda No.43.3.6

Agrochemicals manufacturing unit by M/s Crystal Crop Protection Pvt Ltd at plot No.D2/CH/14, GIDC industrial estate, Dahej-2, Taluka Vagra, District Bharuch (Gujarat) - Reconsideration of Environmental Clearance

[IA/GJ/IND2/34766/2015, J-11011/07/2016-IA II (I)]

43.3.6.1 The project proponent and their consultant M/s Aqua-Air Environmental Engineers Pvt Ltd made a detailed presentation on the salient features of the project & informed that:

- (i) The proposal is for environmental clearance to the project for Pesticide Technical (3175 MTPA) manufacturing unit at Plot No. D2/CH/14, GIDC Industrial Estate, Dahej-2, District Bharuch (Gujarat) by M/s Crystal Crop Protection Pvt Ltd
- (ii) The ToR has been issued by Ministry vide letter No. J-11011/07/2016-IA II (I) dated 21/06/2016.
- (iii) All Products are listed at S.N. 5(b) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).
- (iv) The land area available for the project is 30000 m². Industry will develop Greenbelt in an area of 30 % i.e. 10000 m² out of total area of the project.

(v) The estimated project cost is Rs 12 Crores. Total Capital cost earmarked towards environmental pollution control measures is Rs. 2.0 Crore and recurring cost (Operation and Maintenance) will be around Rs. 1.5 Crore per annum.

(vi) Total employment will be 45 people as direct and 50 person indirect after expansion. Industry purposes to allocate Rs. 0.24 Cr of 2% towards Corporate Social Responsibility.

(vii) There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Narmada River is flowing at a distance of 5.3 Km in South Direction.

(viii) Ambient air quality monitoring is carried out at 8 locations during March 1, 2017 to May 31, 2017. The dispersion of pollutants in the atmosphere is a function of several meteorological parameters viz. temperature, wind speed and direction, mixing depths, inversion level, etc. The ambient air samples were collected and analyzed for Particulate Matter (PM10), Particulate Matter (PM2.5), Sulphur Dioxide (SO₂), Oxides of Nitrogen (NO_x), Ozone (O₃), Lead (Pb), Carbon Monoxide (CO), Ammonia (NH₃), Benzene (C₆H₆), Benzo (a) Pyrene (BaP), Arsenic (AS), Nickel (Ni), HC, & VOCs were monitored at site and nearby villages for identification, prediction, evaluation and assessment of potential impact on ambient air environment. The PM10 values at all the locations in residential/rural areas ranged between 72.5 – 80.50 µg/m³ respectively in pre-monsoon season. Similarly, the values of PM2.5 varied in the range of 40.08 – 45.99 µg/m³. The PM10 and PM2.5 concentrations at all the AAQM locations were primarily caused by local phenomena including vehicular activities and natural dust getting air borne due to manmade activities and blowing wind. The values of NO_x at all the locations in residential/rural areas were observed to be in the range of 14.06 – 18.36 µg/m³. The values of SO₂ at all the locations in residential/rural areas ranged between 11.97 – 17.29 µg/m³. The values of O₃ at all the locations in residential/rural areas ranged between 10.02 – 10.75 µg/m³. At all the air quality monitoring locations in residential/rural areas, the values of NO_x, SO₂ & O₃ were observed to be within limits. The values of CO at all the locations in residential/rural areas ranged between 1.12-1.20 mg/m³. The values of NH₃ at all the locations in residential/rural areas ranged between BDL to 1.75 µg/m³. The values of Ni at all the locations in residential/rural areas ranged between 10.05-10.15 ng/m³. The values of VOCs at all the locations in residential/rural areas ranged between 0.2 – 0.8 ppm. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(ix) Total water requirement will be 162 m³/day of which fresh water requirement of 162 m³/day and will be met from GIDC Water Supply.

(x) Low COD & Low TDS Treated Effluent (60 KL/Day) will be treated in ETP then it will discharge into deep sea through GIDC pipeline.

a. High COD Stream (20 KL/Day) from process will be neutralized in ETP and then evaporated in MEE. MEE Condensate will be treated in ETP and then Treated effluent will be discharged into deep sea through GIDC Pipeline.

b. Total water requirement will be 162 m³/day which will meet through GIDC water supply. Total wastewater generation will be 80 m³/day. Low COD and low TDS effluent (60 m³/day) will be sent to the ETP consisting of primary & secondary treatment facility for treatment. High COD and high TDS stream (20 m³/day) shall go to MEE for treatment and MEE condensate will be sent back to Aeration tank of ETP. The final treated water from ETP will be sent to GIDC drain for final disposal. High COD/TDS stream (20 m³/day) shall be evaporated in MEE and MEE condensate will be sent to ETP for further treatment and finally it will be sent to GIDC drain for final disposal.

(xi) Total Power Requirement is 1000 KVA from DGVCL from Dakshin Gujarat Vij Company Limited (DGVCL). Stack (Height – 11 m) will be provided as per CPCB norms to the proposed DG Set.

(xii) Unit will have 5 TPH Agro waste/FO/LDO base 1 No. steam boiler and a 1000 KVA DGSet. Multi Cyclone Separator with Bag Filter, scrubber with a stack of height of 30m, 11 m will be installed for controlling the Particulates Matter (PM) within statutory limit of 115 mg/Nm³ for the proposed boiler.

(xiii) Details of Process emissions generation and its management: Unit will have 3 No of process gas emission. Two Stage scrubber with a stack of height of 11 m will be installed for controlling the process gas emission.

(xiv) Details of Solid waste / Hazardous waste generation and its management

S. No.	WASTE DETAILS	WASTE CATEGORY	QUANTITY (MT/Year)	MODE OF DISPOSAL
1.	ETP Sludge	Sch-I/ 35.3	300	Collection, Storage, Transportation and Disposal at Nearest TSDF for Secured Landfill
2.	Process Sludge	Sch-I/ 29.1	250	Collection, Storage, Transportation and Disposal at Nearest TSDF or sell to Cement Industry
3.	Distillation Residue	Sch-I/ 20.3	180	Collection, Storage, Transportation and Co-processing in Cement Industries or incineration at Common Incineration facility
4.	MEE Salt	Sch-I/ 35.3	350	Collection, Storage, Transportation and Disposal at Nearest TSDF
5.	Used Oil	Sch-I/ 5.1	0.5	Collection, Storage, Transportation & recycle to GPCB authorized recycler
6.	Discarded Drums/Bags/Containers	Sch-I/ 33.1	10	Decontamination, Storage & sent to actual recycler
7.	35% HCl	Sch-I/ 29.6	45	Collection, Storage, Transportation & Sell to end user
8.	Inorganic Salt	Sch-I/ 29.1	1050	Collection, Storage, Transportation and Disposal at Nearest TSDF
9.	Spent Sulphuric Acid	Sch-I/ 29.6	350	Collection, Storage, Transportation & Sell to end user

(xv) No litigation is pending against the proposal.

(xvi) Public hearing for the proposed project is exempted as the plant is located in notified Industrial Estate (Dahej).

(xvii) Following are the list of proposed products:

S. No.	Products	Class	Quantity (MT/Year)	CAS No.	LD50
1	Boscalid	Fungicide	30	188425-85-6	2000 mg/kg
2	Cyproconazole	Fungicide	20	94361-06-5	1010 mg/kg
3	Difenaconazole	Fungicide	20	119446-68-3	2010 mg/kg
4	Flutriafol	Fungicide	30	76674-21-0	1140 mg/kg

5	Epoxiconazole	Fungicide	40	133855-98-8	3160 mg/kg
6	Hexaconazole	Fungicide	200	79983-71-4	2189 mg/kg
7	Kresoxim methyl	Fungicide	30	143390-89-0	2150 mg/kg
8	Mancozeb	Fungicide	400	8018-01-7	4500 mg/kg
9	Metalaxyl	Fungicide	100	57837-19-1	3100 mg/Kg
10	Pencycuron	Fungicide	30	66063-05-6	2000 mg/kg
11	Propiconazole	Fungicide	100	60207-90-1	1211 mg/kg
12	Propineb	Fungicide	30	12071-83-9	3708 mg/kg
13	Prothioconazole	Fungicide	25	178928-70-6	2500 mg/kg
14	Thiophnate methyl	Fungicide	100	23564-05-8	5000 mg/kg
15	Tricyclazole	Fungicide	100	41814-78-2	2000 mg/kg
16	Bispyribac Sodium	Herbicide	100	125401-75-4,	2250 mg/kg
17	Clodinoxip-propargyl	Herbicide	100	105512-06-9	2271 mg/kg
18	Dicamba	Herbicide	20	1918-00-9	1190 mg/kg
19	Diuron	Herbicide	20	330-54-1	3400 mg/kg
20	Imazethapyr	Herbicide	100	81335-77-5	2150 mg/kg
21	Metribuzine	Herbicide	100	21087-64-9	1090 mg/kg
22	Oxyfluorfen	Herbicide	100	42874-03-3	5000 mg/kg
23	Pendimethalin	Herbicide	400	40487-42-1	1421 mg/kg
24	Penoxsulam	Herbicide	40	219714-96-2	5000 mg/kg
25	Propanil	Herbicide	40	709-98-8	2500 mg/kg
26	Propaquizafop	Herbicide	100	111479-05-1	2000 mg/kg
27	Quizalofop ethyl	Herbicide	100	76578-14-8	1210 mg/kg
28	Terbutylazine	Herbicide	50	5915-41-3	1000 mg/kg
29	Diafenthiuron technical	Insecticide	100	80060-09-9	2068 mg/kg
30	Fenpyroximate	Insecticide	100	134098-61-6	2000 mg/kg
31	Flubendiamide	Insecticide	250	272451-65-7	5000 mg/kg
32	Thiamethoxam	Insecticide	200	153719-23-4	1563 mg/kg
Total			3175		

43.3.6.2 The proposal was earlier considered by the EAC (Industry-2) in its meeting held on 25-27 June, 2018. The Committee, after deliberations, insisted for inputs, clarifications and necessary actions in respect of the following:-

- The product list contains four pesticides namely, Boscalid, Alphanethrin, Triazophos & Profenofos having LD₅₀ less than 1000 mg/kg, which are reported to be highly toxic and thus need to be deleted. The remaining products need to be reviewed for the toxicity involved and biodegradability, to revise the product list accordingly.
- Considering the safety precautions, risk assessment study should be carried out using 3-D modelling.

In response, the project proponent has submitted following information:

(a) The product list has been reviewed for the toxicity involved and now proposed to include only products which have LD₅₀ more than 1000 mg/kg, as suggested by the Committee.

(b) Risk assessment study has been carried out using 3D modelling, which showed that the impact due to leakage of gases can be minimised by adopting the safety measures came out of the study.

43.3.6.3 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up Pesticide Technical (Fungicide/Herbicide/Insecticide) manufacturing unit of capacity 3175 TPA (32 nos of products) by M/s Crystal Crop Protection Pvt Ltd in a total area of 30000 sqm at Plot No. D2/CH/14, GIDC Industrial Estate, Dahej-2, District Bharuch (Gujarat).

The project/activities are covered under category A of item 5(b) 'Pesticides industry and pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 21st June, 2016 with exemption from public hearing under the provisions as per Para 7 Stage III. (3) (i) (b) of the EIA Notification, 2006, as plant is located in notified Industrial Estate.

Total fresh water requirement is estimated to be 162 cum/day to be met from GIDC water supply.

Total effluent generated from different industrial operations is estimated to be 80 cum/day. Low COD/TDS effluent of 60 cum/day shall be sent to ETP for primary and secondary treatment. High COD/TDS stream of 20 cum/day shall be sent to MEE for treatment and MEE condensate shall be directed to aeration tank of ETP. The final treated water from ETP shall be sent to GIDC drain for final disposal.

The expenditure towards CER for the project would be 3% of the project cost as committed by the project proponent.

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 additional details submitted by the project proponent found to be satisfactory, suitably addressing the concerns raised by the Committee.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *Adequate vapour containment safety measures shall be incorporated for controlling Thionyl Chloride emission.*
- *Total effluent not exceeding 80 cum/day shall be sent to GIDC drain for final disposal, only after its treatment to the extent meeting the standards prescribed under the Environment (Protection) Rules, 1986.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*

- Solvent management shall be carried out as follows:
 - (a) Reactor shall be connected to chilled brine condenser system.
 - (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - (c) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
 - (d) Solvents shall be stored in a separate space specified with all safety measures.
 - (e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - (f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - (g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- Total fresh water requirement shall not exceed 162 cum/day to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.
- Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system
- Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- 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 Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.
- Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- 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.
- 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, 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.
- As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 3% of the total project cost. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.

- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- 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.

43.4 Any Other

Agenda No.43.4.1

Exploration, Development and Production for Oil & Gas in 21 onshore PML blocks in Upper Assam North, A & AA Basin, Sivasagar district, Assam by M/s Oil and Natural Gas Corporation Ltd - Amendment in ToR

[IA/AS/IND2/75479/2018, IA-J-11011/206/2018-IA-II(I)]

43.4.1.1 The proposal is for amendment in the Standard Terms of Reference granted by the Ministry vide letter dated 27th July, 2018 in favour of M/s Oil and Natural Gas Corporation Ltd to the project for Exploration, Development and Production of Oil & Gas in 21 onshore PML blocks in Upper Assam North, A&AA Basin, District Sivasagar (Assam).

43.4.1.2 The project proponent has requested for exemption of public hearing with the details are as under:

S. No	Para of ToR issued by MoEF&CC	Details as per the ToR	To be revised/ read as	Justification/ reasons
1.	Exploration, Development and Production for Oil & Gas in 21 onshore PML blocks in Upper Assam North, A&AA Basin, Sivasagar district, Assam by M/s Oil and Natural Gas Corporation Ltd – for Amendment in ToR	Exploration, Development and Production for Oil & Gas in 21 onshore PML blocks in Upper Assam North, A&AA Basin, Sivasagar district, Assam by M/s Oil and Natural Gas Corporation Ltd – for Amendment in ToR	Exemption of Public Hearing in District Sivasagar, Assam.	Recently ONGC have conducted Public Hearing in district Sivasagar for project “Development Drilling of 200 wells in Sivasagar District, Assam”. ToR no: J-11011/369/2018, dt. 29.04.2017. Its Public Hearing conducted on 15.06.2018 covering entire area of District Sivasagar, Assam.

43.4.1.3 The EAC noted that public hearing for another project of M/s ONGC Ltd for Development Drilling of 200 wells in Sivasagar District (Assam) was conducted on 15th June, 2018, and the activities proposed now are in the same district.

The Committee, in the first instance, recommended for exemption from requirement of conducting fresh public hearing, subject to a clarification from the State Pollution Control Board regarding earlier public hearing already covers the study area for the instant project. The Committee further desired that the Ministry may also take a view in this regard vis-à-vis the extant norms/regulations.

Agenda No.43.4.2

Exploratory drilling of three wells in Badarpur ML and Cachar District ML (Assam) by M/s Oil and natural Gas Corporation Ltd - Amendment in ToR

[IA/AS/IND2/56473/2016, J-11011/172/2016- IA II(I)]

43.4.2.1 The proposal is for amendment in the Terms of Reference granted by the Ministry vide letter dated 25th November, 2016 to the project for Exploratory drilling of three Wells in Badarpur ML and Cachar ML (Assam) in favour of M/s Oil and Natural Gas Corporation Ltd.

43.4.2.2 The project proponent has requested for exemption from public hearing with the details are as under:

S. No	Para of ToR issued by MoEF&CC	Details as per the ToR	To be revised/ read as	Justification/reasons
1.	Exploratory drilling of three Wells in Districts Badarpur and Cachar in Assam by M/s Oil and Natural Gas Corporation Ltd.	Exploratory drilling of three Wells in Districts Badarpur and Cachar in Assam by M/s Oil and Natural Gas Corporation Ltd.	“Onshore Exploration and Development in 2 PML Blocks in Districts Cachar and Hailakandi, Assam”	The proposed project falls in 2 districts i.e. Cachar and Hailakandi. Badarpur is a town in District Hailakandi (Assam).
2.	Para 5: A detailed draft EIA/EMP report shall be prepared in terms of the additional ToRs and shall be submitted to the concerned State Pollution Board for conduct of Public Hearing.	Para 5: A detailed draft EIA/EMP report shall be prepared in terms of the additional ToRs and shall be submitted to the concerned State Pollution Board for conduct of Public Hearing.	Exemption from Public Hearing in District Cachar.	ONGC conducted Public Hearing in district Cachar, Assam for project “Drilling of Exploratory Wells (25 no.) in PEL & PML blocks of Cachar /Forward Base, in Assam” (EC granted vide F. no. J-11011/229/2012-IA-II (I), dt. 19.04.2017) on 15.09.2016 covering the entire area of District Cachar, Assam.

43.4.2.3 The EAC, after detailed deliberations, noted that the ToR for the project was granted by the Ministry on 25th November, 2016 and there is no proper justification for submitting proposal for public hearing exemption after a span of two years. Accordingly, the Committee was not inclined to recommend the proposal. However, Committee recommended for correcting

the district name as proposed by the project proponent, replacing District Badarpur with Hailakandi.

Agenda No.43.4.3

Expansion of Agrochemicals at Santa Monica Works, Corlim-Ilhas, North Goa (Goa) by M/s Deccan Fine Chemicals (India) Pvt Ltd - Amendment in ToR

[IA/GA/IND2/76138/2018, J-11011/616/2007-IA -II (I)]

43.4.3.1 The proposal is for amendment in the Terms of Reference granted by the Ministry vide letter dated 13th September, 2018 for the expansion of agrochemicals and fine chemicals manufacturing capacity from 9400 TPA to 12650 TPA in an area of 181.84 acres located at Survey No. 28/1, Corlim village, Tiswadi tehsil, North Goa district, Goa in favour of Deccan Fine Chemicals (India) Private Limited, seeking exemption from Public Consultation vide section 7(ii) of the EIA Notification, 2006.

43.4.3.2 The project proponent has requested for amendment in the ToR with the details as under

S.No	Para of ToR issued by MoEF&CC	Details as per the ToR	To be revised as	Justification/Reasons
1	Public Consultation	The Standard ToR for preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed with public consultation as follows:	The Standard ToR for preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed with exemption of public consultation	The unit conducted public consultation on 29 th February, 2008 for enhancement of capacity of manufacturing facilities to 12650 TPA. Scope of expansion of the project and pollution loads are same as per the earlier Environmental Clearance, for which public consultation has already been done

The unit obtained Environmental Clearance vide letter no. J-11011/616/2007-IA-II (I) dated 30.10.2008 and change in name vide letter no. J-11011/616/2007-IA II (I) dated 25.06.2018.

Proponent could not expand manufacturing facilities beyond 9400 TPA due to poor business conditions in the Global Market. The Project expansion was delayed due to uncertain market conditions and change of management.

Details of Production capacity and pollution loads

S. No.	Description	Permitted as per EC	Implemented by	Proposed Enhancement	Total
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			Syngenta		
1	Production capacity - TPA	12650	9400	3250	12650
2	Water requirement - KLD	5475	4509	966	5475
3	Effluent generation - KLD	5000	4000	1000	5000
4	Boiler capacity - TPH	31	31	-	31

43.4.3.3 The EAC noted that proposed products and the production capacity remains same, for which the Ministry had granted environmental clearance on 30th October, 2008 based on public hearing conducted on 29th February, 2008. Further, there would be no change in project area, resource consumption, manufacturing capacity, water consumption, effluent generation etc.

The Committee, after deliberations and in exercise of the provisions contained in para 7 (ii) of the EIA Notification, 2006, recommended for exemption from public hearing to enable submission of the proposal for environmental clearance to the project for expansion of agrochemicals and fine chemicals manufacturing capacity from 9400 TPA to 12650 TPA by M/s Deccan Fine Chemicals (India) Pvt Ltd in an area of 181.84 acres at Survey No. 28/1, Corlim village, Tiswadi tehsil, North Goa district (Goa).

Agenda No.43.4.4

Expansion of Urea and DAP at Southern Petrochemical Fertilisers Complex by M/s Southern Petrochemical Industries Corporation Ltd at Tuticorin (Tamil Nadu) - Reconsideration of amendment/bifurcation of EC

[IA/TN/IND2/73840/2007, J-11011/171/2007-IA II (I)]

43.4.4.1 The proposal is for amendment and bifurcation of environmental clearance dated 5th March, 2008 granted by the Ministry to the project for expansion of Urea and DAP at Southern Petrochemical Fertilisers Complex, Tuticorin (Tamil Nadu) by M/s Southern Petrochemical Industries Corporation Ltd.

It is proposed to bifurcate the environmental clearance dated 5th March, 2008 as per the business transfer agreement between M/s Southern Petrochemical Industries Corporation Ltd (SPIC) and M/s Green Star Fertilizers Limited. Accordingly, M/s SPIC shall be manufacturing Urea (620400 TPA), whereas Di-Ammonium Phosphate (606100 TPA), Single Super Phosphate (350 TPD) and Aluminium Fluoride (10000 TPA) has been vested with M/s Green Star Fertilizers Limited.

43.4.4.2 The project proponent has requested for amendment and bifurcation of environmental clearance with the details as under:

Description	Existing conditions	Proposed Bifurcation of Products and Infrastructure	
		M/s SPIC	M/s GSFL
Products as per EC -F. No J-11011/171/2007-IA II (I) dated 5 th March 2008	Urea :6,20,400 MTPA Di-ammonium Phosphate :6,06,100 MTPA Aluminum Fluoride : 10,000 MTPA	Urea : 6,20,400 MTPA	Di-ammonium Phosphate :6,06,100 MTPA Aluminum Fluoride : 10,000 MTPA
Land Area	252.5 Acres	113.49 Acres	139.01 Acres

Plot No.	239/2,240/2,242,243,244/2,244/3,245,246,247/1,247/2,248/2,249/1B,250/2,251/2B,424/3,425,426/1,427,429/3,439,441,426/2,428,429/3,431/2,432/2,433,434/2,435/2A, 436/1,439	426/2,428,429/3,431/2,432/2,433,434/2,435/2A, 436/1,439	239/2,240/2,242,243,244/2,244/3,245,246,247/1,247/2,248/2,249/1B,250/2,251/2B,424/3,425,426/1,427,429/3,431/2,432/2,433,434/2,435/2A, 436/1,439
Manpower Required (Total: 750 Persons)	750	415	335
Power Requirement (From TNEB) MVA	24.0	17	7
No of DG Sets with Capacity	1 x 1100 KVA 2 x 830 KVA 1 x 500 KVA 1 x 500 KVA	1 x 1100 KVA 2 x 830 KVA 1 x 500 KVA	1 x 500 KVA
Captive Power Plant	24.4 MW	18.4 MW	6 MW
No. of Stacks (Total :24)	24	13	11
Water Requirement (Total:19018 KLD)	19018 KLD	15178 KLD	3840 KLD
Hazardous Waste	Nickel Catalyst :14 m3/yr Co MoxCatalyst :3 m3/yr Iron Catalyst :20 m3/yr Zn O Catalyst :4 m3/yr Used Oil :30KL/Yr V2O5 : 5m3/yr	Nickel Catalyst :14 m3/yr Co MoxCatalyst :3 m3/yr Iron Catalyst :20 m3/yr Zn O Catalyst :4 m3/yr Used Oil : 30KL/Yr	V2O5 : 5m3/yr
Project Cost	--	GFA - 440.78 Crores	GFA – 313.44 Crores
Water Pollution Control Facility (ETP/STP)	Generation: 2160 KLD Disposal:1344 KLD (to Greenstar) Greenbelt: 96 KLD Marine Disposal: 720KLD	SPIC Effluent Generation & Disposal: Generation: 2160 KLD Disposal:1344 KLD (to Greenstar) Greenbelt: 96 KLD Marine Disposal: 720KLD	Greenstar Effluent Generation: Zero Liquid Discharge Plant
STP	Sewage Generation: 330 KLD Treated in combined STP in Township (700 KLD)	Sewage Generation: 198 KLD Treated in combined STP in Township (700 KLD)	Sewage Generation: 132 KLD Treated in combined STP in Township (700 KLD)
Air Pollution Control Equipment's Installed	APC measures – Stack	APC measures – Stack	APC measures – Stack

TSDF Membership	--	IndustrialWaste Management Association no:1458	Industrial Waste Management Association no :1459
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43.4.4.3 The proposal was earlier considered by the EAC in its meeting held on 25-27 June, 2018. The Committee after detailed deliberations, suggested for first transfer of the environmental clearance dated 18th March, 2010 from M/s Southern Petrochemical Industries Corporation Ltd to M/s Green Star Fertilizers Limited. A separate proposal in this regard, consistent with the project details mentioned in the said EC, needs to be submitted on the Ministry's portal.

The proposal for bifurcation of the EC dated 5th March, 2008 only, to be submitted vis-a-vis the business agreement between the two companies.

In response the project proponent has submitted the following:

- The project envisages bifurcation of existing EC dated 5th March, 2008 granted in favour of M/s SPIC, and transfer of EC dated 18th March 2010 from M/s Southern Petrochemical Industries Corporation limited (SPIC) to M/s Green Star Fertilizers Limited (GSFL).
- Transfer of the environmental clearance dated 18th March, 2010 from M/s Southern Petrochemical Industries Corporation Ltd to M/s Green Star Fertilizers Limited was submitted on 4th October, 2018.
- There is a business agreement between M/s Southern Petrochemical Industries Corporation limited (SPIC) and M/s Green Star Fertilizers Limited (GSFL).

43.4.4.4 During deliberations, the EAC noted the following:-

The proposal is for amendment/bifurcation of the environmental clearance dated 5th March, 2008 necessitated due to the business transfer agreement between M/s Southern Petrochemical Industries Corporation Ltd and M/s Greenstar Fertilizers Limited. Accordingly, M/s SPIC shall be manufacturing Urea (620400 TPA), whereas Di-Ammonium Phosphate (606100 TPA), Single Super Phosphate (350 TPD as per EC dated 18th March, 2010) and Aluminium Fluoride (10000 TPA) has been vested with M/s Greenstar Fertilizers Limited.

The project/activity is covered under category A of item 5(a) 'Chemical Fertilizer' of the Schedule to the Environment Impact Assessment Notification, 2006 and requires appraisal at central level by the sectoral Expert Appraisal Committee in the Ministry.

Total fresh water requirement is estimated to be 15178 cum/day for M/s SPIC and 3840 cum/day for M/s GSFL, which is met through Tamil Nadu Water supply and Drainage Board from Thamiraparani river.

With the de-bottlenecking/process optimization measures, specific consumption of naphtha, energy, water and effluent are reduced. Industrial effluent of 2160 cum/day M/s SPIC will be treated in ETP and treated effluent of 1344 cum/day shall be provided to M/s GSFL. Remaining treated effluent of 96 cum/day will be used for gardening and 720 cum/day shall be discharged through marine outfall system. Whereas, in case of M/s GSFL, the unit will ensure Zero Liquid Discharge system.

The monitoring report on compliance status of existing EC (dated 5th March, 2008 in favour of M/s SPIC) conditions, has been forwarded by the Ministry's Regional Office at Chennai vide letter dated 7th January, 2015, and found to be satisfactory.

Further, Ministry has granted EC dated 28th March, 2017 to the project for Changeover of feedstock and fuel from Naphtha to mixed feed stock (Natural gas and Naphtha) in favour of M/s SPIC. It is also informed that the Government has given time for natural gas conversion of the Naphtha based plants till the year 2020, and commitment from M/s ONGC has been received regarding supply of natural gas

The additional details submitted by the project proponent found to be satisfactory, addressing the concerns raised by the Committee.

43.4.4.5 *The Committee, after detailed deliberations, recommended for amendment/bifurcation of the environmental clearance dated 5th March, 2008 in favour of M/s SPIC and M/s GSFL with the respective details mentioned in para 43.4.4.2 above. The Committee further suggested for the terms and conditions stipulated in the said environmental clearance remaining the same.*

Day Two: 27th November, 2018

43.5 Environmental Clearance

Agenda No.43.5.1

Expansion of Pesticides industry and pesticide specific intermediates (excluding formulations) at Plot No. SPM-28, Sterling SEZ & Infrastructure Ltd At & Po- Sarod, Taluk-Jambusar, District Bharuch (Gujarat) by M/s PI Industries Ltd-For reconsideration of Environmental Clearance

[IA/GJ/IND2/61999/2017, J-11011/511/2010-IA II (I)]

43.5.1.1 The project proponent and the accredited Consultant M/s San Envirotech Pvt Ltd has made detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance for expansion of existing capacity of Pesticides Technical its intermediates with addition of new products from 8593.2 MT/annum to 44240 MT/annum at Plot No. SPM-28 & 29/1, Sterling SEZ & Infrastructure Ltd., At & Po: Sarod, Tal: Jambusar, District: Bharuch, Gujarat by M/s PI Industries Ltd.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 21st meeting held during 27-29 March, 2017 and recommended Terms of Reference (ToRs) for the project. The ToR has been issued by Ministry vide letter No. J-11011/511/2010-IA-II (I) dated 29th May, 2017.

(iii) All pesticides industry and pesticide specific intermediates (excluding formulations) units are listed at S. No. 5(b) along with fine chemicals under 5(f) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Ministry has earlier issued Environmental Clearance vide letter No. J-11013/511/2010-IA.II (I) dated 4th April, 2011 for manufacturing of pesticides & its intermediates.

(v) Existing land area is 90286 m², additional 42000 m² land will be required. Thus, total land area after expansion is 1,32,286 m².

(vi) Industry has already developed greenbelt in an area of 29790 m² out of 90286 m² of project area, after expansion unit will increasing the greenbelt area to 43650 m² which will be 33% of the total area.

(vii) The estimated project cost after proposed expansion will be Rs.600 crore including existing investment of Rs.393.0 crore. Total capital cost earmarked towards environmental pollution control measures will be Rs. 50 crore and the Recurring cost (operation and maintenance) will be about Rs. 20.0crore per annum.

(viii) Total employment including direct and indirect after expansion will be 350 persons. Industry proposes to allocate Rs.10.35 Crores i.e. 5% of total project cost towards Corporate Social Responsibility.

(ix) There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within the 10 km distance of the project site. Coastal area of Gulf of Cambay is at 2.5 km from the project site.

(x) Ambient air quality monitoring was carried out at 8 locations during January, 2017 to March, 2017 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (60.1-67.4 µg/m³), PM_{2.5} (28.8 - 32.9 µg/m³), SO₂ (8.7- 10.3 µg/m³) and NO_x (13.2-17.7 µg/m³) were observed. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs from the proposed project would be 1.646µg/m³, 0.950µg/m³, 3.671µg/m³, 0.071 µg/m³, 0.035 µg/m³, 0.106 µg/m³, 0.020 µg/m³ 0.008 µg/m³ with respect to PM, SO₂, NO_x, HCl, Cl₂, NH₃, H₂S, HC and dust of pesticides. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(xi) Total water requirement is 2873 m³/day of which fresh water requirement is 2667 m³/day and 206 m³/day will be recycled/treated water, which will be met from SEZ water supply.

(xii) Total Industrial effluent generation will be around 1235 KLD & 50 KLD from Domestic. Industrial 1235 KLD effluent divided into two parts; one part of 522 KLD process effluents and second part dilute stream will be divide into 3 parts (i) washing – 150 KLD, (ii) lab – 20 KLD directly taken into ETP and (iii) utility effluent - @543 KLD will be further passed through RO and RO reject – 66 KLD along with part of blow down – 271 KLD taken to ETP. Process effluent of 522 KLD is further divided into 3 parts based on the concentration, one part of 170 KLD dilute stream which is directly taken into ETP, 232KLD of high COD High TDS stream which goes to MEE along with 60 KLD of scrubber water and the third part of 60 KLD of highly concentrated organic stream which is sent for incineration. Condensate of 273 KLD from MEE is taken into ETP for further treatment. Total 1000 KLD (50 KLD domestic + 950 KLD industrial) waste water goes to ETP for treatment and final disposal.

(xiii) 500 KLD of lean stream i.e. having low TDS and low COD from adjacent PI Unit-II will be treated in the ETP of Unit-I. Also 60 KLD of organic Waste from adjacent PI Unit-II will be incinerated in the incineration facility of Unit-I.

(xiv) The unit proposes to discharge Low TDS and low COD effluent quantity of 1500 m³/day into Gulf of Cambay after treatment through approved channel of VECL.

(xv) Power requirement 25000 kVA will be met from DGVCL. Existing 2 nos. of D.G.Set with capacity of 4000 kVA each and additional four D.G sets with capacity of 4000 kVA each will be installed and used as standby during power failure. Stack (height 30 meters) will be provided as per CPCB norms to the proposed DG set.

(xvi) Existing unit has three boilers of 6 TPH (1 nos.) and 17 TPH (2 nos.) and Thermic Fluid Heater (60 lakhs kcal/hr.). Natural Gas or Furnace Oil will be used as fuel. After proposed expansion quantity of Natural Gas or Furnace Oil will be increased to 200440 Nm³/day or 204 MT/day respectively). Boiler & TFH is connected with stacks of adequate stack height of 54 m & 20 m respectively.

(xvii) Existing Process emission is from vents attached to process stack MPP-5,6,7,8,9, Hydrogenation plant (2 Nos. having common vent), MEE process stack and Rotary kiln Incinerator for which Alkali Scrubber, Hypo scrubber followed by alkali scrubber, and Venturi scrubber followed by alkali scrubber is used as APCM. There will be no additional process emissions source from the unit after expansion. Scrubbers will be modified as per requirement.

(xviii) Details of Solid waste/Hazardous waste generation and its management.

S. No.	Type of Solid Waste	As per HWM Rules, 2016	Quantity (MTPM)			Disposal method
			Existing	Proposed	Total	
1	ETP Sludge & MEE salt	35.3	395.41 MTPM 1216.67 MTPM	504.59 MTPM 1483.33 MTPM	900 MTPM 2700 MTPM	Collection, Storage, Transportation & Disposal in approved common TSDF/co-processing.
2	Used Oil	5.1	15.16 KL/month	9.84 KL/month	25.0 KL/month	Collection, Storage, and reused or sold to registered refiners.
3	Residues after distillation, fractionation, condensation recovery etc./ Solvent Distillation Residue	20.3	243.33 MTPM	56.67 MTPM	300 MTPM	Collection, storage, & Incineration in house or in approved common incineration facility or co-Processing/incineration.
4	Spent Carbon	36.2	16.67 MTPM	33.33 MTPM	50 MTPM	Collection, storage & Incineration in house or in approved common incineration facility or Send to Authorized recyclers/ re-processors for recovery/co-processing
5	Process Waste (Process Waste Sludge/residue)	29.1	60.76 MTPM	1739.24	1800 MTPM	Collection, storage, & Incineration in house or in approved common incineration facility or Co-processing/co-incineration facility
6	Incineration Ash	37.2	456.25 MTPM	543.75 MTPM	1000 MTPM	Collection, Storage, Transportation & Disposal in approved common TSDF site.
7	Discarded containers / drums/ liners	33.1	30.41 MTPM	269.59 MTPM & 1000	300 MTPM & 10000	Recycled or sold to authorized scrap dealer or end users or disposal in approved common

				Nos./month	Nos./month	TSD/ incineration in-house as well approved common facility or sent for common decontamination facility
8	Date Expired off specification products	29.3	0.91 MTPM	99.09 MTPM	100 MTPM	Collection, storage, & Incineration in house or in approved common incineration facility/co-processing
9	Spent/Crude Solvent	29.4	121.67 MTPM	1378.33 MTPM	1500 MTPM	Collection, storage, & Incineration in house or at authorized CHWI facility or Co-processing or reuse by in-house solvent distillation. In Some of the product where purity requirements are very high, recycling is not possible due to build-up of moisture or some specific impurity, such solvents are required to be sent to authorized as well as CPCB registered solvent distillation unit. Sold to GPCB Authorized recyclers/ distillers / re-processor
10	Spent Catalyst	29.5	--	50 MTPM	50 MTPM	Collection, storage & Incineration in house or in approved common incineration facility or co-processing, Send to Authorized recyclers/ re-processors for recovery or sent for regeneration to supplier.
11	Spent Acid	29.6	--	1500 MTPM	1500 MTPM	Collection, storage, & Incineration in house or in approved common incineration facility or co-processing, Send to Authorized recyclers/ re-processors, re user.
12	Spent Resin	34.2	0.125 MTPM	1.875 MTPM	2 MTPM	Collection, storage, transportation and disposal in approved common TSD/.

(xviii) Public Hearing is exempted as per para 7(i) III stage (3) (i) (b) of EIA Notification, 2006.

(xix) Following is the list of existing & proposed products:

(a) Existing product list

Sr. No.	Common Name	IUPAC Name	Quantity (MTPA)	Category as per EIA Notification, 2006
1	CPFK	1-cyclopropy-2 (2 fluorophenyl) ethanone	55	5(b)
2	CNZ	Cyanazine	70	5(b)
3	AE473	(2-{2-chloro-4-mesyl-3-[(RS)]- tetrahydro-2-furylmethoxymethyl} benzoyl)- cyclohexane-1, 3-Dione	50	5(b)
4	IBCZ	(4-chlorophenyl) methyl N-(2,4-dichlorophenyl)-1H-1,2,4- triazole-1-ethanimidothioate	40.2	5(b)
5	MY-71	3-[1-(3,5-dichlorophenyl)-1- methylethyl]-6-methyl-5-phenyl- 2,3-dihydro-4H-1,3-oxazin-4-one	10	5(b)
6	MY-100	3-[1-(3,5-dichlorophenyl)-1- methylethyl]-3,4-dihydro-6- methyl-5-phenyl-2H-1,3-oxazin-4-one	25	5(b)
7	PFD	N-{3-isobutyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl) ethyl]phenyl}-1,3,5-trimethylpyrazole -4-carboxylic amide	100	5(b)
8	TLF	Tolfenpyrad	225	5(b)
9	TBFN	4-chloro-N-[[4-(1,1-dimethylethyl) phenyl] methyl]- 3-ethyl-1-methyl-1H-pyrazole-5-carboxamide	120	5(b)
10	PYCL	1-(3-chloro-4,5,6,7-tetrahydropyrazolo [1,5-a]pyridin-2-yl)-5-[methyl(prop-2-ynyl)amino] pyrazole-4-carbonitrile	150	5(b)
11	Lake Palace	3-[[[(2,5-dichloro-4- ethoxyphenyl)methyl] sulfonyl]- 4,5-dihydro-5,5-dimethylisoxazole	240	5(b)
12	Octopussy	3-[[[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)-1Hpyrazol- 4-yl]methyl]sulfonyl]-4,5-dihydro-5,5-dimethylisoxazole	1500	5(b)
13	2C6SMT	3-Chloro-2-Methylthioanisole	140	5(b)
14	DMI	2,6-dimethylindanone	600	5(b)
15	ORST	Orysastrobin	170	5(b)
16	PCM	N-(2 Chloro-4 Fluoro-5-((ethoxy carbonyl)-amino)-benzoyl)-Niso- propyl-N-methyl-sulfamid	1000	5(b)
17	ACH	3-(difluoro methyl)-1-methyl-1Hpyrazole- 4-carboxylic acid	200	5(b)
18	Star-1	Pethoxamid Technical	48	5(b)
19	CFPA	3,4-dichloro-5-fluorobiphenyl-2- amine	300	5(b)
20	AMB	3,4,5-Trifluoro-aminobiphenyl	100	5(b)
21	PRZ	Difluoro Methyl-N-MethylPyrazolic acid	300	5(b)
22	DCPA	1,3-dimethyl-5-chloro-4-pyrazolylcarboxylic acid chloride	360	5(b)
23	CMTB	2-chloro-4-(methylsulfonyl)-3- [(2,2,2-trifluoroethoxy) methyl] benzoic acid	300	5(b)
24	ZXMD	Zoxamide	100	5(b)
25	AZST	Methyl (E)-2-{2-[6-(2-cyanophenoxy) pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate	100	5(b)
26	CDMB	4-chloro 2,6-dimethyl-bromobenzene	300	5(b)
27	PMT	Phosmet	100	5(b)
28	Flub/SOD	N-(2-Methylsulfinyl-1,1-dimethyl-ethyl)-N'-(2-	300	5(b)

		methyl-4- [1,2,2,2-tetrafluoro-1- (trifluoromethyl) ethyl]phenyl} phthalamide		
29	CCITM	Disodiumcyanocarbonodithioimidate	140	5(b)
30	IBA	3-(2-Methylpropyl)aniline	50	5(b)
31	FNZQ	4-tert-Butylphenethyl quinazolin-4-yl ether	100	5(b)
32	DMAI	(1R,2S) and (1S,2S)-2,6-dimethyl-2,3-dihydro-1H-inden-1-amine	200	5(b)
33	Tembuttrion	2-({2-chloro-4-(methylsulfonyl)-3-[(2,2,2-trifluoroethoxy) methyl] phenyl}carbonyl)cyclohexane-1,3-dione	300	5(b)
34	CCMP	2-Chloro-5-(chloromethyl)pyridine	300	5(b)
35	HFMOP	1,1,1,3,3,3-hexafluoro-2-methoxypropane	300	5(b)
36	MDO	2,2-Dimethyl-4-methylidene-1,3- dioxolane	100	5(b)
37	FMTQ	2-Ethyl-3,7-dimethyl-6-(4-(trifluoromethoxy)phenoxy) quinolin-4-yl methyl	100	5(b)
Total			8593.2	

(b) Proposed product list

S. No.	Groups	Quantity (MTPA)	Category as per Notification, 2006 EIA
Insecticides and Intermediates			
1	Amino Triazines (THM etc.)	4800	5(b)
2	Diamides(Flub, SOD, MMTPA/SAA, etc.)		5(b)
3	Hydazinopyridines For e.g. (CHDP etc.)		5(b)
4	Nicotinamides (TFNA etc.)		5(b)
5	Nitroguanidines (BNHT, AETF etc.)		5(b)
7	Phenyl organothiophosphates (PTF etc.)		5(b)
8	Phthalimides (PMT etc.)		5(b)
9	Pyrazole-diamides (Q4039, YB449, DPX, BPCA etc.)		5(b)
10	Quinazolines (FNZQ etc.)		5(b)
11	Quinolinyl carbonates (FMTQ etc.)		5(b)
12	Thiazolidines(CCITM, CCMP etc.)		5(b)
Herbicides and Intermediates			
1	Alkylazines (DMI, DMAI etc.)	5650	5(b)
2	Amide-triazolones(IAT etc.)		5(b)
3	Aryloxyphenoxy propionates (FPES etc.)		5(b)
4	Benzoyl cyclohexanediones (AE473, Tembutrion, 747 Ether, 2C6SMT etc.)		5(b)
5	Furanones (Flurt etc.)		5(b)
6	Intermediate of Herbicides (MTAA etc.)		5(b)
7	Active nitrile Herbicides (PYCL etc.)		5(b)
8	Oxazinones (MY-100 etc.)		5(b)
9	Oxazoles (Lake Palace etc.)		5(b)
10	Oxazolidinones (KPP etc.)		5(b)
11	Phosphinates (MPBS etc.)		5(b)
12	Pyrimidinediones(PCM, EATB etc.)		5(b)
13	Pyrimidinyloxybenzoic acid (Bispyribac Sodium etc.)		5(b)
14	Pyrimidinylsulfonylureas (FRSF, ESPS etc.)		5(b)
15	Sulfonylureas (AMSB, OTMA etc.)		5(b)
16	Triazines(CNZ etc.)		5(b)

17	Triazopyrimidinesulfonamides (DTPBS etc.)		5(b)
Fungicides and intermediates			
1	Active amide Fungicides (SSF-126/Oxime, TRFRN, FNXL, MIPD, ORST etc.)	3550	5(b)
2	Benzamides (ZXMD etc.)		5(b)
3	Carboxamides (AMB etc.)		5(b)
4	Organophosphates (Kitazin etc.)		5(b)
5	Pyridine Fungicides (CTPE etc.)		5(b)
6	Pyrimidines (AZST etc.)		5(b)
7	Quinoxalines (CMTH etc.)		5(b)
8	Triazoles (IPCZ, FTL, FOX IBCZ, etc.)		5(b)
Pyrazoles			
1	n-alkyl 3,4,5 substituted pyrazoles(PFD, TBFN,TLF,IBA,OCTOPUSSY,MY-71, MTP, DCPA, CFPA, ACH, BDB, PRZ etc.)	5500	5(b)
Fine Chemicals			
1	Substituted Anthraanilic acid (ACBM etc.)	7500	5(f)
2	Substituted 1,2,4-Triazole (AMT etc.)		5(f)
3	Substituted tetrahydropyran (ATHP etc.)		5(f)
4	Dimethyl halo substituted benzene (CDMA, CDMB etc.)		5(f)
5	Substituted cyclopropylethanone (CPFk etc.)		5(f)
6	Substituted alkyl diamine (DAEEA etc.)		5(f)
7	Substituted dihalo pyridine (DCTFP etc.)		5(f)
8	Substituted dimethyl dioxane methanol (DHD etc.)		5(f)
9	Substituted Butanone (DMB etc.)		5(f)
10	Substituted Butanoic acid (EMBA etc.)		5(f)
11	Substituted Hydrazine (MMH,UDMH, SDMH etc.)		5(f)
12	Substituted Phenothiazine (10-H Phenothiazine etc.)		5(f)
13	Substituted diphenyl ether (Metaphenoxy Benzaldehyde etc.)		5(f)
Fluorospeciality products			
1	Fluoro substituted alkyl amine (DFEA etc.)	2000	5(f)
Pharma intermediates			
1	Substituted triazole carboxylate (EMTC etc.)	1000	5(f)
Specialty Chemicals			
1	Substituted cyclohexane carboxylate (ETMD etc.)	1000	5(f)
2	HeptaFluoro Alkane (HFMOF etc.)		5(f)
3	Substituted 1,3-dioxalane (MDO etc.)		5(f)
4	Substituted Isobutyrate (CMIBA etc.)		5(f)
5	Substituted phenyl ether (CMTB etc.)		5(f)
Performance Chemicals			
1	Substituted phenyl morpholine Ketone (PCBM etc.)	13000	5(f)
2	Catechol mixed salt (Negolyte etc.)		5(f)
New R&D product for Pilot scale		240	--
Total		44240	

List of By-Products

S. No.	By Products	Quantity (MTPA)
1	27% NaSH	1000
2	30% HCl	12000
3	Ammonia Solution 15%	1000
4	SMM	00
5	H ₂ SO ₄	300
6	Distill Solvent	6900
7	Sodium Propionate	2400
8	NaBr/MgBr	60000
9	Acetic Acid	1200
10	Spent Catalyst	00
11	Orthocresol	300
12	Propionic Acid	900
13	HBr	1000
14	Sodium hypochloride solution	900
15	AlCl ₃	2300
16	Ammonium Chloride	500
Total		90700

43.5.1.2 The proposal was last considered by the EAC in its meeting held on 27-29 August, 2018, wherein the EAC insisted for more inputs and clarifications in respect of the following:

- Details of individual products in each group along with their quantum, CAS, LD₅₀ values etc. The products having LD₅₀ less than 1000 mg/kg, reported to be highly toxic, need to be deleted. The remaining products need to be reviewed for the toxicity involved and biodegradability, to revise the product list accordingly.
- Confirmation on the treated effluent discharge, both from Unit-I & Unit-II, to the effluent channel operated by M/s PETL, not exceeding the present allocation of 1.5 MLD. That, in fact, requires water balance, effluent treatment, etc to be revised accordingly for both the units.
- Comments from GPCB on the representation from Shri Girishbhai K Patel, vis-à-vis their monitoring report dated 3rd April, 2018 on compliance status of existing EC conditions.

43.5.1.3 Parawise replies submitted by the project proponent in response to the above observations, are as under: -

S. No.	Clarifications/inputs sought by the EAC	Reply submitted by the project proponent
1	Details of individual products in each group along with their quantum, CAS, LD ₅₀ values etc. The products having LD ₅₀ less than 1000 mg/kg, reported to be highly toxic, need to be deleted. The remaining products need to be reviewed for the toxicity involved and biodegradability, to revise the product list accordingly.	PP has requested the committee to revise the LD ₅₀ value restriction from suggested LD ₅₀ <1000 mg/Kg to LD ₅₀ < 100 mg/Kg based on the below listed reasons: a) As it is an export oriented unit, they are not placing any of its products in the Indian market. Hence their products will not harm the Indian farmer. b) The LD ₅₀ values listed are for the active ingredients in the product. However, when the product is applied in the field it undergoes dilution which further reduces toxicity values thereby reducing the overall potency of the product to cause any harm.

		Based on the above, PP has revised the product list and has removed products with LD50 < 100 mg/Kg from the said list, which is submitted to MoEFCC. Keeping this proposal in view unit has revised the product list and has removed MTN (LD₅₀< 25 mg/Kg) from the said list.
2	Confirmation on the treated effluent discharge, both from Unit-I & Unit-II, to the effluent channel operated by M/s VECL, not exceeding the present allocation of 1.5 MLD. That, in fact, requires water balance, effluent treatment, etc. to be revised accordingly for both the units.	PP has reduced the effluent discharge from Unit-I to 1.0 MLD from the earlier proposed 1.172 MLD. This will result in 1.5 MLD of total effluent discharge from Unit-I and Unit-II, which is in line with the recommendation of the committee. Revised water balance in this regard has been submitted to the Ministry. PP has obtained necessary permission from M/s VECL for discharge of the aforementioned quantity accorded vide their letter VECL/BRD/MD/550 dated 27/06/2012. Letter is already submitted to MoEFFCC.
3	Comments from GPCB on the representation from Shri Girishbhai K Patel, vis-à-vis their monitoring report dated 3 rd April, 2018 on compliance status of existing EC conditions.	GPCB comments on representation by Sh. Girishbhai K Patel are submitted to Ministry. GPCB vide their letter GPCB/BRCH/CCA-67(2)/ID-28087/162670 dated 15/10/2013 had informed the complainant that M/s. PI industries Limited located on plot no.SPM-28, Sterling SEZ & infrastructure limited, Sarod, Bharuch has been accorded Environment Clearance by MoEF and NOC has been accorded to M/s Sterling SEZ & Infrastructure Limited for laying of pipeline up to the guard pond of M/s VECL for discharge of treated effluent. GPCB has sent this correspondence directly to MoEFCC office vide letter GPCB/BRCH-B/CCA-67(6)/ID-28087/470929 dated 03/10/2018. A copy of the letter is submitted.

43.5.1.4 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of pesticides technical and its intermediates manufacturing unit from 8593.2 TPA (37 nos of products) to 44240 TPA (61 nos of products) by M/s PI Industries Ltd (Unit-1) in a total area of 132286 sqm at Plot No.SPM-28 & 29/1, Sterling SEZ & Infrastructure Ltd, Post Sarod, Taluka Jambusar, District Bharuch (Gujarat).

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' and item 5(f) 'Synthetic Organic Chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 29th May, 2017 followed by amendment with exemption from public hearing under the provisions as per Para 7 Stage III. (3) (i) (b) of the EIA Notification, 2006, as plant is located in notified Industrial Estate.

Total water requirement is estimated to be 2873 cum/day, including fresh water requirement of 2667 cum/day proposed to be met from the SEZ water supply. The remaining water of 206 cum/day shall be obtained from recycled/treated water.

Total effluent generation from industrial operation will be 1235 cum/day and 500 cum/day (from adjacent unit of PI Industries), which would be treated in the ETP followed by MEE & RO. The RO permeate of 206 cum/day will be recycled/reused, and the remaining treated effluent of 1500 cum/day shall be sent to Gulf of Cambay through approved channel of VECL.

The expenditure towards CER for the project would be 1% of the project cost as committed by the project proponent.

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 also found additional information submitted by the project proponent to be satisfactory.

Ministry has earlier issued environmental clearance dated 4th April, 2011 for manufacturing of pesticides & its intermediates in favour of M/s PI Industries Limited. The monitoring report on compliance status of EC conditions forwarded by the Gujarat State Pollution Control Board vide letter dated 3rd April, 2018 found to be satisfactory.

Consent to Operate for the existing capacity has been obtained from the State PCB vide letter dated 17/09/2018., which is valid up to 4/02/2023.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *The treated effluent of 1500 cum/day shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, for discharge into Gulf of Cambay through approved channel of VECL.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
 - (a) *Reactor shall be connected to chilled brine condenser system.*
 - (b) *Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
 - (c) *The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
 - (d) *Solvents shall be stored in a separate space specified with all safety measures.*
 - (e) *Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*

- (f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- (g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- Total fresh water requirement shall not exceed 2667 cum/day to be met from SEZ water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.
- Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system
- Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- 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 Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.
- Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- 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.
- 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, 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.
- At least 1% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- 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.

Agenda No.43.5.2

Proposed melamine formaldehyde resin & phenol formaldehyde resin manufacturing unit at Survey No.706 paiki 2 and 3, village Amodra, Taluka Prantij, District Sabarkantha (Gujarat) by M/s Surfica India Ltd - For reconsideration of Environmental Clearance

[IA/GJ/IND2/69379/2017, IA-J-11011/465/2017-IA-II(I)]

43.5.2.1 The project proponent and the accredited consultant M/s T R Associates made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environment clearance to the project for setting up resin manufacturing unit (Phenol Formaldehyde Resin and Melamine Formaldehyde Resin) at Survey No.706 Paiki 2 & 3, Village Amodra, Taluka Prantij, District Sabarkantha (Gujarat) by M/s Surfica India Ltd.

(ii) The project proposal was granted standard TOR vide Ministry's letter No. J-11011/465/2017-IA.II (I) dated 26/10/2017.

(iii) All Synthetic Organic Chemicals Industry projects, located outside the notified industrial area/estate and not fall into small scale unit criteria are listed at S.N. 5(f) of schedule of Environmental Impact Assessment (EIA) notification under Category 'A' and are appraised at Central level by the Expert Appraisal Committee (EAC).

(iv) Total 19,966 m² land area will be used for proposed project. Industry will develop greenbelt in an area of 33 % i.e. 6,580 m² out of 19,966 m² area of the project.

(v) The estimated project cost is approx. Rs.1.3 Crores.- Total capital cost earmarked towards environmental pollution control measures is Rs. 45 Lakhs and the recurring cost (operation and maintenance) will be about Rs. 9.4 Lakhs per annum.

(vi) Total employment will be 100 persons as a direct. Industry proposes to allocate Rs. 2.6 Lakhs @ of 2.0% towards Corporate Environment Responsibility.

(vii) There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River Khari is flowing at a distance of 2.11km in ESE direction and River Hathmati is flowing at a distance of 7.7 km in WNW direction. Khara Lake is situated at 1.30km in WNW direction and Hathmati Canal is flowing at a distance of 3.91 km in NNW direction.

(viii) Ambient air quality monitoring was carried out at 8 locations during October 2017 - December 2017 and the baseline data indicates the ranges of concentrations as: PM₁₀ (54.05 to 81.36 µg/m³), PM_{2.5} (24.97 to 59.57 µg/m³), SO₂ (7.21 to 31.69 µg/m³), NO₂ (7.04 to 45.55 µg/m³), VOC is B.D.L. and CO is N.D. respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.14 µg/m³, 4.904 µg/m³ and 2.98 µg/m³ with respect to PM₁₀, SO₂ and NO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(ix) Total water requirement is 57.2 m³/day out of which fresh water requirement is 38.1 m³/day and which will be met from Bore well.

(x) Industrial effluent of 5.5 m³/day will be treated through Effluent Treatment Plant to achieve Zero Liquid Discharge. Domestic effluent of 7.6m³/day will be taken to STP for treatment.

(xi) Power requirement of proposed project will be 500 HP and will be met from Uttar Gujarat Vij Company Limited (UGVCL). 350 KVA D. G. Set will be used as standby during power failure. Stack (height 6 m) will be provided as per CPCB norms to the proposed D. G. Set.

(xii) Briquettes/Imported Coal/Pellets fired 4 million Kcal/hr Hot Water Generator and 25 Lakh Kcal/hr Thermic Fluid Heater will be installed. Multi - Cyclone Separator followed by Bag Filter with a stack height of 30 m will be installed for controlling the Particulate Emissions within statutory limit of 150mg/Nm³.

(xiii) Details of Process emissions generation and its management

Sr. No.	Vent attached to	Vent Height	Expected Pollutant	APC System	Quality of pollutant
1.	Dryer	11 m	Methanol	Condenser followed by Activated Carbon Filter	As per GPCB Norms

(xiv) Details of solid waste/hazardous waste generation and its management.

S. No.	Description	Category	Quantity (TPA)	Management
1.	ETP Sludge & evaporation residue	35.3	33	Collection, storage and disposal at approved TSDF Site
2.	Used / Spent Oil	5.1	0.048	Collection, storage and used within premises as a lubricant / sold to registered recycler.
3.	Discarded Plastic bags/ barrels	33.1	4.08	Collection, storage & sold to authorized vendor

(xv) Public hearing for the proposed project has been conducted by the State Pollution Control Board on 19/06/2018. The main issues raised during the Public Hearing are related to employment potential, preventive measures to reduce impact on surrounding environment and CER activities.

(xvi) Following are the list of proposed products:

S. No.	Product	Capacity (TPM)
1	Phenol Formaldehyde Resin	900
2	Melamine Formaldehyde Resin	300

43.5.2.2 The proposal was last considered by the EAC in its meeting held on 24-26 September 2018, wherein the EAC considering the critical nature of ground water in the area, suggested that the fresh water demand would be reduced by increasing the RO efficiency/replacing cooler tower with chilling tower/rain water harvesting etc, and accordingly desired for revised water balance and the effluent treatment mechanism.

The project proponent has submitted the revised water balance and reduced the fresh water requirement from 38.1 cum/day to 20.68 cum/day.

43.5.2.3 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up Resin manufacturing unit of total capacity 1200 TPM (Phenol Formaldehyde Resin-900 TPM and Melamine Formaldehyde Resin-300 TPM) by M/s Surfica India Ltd in a total area of 19,966 sqm at Survey No. 706 Paiki 2 & 3, Village Amodra, Taluka Prantij, District Sabarkantha (Gujarat).

The project/activity is covered under category A of item 5(f) 'Synthetic Organic Chemicals' of schedule to the Environment Impact Assessment (EIA) Notification under category 'A' and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC) in the Ministry.

The ToR for the project was granted on 26th October, 2017. Public hearing was conducted by the State Pollution Control Board on 19th June, 2018.

Total water requirement is estimated to be 32.78 cum/day, which includes fresh water of 20.68 cum/day to be met from the ground water/borewell supply. Application in this regard has been submitted to CGWA. However, the project proponent has committed to reduce the fresh water requirement from 20.68 to 9.41 cum/day.

Industrial effluent of 5.63 cum/day generated will be treated through Effluent Treatment Plant. Domestic effluent of 7.6 cum/day will be taken to STP for treatment. Treated water of 12.1 cum/day will be recycled in the process and for green belt development. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

The expenditure towards CER for the project would be 2% of the project cost as committed by the project proponent.

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. Issues raised during the public hearing have been duly addressed by the project proponent. The Committee also found additional information submitted by the project proponent to be satisfactory.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.*

- *Coal shall not be used as fuel in the boiler, instead bio-fuel/briquettes/bagasse shall be preferred.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
 - (a) *Reactor shall be connected to chilled brine condenser system.*
 - (b) *Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
 - (c) *The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
 - (d) *Solvents shall be stored in a separate space specified with all safety measures.*
 - (e) *Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
 - (f) *Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
 - (g) *All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 9.41 cum/day to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *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 Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.*
- *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.*
- *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, 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.*
- *All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.*
- *At least 2% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*

- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- 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.

Agenda No.43.5.3

Expansion from 60 KLD to 150 KLD (60 KLPD to 90 through modification and from 90 KLPD to 150 KLPD by installing a new 60 KLPD plant) grain/molasses based distillery of M/s Rana Sugar Ltd, (Distillery Division) Village Laukha, District Tarn Taran (Punjab) - For reconsideration of Environmental Clearance

[IA/PB/IND2/63809/2017, J-11011/175/2017-IA-II(I)]

43.5.3.1 The project proponent and the accredited Consultant M/s CPTL-EIA Division made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project for expansion of grain/molasses based distillery from 60 KLPD to 150 KLPD (60 KLPD to 90 through modification and from 90 KLPD to 150 KLPD by installing a new 60 KLPD plant) at Village Laukha, District TarnTaran (Punjab) by M/s Rana Sugars Limited (Distillery Division).

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 23rd meeting held during 3-5 May, 2017 and recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter No.J-11011/175/2017-IA-II (I) dated 30th May, 2017.

(iii) All 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).

(iv) Ministry had issued EC earlier vide letter no. J-11011/9/2005-IA.-II (I); dated 26th April, 2005 to the existing project of 60 KLPD Distillery Unit in favour of M/s Rana Sugars Limited (Distillery Division).

(v) Existing land area is 161874 sqm. No additional land is required for the proposed expansion.

(vi) Industry has already developed/will develop greenbelt in an area of 33 % i.e. 53,418 sqm out of total area of the project.

(vii) The estimated project cost is Rs. 145 Crores including existing investment of Rs. 75 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 10

Crores and the Recurring cost (operation and maintenance) will be about Rs 80 Lakhs per annum.

(viii) Total Employment will be 175 persons as direct & indirect after expansion. Industry proposes to allocate Rs 1.42 Lakhs towards Corporate Social Responsibility.

(ix) There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. There is no water body near the project.

(x) Ambient air quality monitoring was carried out at eight locations during 1st October to 31st December, 2017 and the baseline data indicates the ranges of concentrations as: PM₁₀ (50.6-86.6µg/m³), PM_{2.5} (24.2-45.2µg/m³), SO₂ (6.0-15.1µg/m³) and NO₂ (11.0-22.6µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 87.9µg/m³ with respect to PM₁₀. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(xi) Total water requirement is 948 m³/day which will be met from extraction of ground water for existing plant and water requirement for proposed expansion will be met through surface water. Permission from CGWA is already obtained.

(xii) The proposed project would have "Zero liquid discharge."

(xiii) The total Power requirement of the unit after expansion will be 4.4 MW. The existing co-gen power plant is 1.6 MW which will be replaced with 2.4MW highly efficient turbines for the modernization/expansion plant. There will be another 2.0 MW turbine for 60KLPD plant. Existing unit has two DG sets of 500KVA capacity which will be used as standby during power failure. Stack with adequate height will be provided as per CPCB norms to the proposed DG sets.

(xiv) Existing unit has 14 TPH boiler with 1.6 MW turbine which will be upgraded to 2.4MW and one new 15TPH boiler for steam generation and 2.0MW turbine will be installed. ESP will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boiler.

(xv) Details of Process emissions generation and its management: -

All major sources of air pollution are/will be provided with ESP as APCD to maintain PM emissions below permissible limits (i.e. < 50mg/Nm³).

Proper maintenance of vehicles are /will be done regularly.

Green belt has been developed along the plant premises as dust preventive barrier.

(xvi) Details of Solid waste/Hazardous waste generation and its management: -Ash from boiler is being/will be sold to brick manufactures/disposed as per MoEF&CC notification. Spent wash is being evaporated and burnt in incinerator.

(xvii) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 30/05/2018. The main issues raised during the public hearing are related to 'Benefits to the local people from the establishment of the project.'

(xviii) Details of Certified compliance report submitted by RO, MoEF&CC:- The compliance reports vide F.No.5-54/2003-RO (NZ)/48 were submitted on dated 11/01/2016.

(xix) No litigation is pending against the proposal.

(xx) The details of products and capacity as under: It is proposed to increase the overall capacity of existing Molasses/Grain based distillery from 60 KLPD to 150 KLPD (60KLPD to 90KLPD through modification and 90 KLPD-150 KLPD by installing a new 60 KLPD molasses/grain based distillery. Also the co-generation would be enhanced from 1.6MW to 4.4MW.

43.5.3.2 The proposal was last considered by the EAC in its meeting held on 24-26 September, 2018, wherein the EAC insisted for additional information/inputs and clarifications in respect of the following:-

- Proposed fresh water requirement of 948 cum/day needs to be reduced through improvement in the process. The water balance and effluent treatment process needs to be revised accordingly.
- Action plan for implementation of Zero Liquid Discharge system.
- Action taken report in respect of non-complied points reported in the monitoring report dated 27th August, 2018, needs to be forwarded to the Ministry through the Regional Office.
- Plan for Corporate Environment Responsibility (CER) to be submitted.
- Action plan for ash management.

43.5.3.3 Parawise replies submitted by the project proponent in response to the above observations, are as under: -

S. No.	Clarifications/inputs sought by the EAC	Reply submitted by the project proponent
1	Proposed fresh water requirement of 948 cum/day needs to be reduced through improvement in the process. The water balance and effluent treatment process needs to be revised accordingly.	PP submitted the revised water balance and reduce the fresh water requirement from 948 cum/day to 900 cum/day.
2	Action plan for implementation of Zero Liquid Discharge system.	Existing industry already adopted ZLD. Action plan for implementation of Zero Liquid Discharge system for proposed expansion is also submitted.
	Action taken report in respect of non-complied points reported in the monitoring report dated 27 th August, 2018, needs to be forwarded to the Ministry through the Regional Office.	Action taken report has been submitted in the Ministry's regional office at Chandigarh. Acknowledgement copy is submitted.
3	Plan for Corporate Environment Responsibility (CER) to be submitted.	PP has submitted the plan for Corporate Environment Responsibility (CER).
	Action plan for ash management.	PP has submitted the Action plan for ash management.

43.5.3.4 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for expansion of grain/molasses based distillery from 60 KLPD to 150 KLPD by M/s Rana Sugars Limited (Distillery Division) in a total area of 161874 sqm at Village Laukha, District Tarn Taran (Punjab). The proposed expansion from 60 KLPD to 90 KLPD will be achieved through process modification and from 90 KLPD to 150 KLPD by setting up new 60 KLPD plant.

The project/activity is covered under category A of item 5 (g) 'Distilleries' of the Schedule to the Environment Impact Assessment Notification, 2006 and requires appraisal at Central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 30th May, 2017. Public hearing was conducted by the SPCB on 30th May, 2018.

Total fresh water requirement after the proposed expansion is estimated to be 900 cum/day, out of which 540 cum/day is proposed to be met through existing borewells and the remaining from surface water. The project proponent has got the required clearance from CGWA for ground water withdrawal of 588 cum/day from CGWA vide letter dated 6th July, 2018. However, the committee insisted for limiting the ground water requirement to 360 cum/day and the remaining fresh water demand of 540 cum/day shall be met from surface water resources.

Total generated effluent of 700 MT will be treated through ETP and treated water will be reused in the plant. Spent wash from grain based operations shall be taken through centrifuge decanter for separation of suspended solids separated as wet cake (DWGS) which is sold as cattle feed.

Total spent wash of 805 MT from molasses based operations will be treated through multi effect evaporators (MEE) followed by incineration in slop fired boiler. Other effluents will be treated in Condensate Polishing Unit. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

The expenditure towards CER for the project would be 5% of the project cost as committed by the project proponent.

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. Issues raised during the public hearing have been duly addressed by the project proponent. The Committee also found additional information submitted by the project proponent to be satisfactory.

Earlier, the Ministry had granted EC vide letter dated 26th April, 2005 to the existing molasses/grain based distillery of 60 KLPD capacity by M/s Rana Sugars Limited (Distillery Division) at Village Laukha, District Tarn Taran (Punjab). The monitoring report on compliance status of EC conditions has been forwarded by the Regional Office vide their letter dated 27th August, 2018 and action taken report submitted by the project proponent found to be satisfactory.

Consent to Operate for the existing capacity has been obtained from the State PCB vide letter dated 12/4/2018, which is valid up to 31/03/2021.

PESO has given approval vide letter dated 3rd November, 2017 for the site and layout plan of storage (Petroleum storage Class A installation) to enable the mandatory licence in Form XV as per the Petroleum Rules, 2002.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Total fresh water requirement shall not exceed 900 cum/day proposed to be met from ground water source (360 cum/day) and surface water (540 cum/day). Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.*
- *The spent wash (during Molasses based operation) shall be taken to multi effect evaporators (MEE) and the concentrated spent wash shall be incinerated in the boiler along with bagasse.*
- *Number of working/operating days for the distillery shall be 330 days as proposed.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.*
- *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 Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *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.*
- *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.*
- *All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.*
- *At least 5% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*

- *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.*
- *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*
- *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.*
- *CO₂ generated from the process shall be bottled/made solid ice and sold to authorized vendors.*
- *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.*

Agenda No.43.5.4

Expansion of Soda Ash and Captive Cogeneration Power Plant at village Mithapur & Surajkaradi, Taluka Dwarka, District Devbhumi (Gujarat) by M/s Tata Chemicals Ltd - For reconsideration of Environmental Clearance

[IA/GJ/IND2/53444/201, J-11011/140/2016-IA II (I)]

43.5.4.1 The project proponent and the accredited Consultant M/s J M Enviro Net Pvt Ltd made a detailed presentation on the salient features of the project and informed that:

- (i) The proposal is for environmental clearance to the Proposed Expansion of Soda Ash and Captive Cogeneration Power Plant at Villages Mithapur & Surajkaradi, Taluka: Dwarka, District, Devbhumi Dwarka (Gujarat) by M/s Tata Chemicals Ltd.
- (ii) All activities are listed at S.No. 4(e) {Soda Ash Industry} and 1(d) {Thermal Power Plant} of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).
- (iii) Ministry had earlier issued EC vide letter no. J-13011/20/2006.IA-II(T) dated 22nd May, 2006; amended on 30th May, 2007 for expansion of Captive Co-generation Power Plant in favour of M/s Tata Chemicals Ltd.
- (iv) Existing land area is 231 ha (2310000 m²) and no additional land will be required for proposed expansion.
- (v) Greenbelt will be developed in an area of 33 % i.e., 131 ha (1310000 m²) out of total area of the project.
- (vi) The estimated project cost is Rs.1042.07 crores including existing investment of Rs.2977.30 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.80.79 crores and the Recurring cost (operation & maintenance) will be about Rs.16.29 crores per annum. Total Employment generation will be 4551 persons as direct & 10,262 persons indirect after expansion.

(vii) There are Marine National Park and Marine Wildlife Sanctuary are located at a distance of 2.9 km and 2.4 km respectively. Shamlasar River is flowing at a distance of 9.7 km in SE direction. Bhimgaja Rainwater Lake is at a distance of 9.7 km in SE direction. Gopi Talav is at a distance of 9.5 km in ESE direction. Arabian Sea is at a distance of 2.44 km. Gulf of Kutch is at a distance of 2.19 km.

(viii) Ambient air quality monitoring was carried out at 9 locations during (Post Monsoon Season, 2016) October to December, 2016 and the baseline data indicates the ranges of concentrations PM₁₀ (36.52 to 74.21 µg/m³), PM_{2.5} (8.71 to 27.13 µg/m³), SO₂ (4.63 to 12.40 µg/m³) and NO₂ (6.55 to 15.21 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLC's after the proposed expansion project would be 1.56 µg/m³, 4.19 µg/m³ and 1.39 µg/m³ with respect to PM₁₀, SO_X and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(ix) Total Sea water requirement is 30,872 m³/day for proposed expansion which will be met from existing sea water intake facility. There is no additional fresh water requirement for proposed expansion.

(x) Effluent (Treated waste water) of 2,40,000 m³/day quantity will be treated through existing facilities.

(xi) Power requirement after expansion will be 92.60 MW including existing 62.97 MW and will be met from Captive Co-generation Power Plant (Total capacity after expansion 125 MW). Existing unit has 9 DG sets of 8318 KVA capacity which are used as standby during power failure. There is no proposed DG sets.

(xii) Existing unit has 757 TPH (Steam generation capacity) Coal/Petcoke (Fuel) fired boilers. Additionally Coal/ Petcoke fired boiler of 300 TPH capacity will be installed. ESP with a stack of height 130 m will be installed to control the particulate emissions within the statutory norms of 30 mg/Nm³ for the proposed boiler.

(xiii) Details of Solid waste/ Hazardous waste generation and its management is given in EIA Report (Chapter-10, Section 10.5).

(xiv) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 17th Feb., 2018. The main issues raised during the public hearing are related to Local Employment, Environment, Health and Education.

(xv) Certified compliance report of existing EC for Captive Co-generation Power Plant is obtained from Regional office of MoEFCC vide letter no. 5-13/2000(ENV)/138 dated 23rd May, 2018.

(xvi) No litigation is pending against the project.

(xx) The details of products are as under:

S. No.	Product Details	Unit	Existing Capacity	Proposed Capacity	Total Capacity
1.	Soda Ash	TPA	10,91,000	2,25,000	13,16,000
2.	Power	MW	85	40	125
3.	Steam	TPH	757	300	1057

43.5.4.2 The proposal was earlier considered by the Expert Appraisal Committee (Industry-2) in its 41st meeting held on 24-26 September, 2018, wherein the EAC insisted for compliance status of CRZ clearance dated 1st June, 2017 granted by the Ministry for the pipeline and diffuser system for discharge of treated effluent into sea (Gulf of Kutch). The Committee also desired for a confirmation from the concerned authority regarding location of the plant vis-a-vis the CRZ as per the approved CZMP of the area, and clarification on laying of the said pipeline without obtaining Stage-I forest clearance for diversion of 11.26 ha of mangrove forest.

43.5.4.3 Parawise replies submitted by the project proponent in response to the above observations, are as under: -

S. No.	Clarifications/inputs sought by the EAC	Reply submitted by the project proponent
1	Compliance status of CRZ clearance dated 1 st June, 2017 granted by the Ministry for the pipeline and diffuser system for discharge of treated effluent into sea (Gulf of Kutch).	The compliance status of CRZ clearance dated 1 st June, 2017 is submitted.
2	Confirmation from the concerned authority regarding location of the plant vis-a-vis the CRZ as per the approved CZMP of the area.	The project proponent submitted that the CRZ map prepared by the Anna University is showing that project site of proposed expansion is outside the boundary of CRZ area and located at a distance of 2.4 km from the boundary of Marine sanctuary.
3.	Clarification on laying of the said pipeline without obtaining Stage-I forest clearance for diversion of 11.26 ha of mangrove forest.	The proposal for forest clearance has been recommended by the Nodal officer, Gujarat and forwarded to State Government, Gujarat for further processing. Further, M/s TCL has not initiated any activity at site for laying of treated wastewater pipeline and diffuser system due to pending approvals under Forest (Conservation) Act, 1980.

43.5.4.4 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for expansion of Soda Ash (1091000 to 1316000 TPA) & Captive Cogeneration Power Plant (85 MW to 125 MW) by M/s Tata Chemicals Ltd in a total area of 231 ha at Villages Mithapur & Surajkaradi, Taluka Dwarka, District Devbhumi Dwarka (Gujarat).

The project/activities are covered under category A of item 4(e) 'Soda ash industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 2nd August, 2016. Public hearing was conducted by the SPCB on 17th February, 2018.

Total existing water requirement from Sea is 276000 cum/day. No additional fresh water will be required for proposed expansion.

Total effluent generated from different industrial operations is estimated to be 240000 cum/day. Generated effluent will be treated through Effluent Treatment Plant. Treated effluent of 240000 cum/day is being discharged to Gulf of Kutch through existing channel. Domestic waste water is treated in STP of 3 MLD capacity. The treated waste water is partially recycled within Company Township for toilet flushing and partially discharged into Sea.

The expenditure towards CER for the project would be 0.25% of the project cost as committed by the project proponent.

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. Issues raised during the public hearing have been duly addressed by the project proponent. The Committee also found additional information submitted by the project proponent to be satisfactory.

Earlier, Ministry had issued environmental clearance vide letter 22nd May, 2006 for expansion of captive Co-generation Power Plant; amended on 30th May, 2007 to the existing Captive Co-generation Power Plant in favour of M/s Tata Chemicals Ltd. The monitoring report on compliance status of above EC conditions issued by the Regional office Bhopal to the project proponent vide letter dated 23rd May, 2018 and was found to be satisfactory.

Consent to Operate for the existing capacity has been obtained from the State PCB vide letter dated 12/02/2018, which is valid up to 13/02/2023.

Proposal for obtaining Stage-I forest clearance under the Forest (Conservation) Act, 1980 for diversion of 11.26 ha of forest land (required for laying pipeline) has been submitted. The same is under consideration in the Regional Office of the MoEF&CC at Bhopal.

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

- *Stage-1 Forest clearance for diversion of 11.26 ha of forest land as mandated under the Forest (Conservation) Act, 1980 shall be submitted.*
- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Total existing water requirement from Sea is 276000 cum/day. No additional fresh water/Sea water shall be required for proposed expansion.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*

- 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 Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- 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.
- 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, 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.
- All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.
- At least 0.25% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- 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.

Agenda No.43.5.5

Expansion of bulk drug & Intermediate manufacturing unit (123.5 MTPM to 492.5 MTPM) Plot No. A-27 (Gat No. 230,231,232 & 233), MIDC Chincholi, Tahsil Mohol, District Solapur, Maharashtra by M/s Smruthi Organics Limited- For reconsideration of Environmental Clearance

[IA/MH/IND2/70915/2015, J-11011/38/2015-IA II (I)]

43.5.5.1 The project proponent and their accredited Consultant M/s Equinox Environments (I) Pvt Ltd made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for expansion through capacity utilization of existing of Bulk Drug & Intermediates manufacturing unit by M/s. Smruthi Organics Limited (SOL), Unit II located at Plot No. A - 27, Chincholi MIDC, Taluka Mohol, District Solapur (Maharashtra).

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 36th EAC meeting held during 16-17 March, 2015 and recommended Terms of Reference (ToR) for the Project. The ToR has been issued by Ministry vide letter No.J-11011/38/2015-IA II (I) dated 18th May, 2015.

(iii) All Synthetic Organic Chemicals Industry are listed at S.N. 5(f) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'B'. However, as the project is located at 1.95 Km from boundary of Great Indian Bustard Sanctuary and due to project partly established on adjacent Non-MIDC land, the project category changes from Category B to Category A and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Ministry has issued EC earlier vide letter no. J-11011/44/99- IA II (I) dated 8th April, 2002 for proposed bulk drugs & intermediates manufacturing unit and vide letter no. J - 11011/738/2007 - IA -II (I) dated 12.05.2008 for expansion of bulk drugs & intermediates manufacturing unit to M/s Smruthi Organics Limited (SOL).

(v) Existing land area is 8.11 ha (3.55 ha on MIDC area + 5.2 ha Non MIDC land). Industry has already developed the green belt area of 5033 sqm i.e. 0.50 ha (15% on MIDC Land) and proposed green belt will be 29073 sqm i.e. 2.9 ha (55 % on Non- MIDC land). Hence, the total green belt after expansion shall be 34106 sqm i.e. 38 % of the total plot area.

(vi) The existing project cost is Rs.79.29 Crores. There is no increase in capital investment as existing infrastructure and facilities shall be optimally utilized for carrying out production under expansion. Total capital cost earmarked towards environmental pollution control measures is Rs.975 Lakhs i.e. Existing is 860 Lakhs & Expansion will be 115 Lakhs and the Recurring cost (Operation and maintenance) will be about Rs.218 Lakhs per annum i.e Existing is 120 Lakhs/Annum and Expansion will be 98 Lakhs/ Annum.

(vii) Total existing Employment is 360 persons as 180 skilled & 180 unskilled. No any additional manpower would be required for proposed expansion. Industry proposes to allocate Rs 387.5 Lakh @ 5% towards Corporate Social Responsibility. As per Form- 1, that boundary of Great Indian Bustard (GIB) Sanctuary lies within 5 km distance. River Sina is flowing at a distance of 4.77 Km in south.

(viii) Ambient air quality monitoring was carried out at 06 locations during October 2015 to December 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (41.6 to 70.8 $\mu\text{g}/\text{m}^3$), PM_{2.5} (9.9 to 20.3 $\mu\text{g}/\text{m}^3$), SO₂ (10.2 to 27.5 $\mu\text{g}/\text{m}^3$), NO_x (10.9 to 28.4 $\mu\text{g}/\text{m}^3$), VOC (BDL to 94.4 $\mu\text{g}/\text{m}^3$), HCL (BDL to 15.1 $\mu\text{g}/\text{m}^3$) NH₃ (8.3 to 18.1 $\mu\text{g}/\text{m}^3$) and CO (0.04 to 0.1 $\mu\text{g}/\text{m}^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.03 $\mu\text{g}/\text{m}^3$, 0.005 $\mu\text{g}/\text{m}^3$ and 0.48 $\mu\text{g}/\text{m}^3$ with respect to PM₁₀, PM_{2.5} and SO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(ix) Total water requirement for existing and proposed expansion project will be 215 m³/day i.e. total existing water is 157 m³/day and 58 m³/day will be used in expansion. Out of total water requirement of 215 m³/day, 105 m³/day is fresh water requirement and remaining 110 m³/day

will be recycled water from treated water from ETP. The fresh water requirement will be met from MIDC water Supply Scheme.

(x) Treated effluent of 110 m³/day will be treated through following process:

The trade effluent generated from the existing and proposed expansion activities would be segregated into two streams viz. Stream I (High TDS and High COD Effluent) and Stream II (Low TDS and Low COD Effluent). The Stream I effluent generated would be to the tune of 30 M³ / Day. Same comprise of effluent from manufacturing operations viz. process effluent. This effluent will be treated in an ETP comprising of Neutralization Tank, Equalization Tank, Grease Trap, Chemical Dosing, Flocculator, Primary settling Tank (PST) followed by Triple Effect Evaporator (TEE) and Agitated Thin Film Dryer (ATFD). The condensate from TEE to the tune of 29.5 M³ / Day would be forwarded to Stream II for treatment. Further salts from TEE would be forwarded to CHWTSDF.

The Stream II effluents generated would be to the tune of 61.3 M³/Day, MEE condensate from Stream I of 29.5 M³/Day and domestic effluent 19.5 M³/Day. Stream II effluent shall be contributed by DM plant, boiler blow down, Lab, wash and cooling blow down. The same will be treated in Primary, Secondary & Tertiary treatment units consisting of Neutralization Tank, Equalization Tank, Chemical dosing, Flocculator, PST, Two Stage Aeration, 2 stage secondary settling Tank SST- I&II, Filter Feed Tank, Sand and Carbon Filters, Treated Sump followed by and R.O. Unit & Sludge dewatering equipment. The treated water from stream II would be recycled back for washing, DM Plant, boiler make-up, cooling make up. The process effluents generated from the existing and proposed activities are given adequate treatment and completely recycled thereby achieving 'Zero Liquid Discharge.'

(xi) Power requirement of existing and expansion project will be 0.9 MW and will be met from Maharashtra State Electricity Board (MSEB). Under existing unit, there are 4 Nos. D.G.Sets of 125 KVA, 250 KVA, 320 KVA, and 500 KVA capacity respectively. DG sets are used as standby during power failure. Stack height of 4m ARL is provided as per CPCB norms to the existing DG sets. Under expansion project no new D.G. set shall be installed.

(xii) Existing unit has 4 TPH and 3 TPH boilers are installed. Multi cyclone separator with a stack of height of 33 m is installed. Under expansion activity, Bag filter would be provided as APC equipment for controlling the Particulate emissions (within statutory limit of 115 mg/Nm³). No new boiler would be installed under expansion project.

At glance details of Stack for Boiler , Thermic Fluid Heater and D.G.Set under Existing Activity

S. No.	Description	Boiler (2 Nos.)			Thermic Fluid Heater		D.G. Set
		Existing	Expansion	Total	3	4	
1	Stack	1			3	4	5
2	Capacity	4 TPH,3 TPH			1 Lakh Kcal / h	1 Lakh Kcal/ h	500,325, 250, 125 KVA
3	Fuel type	Coal/Bagasse			HSD		
4	Fuel quantity	20 / 55 TPD	5/ 10 TPD	25/65 TPD	50 Lit/h		
5	Height, m, AGL	33			Common Stack; 25		4 M ARL
6	Diameter/ size, (m)	1.2			0.5		0.2

S. No.	Description	Boiler (2 Nos.)		Thermic Fluid Heater	D.G. Set
7	Control equipment preceding the stack	Existing	Multi-Cyclone Dust Collector		Silencer & Acoustic enclosure
		Expansion	Bag Filter		---
8	Source of Pollution	SPM, SO ₂ , NO _x			

Presently, boilers are operated on 50% efficiency. After expansion it would be operated on 60-65% efficiency.

(xiii) No new scrubber would be installed under expansion. Under existing unit three nos. of scrubbers are installed. Details of same are as follows-

S. No	Scrubber Attached to Reactor	No. of Scrubber attached	Process Emission from Reactors	Diameter (inch)	Height (M)	Packing Material	Scrubbing Media	Disposal of Scrubbed media
1.	Production Block-A	1	SO ₂	8	10	Ball ring	Water	Forwarded to ETP for treatment
2.	Production Block-B	1	HCL	6	12			
3.	Production Block-E	1	Acetic acid	8	16			

(xiv) Details of Solid waste/ Hazardous waste generation and its management.

Details of Solid Wastes

No.	Type	Existing	Expansion	Total	Disposal
1.	Boiler Ash (Coal/ Bagasse)	1 / 1.5 TPD	0.25 /0.3 TPD	1.25/1.8 TPD	Sold to Brick manufacturers

Details of Hazardous Wastes

S. No.	Cat.	Description	Existing Quantity	Expansion Quantity	Total Quantity	Mode of Disposal
1.	20.3	Distillation Residue	1.96 MT/M	1.65 MT /M	3.61 MT /M	Forwarded to CHWTSDF
2.	28.1	Process Residue	4.5 MT/M	Nil	4.5 MT/M	
3.	28.2	Spent Carbon	3.37MT/M	1.88 MT /M	5.25 MT /M	
4.	34.3	ETP Sludge	4.5 MT/M	1.2 MT/M	5.7 MT/M	
5.	33.3	Discarded Containers	50 nos./M	50 Nos/M	100 Nos. M	Re-processor
6.	35.1	Contaminated Filter Cloth	0.5 MT/M	1 MT/M	1.5 MT/ M	Burnt in Boiler

(xv) Public hearing for the proposed project has been conducted by the State Pollution Control Board on 13.06.2017.

(xvi) Details of Certified compliance report submitted by RO, MoEF& CC. –

Compliance observed towards EC granted to existing unit was certified by the Regional Officer MoEFCC; Nagpur during the site visit conducted on 09.04.2016 to Smruthi Organics Ltd. A report is presented by RO; MoEFCC vide letter No. F.No:5-123/2008(pyaa-) / 428 dated 20.05.2016.

(xvii) Details of existing and proposed products are as under:-

S. No	Products	Existing Quantity (MT/Month)	Proposed Quantity (MT/Month)	Total (MT/Month)
1	Pefloxacin	3	1	4
2	Ciprofloxacin HCL	9.5	5.5	15
3	Enrofloxacin	1	1	2
4	DiloxanideFuroate	5	10	15
5	Metformin HCL	60	340	400
6	Amlodipine Besilate	0.5	3.5	4
7	Amlodipine Maleate	0.5	0.5	1
8	Amlodipine Base	1	1	2
9	Phthaloyl Amlodipine	5	1	6
10	S-Amlodipine	0.5	0.5	1
11	2-Furoic Acid	0.5	1.5	2
12	Telmisartan	0.5	3.5	4
13	Norfloxacin	15	--	15
14	Carbidopa	0.5	--	0.5
15	Fenofibrate	0.5		0.5
16	2-Furoyl Chloride	0.5		0.5
17	1-Acetyl Amine -5-Nitro- 2- Propoxy Benzene (ANPB)	1	--	1
18	Amisulpride	0.5		0.5
19	Losartan Potassium	1	--	1
20	Zidovudine	5	--	5
21	Lamivudine	5	--	5
22	Lamotrigine	2	--	2
23	Acyclovir	5	--	5
24	Levodopa	0.5	--	0.5
	Total MT/M	123.5	369	492.5

Note: 1.From above list, only 10 products shall be manufactured, daily, as per market demand.
2. Recently, products Losartan Potassium, Zidovudine, Lamivudine, Lamotrigine, Acyclovir, Levodopa are no more being manufactured.

43.5.5.2 The proposal was earlier considered by the Expert Appraisal Committee (Industry-2) in its meeting held on 26-28 February, 2018, wherein the EAC taking note of the compliance report dated 16th January, 2018 from the Regional Office, Nagpur, insisted for the required information in respect of all their observations, to be necessarily submitted by the project proponent. In response, the action taken report has been submitted to the Ministry's regional office at Nagpur vide letter dated 1st October, 2018.

43.5.5.3 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of bulk drug & intermediate manufacturing unit from present capacity of 123.5 TPM to 492.5 TPM (24 nos of products) by M/s Smruthi Organics Limited in a total area of 8.81 ha (3.55 ha-MIDC land & 5.2 ha non MIDC land) at Plot No.A-27, MIDC Chincholi and Gat No. 230,231,232 & 233, Tehsil Mohol, District Solapur (Maharashtra).

The project/activity is covered under category A of item 5(f) 'Synthetic Organic chemical' of Schedule to the Environment Impact Assessment (EIA) Notification, 2006 and requires appraisal at central level by the sectoral EAC in the Ministry. The GIB Sanctuary is also located at 1.95 km from the project site.

The ToR for the project was granted on 18th May, 2015 and public hearing was conducted by SPCB on 13th June, 2017.

Total water requirement after expansion will be 215 cum/day of which fresh water demand of 105 cum/day to be met from MIDC water supply. The remaining of 110 cum/day shall be used from recycled water in the process.

Total effluent of 91.3 cum/day will be treated through ETP followed by RO and STP plant, thus ensuring Zero Liquid Discharge.

The expenditure towards CER for the project would be 1% of the project cost as committed by the project proponent.

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. Issues raised during the public hearing have been duly addressed by the project proponent. The Committee found the action taken report on non/partial complied points submitted by the project proponent to be satisfactory.

Earlier, Ministry had granted environmental clearance vide letter dated 8th April, 2002 for Bulk drug & intermediate product of capacity 45 TPM, and then on 12th May, 2008 for expansion of bulk drug manufacturing unit from 45 TPM to 123.5 TPM. The monitoring report on compliance status of existing EC conditions, was forwarded by the Ministry's Regional Office at Nagpur vide letter dated 20th May, 2016 (site visit carried out 9th April, 2016). The Regional office has examined the information provided by the project proponent in response to their observations vide monitoring report vide letter dated 20th May, 2016, and forwarded the same to the Ministry on 16th January, 2018. The said report reflects non-compliance to many of their observations. Now project proponent has informed that the action taken report has been submitted to the Ministry's Regional Office at Nagpur on 1st October, 2018. The Committee found the action taken report satisfactory.

Consent to Operate for the existing capacity has been obtained from the State PCB vide letter dated 6/12/2017, which is valid up to 30/04/2022.

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

- *The environmental clearance is subject to obtaining prior clearance from the wildlife angle including clearance from the Standing Committee of the National Board for Wildlife as applicable. Grant of environmental clearance does not necessarily implies that Wildlife*

Clearance shall be granted to the project and that their proposals for Wildlife Clearance will be considered by the respective authorities on their merits and decision taken.

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
 - (a) *Reactor shall be connected to chilled brine condenser system.*
 - (b) *Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
 - (c) *The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
 - (d) *Solvents shall be stored in a separate space specified with all safety measures.*
 - (e) *Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
 - (f) *Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
 - (g) *All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 105 cum/day to be met from MIDC water supply. Prior permission shall be obtained from the concerned regulatory authority.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *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 Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.*
- *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.*
- 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, 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.*
- All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.*
- At least 1% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.*
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- 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.*

Agenda No.43.5.6

Manufacturing of speciality and agro chemicals intermediates at Plot No. 824/18, GIDC Estate, Jhagadia (Gujarat) by M/s Prerana Agrochem Pvt Ltd - Reconsideration of Environmental Clearance

[IA/GJ/IND2/75823/2017, IA-J-11011/585/2017-IA-II(I)]

43.5.6.1 The project proponent and the accredited Consultant M/s Jyoti Om Chemical Research Center Pvt Ltd made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project for setting up Speciality and Agro Chemical Intermediates manufacturing unit at Jhagadia by M/s Prerana Agro chemicals Pvt Ltd.

(ii) The ToR has been issued by Ministry vide letter No. IA-J-11011/585/2017-IA-II(I); dated 28th January 2018.

(iii) The project/activity is covered under category A of item 5 (b) 'Pesticides industry and pesticides specific intermediates' and category B of item 5(f) Synthetic organic chemicals of the Schedule to the Environmental Impact Assessment Notification, 2006 and requires appraisal at Central level by the sectoral EAC in the Ministry.

(iv) Total land requirement will be 6858.61 m² for proposed Project. Industry will develop greenbelt in an area of 33% i.e., 2118.66 m² out of total area of the project.

(v) The estimated project cost is Rs.480 Lakhs. Total capital cost earmarked to wards environmental pollution control measures is Rs.173 Lakhs and the Recurring cost (operation and maintenance) will be about Rs.64 Lakhs per annum.

(vi) Total employment will be 69 persons as direct & indirect. Industry proposes to allocate Rs.12 Lakhs @ of 2.5% towards Corporate Social Responsibility.

(vii) There are no any national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc within 10 km distance from the project site. River Narmada is flowing at a distance of 10.65 Km in the NNW direction.

(viii) Ambient air quality monitoring was carried out at 8 locations during January 2017 to March 2017 and the baseline data indicates the ranges of concentrations as: PM10 (32 - 74 $\mu\text{g}/\text{m}^3$), PM2.5 (48 - 20 $\mu\text{g}/\text{m}^3$), SO₂ (37 - 9 $\mu\text{g}/\text{m}^3$) and NO₂ (47 - 8 $\mu\text{g}/\text{m}^3$). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.98 $\mu\text{g}/\text{m}^3$, 2.41 $\mu\text{g}/\text{m}^3$ and 1.82 $\mu\text{g}/\text{m}^3$ with respect to PM 10, Sox and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(ix) Total water requirement is 154 cum/day of which fresh water requirement of 154 cum/day will be met from GIDC water supply-Jhagadia.

(x) Effluent of 158.5 KLD (Industrial Effluent 149.5 KLD + Domestic 9.0 KLD). The Total generation quantity of industrial effluent will be treated in unit's own effluent treatment plant and discharged into M/s NCT.

(xi) Power requirement after expansion will be 225 KVA will be met from [DGVCL] Dakshin Gujarat Vij Company Limited. Unit has proposed 1 DG sets of 225 KVA capacity, as standby during power failure. Stack (height 10m) will be provided as per CPCB norms to the proposed DG sets.

(xii) Unit will install Solid Fuel Bas Boiler [3 MT], Natural gas bases Thermic fluid heater [2 Nos, 2 lakh Kcal Each]. Multi cyclone separator along with 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..

(xiii) Details of Process emissions generation and its management are given below

Sr. no.	Source of emission	Type of emission	Type of emissions i.e. Air Pollutants	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1.	Process Reactor-1	HCl, Cl ₂	< 20 mg/Nm ³	10	Water & Alkali Scrubber
2.	Process Reactor-2	SO ₂ NO _x	< 40 mg/Nm ³ ≤ 50 mg/Nm ³	10	Alkali Scrubber
3.	Process Reactor-3	H ₂ S	≤ 45 mg/Nm ³	12	Alkali Scrubber

(xiv) Details of Solid waste/ Hazardous waste generation and its management are given below:

Sr. No.	Name of Hazardous Waste	Source of generation	Category and Schedule as per HW Rules.	Quantity (TPA)	Disposal Method
1.	Used/Spent oil	Packing of products & Raw Materials	5.1	0.6 KL	Collection, Storage, reuse, Transportation, and sold to GPCB registered reprocessor/ recycler.
2.	Used Filters/Filter Cloths & Materials / Hy-Flow Material / Used Carbon etc.	From Machinery	36.2	12 MT	Collection, storage, Transportation and Disposal at BEIL-Incineration.
3.	Distillation Residue	From Process	20.3	1864 MT	Collection, Storage, Transportation and send to Co-Processing.
4.	Iron Sludge	From Process	26.1	10000 MT	Collection, Storage, Transportation, and disposal at common TSDF or Co-Processing.
5.	ETP Sludge	From ETP	35.3	200 MT	Collection, Storage, Transportation, and disposal at common TSDF.
6.	Discarded drums Discarded Bags/Liners	Packing of products & Raw Materials	33.1	75000 Nos. 360000Nos.	Collection, Storage, Reuse, Decontamination Transportation and Sold to GPCB authorized Venders.
7.	Carbon Residue	From Process	36.2	160 MT	Collection, Storage, Transportation, and for incineration at TSDF or for Co-Processing.
8.	Spent Solvent	From Solvent recovery system	20.2	Max.18,500 MT	Collection, storage and reused within the plant premises or sell to those unit's who are having permission of rule-9/who have applied under rule-9.
9.	Hydrochloric Acid [30%] [CAS-7647-01-0]	From Process	---	539 MT	Collection, Storage, transportation and sell to authorized users who are having permission of rule-9/ who have applied under rule-9.
10.	Spent Sulfuric acid [70%] [CAS-7664-93-9]	From Process	---	5330 MT	Collection, Storage, transportation and sell to authorized users

					who are having permission of rule-9/ who have applied under rule-9.
11.	Sodium Hydrosulfide [NaSH] Solution [CAS-16721-80-5]	From Process	---	2316 MT	Collection, Storage, transportation and sell to authorized users who are having permission of rule-9/ who have applied under rule-9.

(xv) Public Hearing for the proposed project is not applicable as unit is located in Industrial Estate.

(xvi) No litigation is pending against the proposal.

(xvii) The details of products and capacity as under:

S. No	Name of products	Products Group	CAS no.	Quantity [MT/Month]	End Use	Category	LD50
Agro Chemicals and its Intermediate							
1	2,3 Dichloro Phenol [2,3 DCP]	Hydrolysis of Amine	576-24-9	100	Agro chemicals Intermediates	5(b)	2376 mg/kg
2	3,4 Dichloro Phenol [3,4 DCP]		95-77-2				1685 mg/kg
3	3,5 Dichloro Phenol [3,5 DCP]		591-35-5				2400 mg/kg
4	5-Chloro-8-Hydroxy Quinoline [5 HQ]	HQ Group	130-16-5	20	Agro chemicals Intermediates	5(b)	1200 mg/kg
5	8 HydroxyQuinoline [8 HQ]		148-24-3				1,200 mg/kg
6	CloquintocetMexyl - Safener	Speciality Chemicals	99607-70-2	40	Agro Chemicals [Herbicide]	5(b)	>2000mg/kg
Synthetic Organics Chemicals							
7	2,5 Dichloro Aniline [2,5 DCA]	Group Reduction	95-82-9	300	Dyes/ Pigment Intermediates	5(f)	1600 mg/kg
8	2,3 Dichloro Aniline[2,3-DCA]		608-27-5				-----
9	3,4 Dichloro Aniline [3,4 DCA]		95-76-1				545 mg/kg
10	3,5 Dichloro Aniline[3,5-DCA]		626-43-7				129.60 mg/kg
11	P-Chloro Aniline [PCA]		106-47-8				300 mg/kg
12	M-Chloro Aniline [MCA]		108-42-9				256 mg/kg
13	2,4,5 Trichloro Aniline [2,4,5 TCA]		636-30-6				2400 mg/kg
14	4 Chloro-2-Nitro Phenol [4 CNP]	CNP & CAP Group	89-64-5	50	Dye Intermediates	5(f)	--
15	2 Chloro-4-Nitro Phenol		619-08-9				900

	[2 CNP]						mg/kg
16	4 Chloro-2-Amino Phenol [4 CAP]		95-85-2				690 mg/kg
17	2 Chloro-4-Amino Phenol [2 CAP]		3964-52-1				--
18	5-Chloro-2-Amino Phenol [5 CAP]		28443-50-7				--
19	4-Nitro-2-Amino Phenol [4-NAP]	Nitro-Amino Phenol group	99-57-0	25	Dye /Pigment Intermediates	5(f)	2.400 mg/kg
20	5-Nitro-2-Amino Phenol [5-NAP]		121-88-0				2.400 mg/kg
21	N-Propyl Bromide [N-Pr Br]	Alkyl Bromide	106-94-5	30	Dyes Intermediate	5(f)	4700 mg/kg
22	N-Hexyl Bromide [N-Hex Br]		111-25-1				1,226 mg/kg
23	IodoChloroHydroxyQuinoline [IODO]	Speciality Chemicals	130-26-7	5	Pharma Intermediate	5(f)	> 5000 mg/kg
24	2-Mercapto Benzimidazole		583-39-1	50			Dye Intermediates
25	2-Mercapto-5-Methoxybenzimidazole		37052-78-1	50	--		
26	4-Nitro-2,5 Dichloro Aniline [2,5 DCPNA]		6627-34-5	20	Dyes Intermediates		1500 mg/kg
27	2, 5 Dichloro 1,4 Phenylene Diamine [2-Cl-1,4-PDA]		20103-09-7	20	Pigment Intermediates		1.750 mg/kg
28	6-Chloro-M-Toluidine-4-Sulfonic Acid [CLT Acid]		88-53-9	25	Pigment Intermediates		13000 mg/m ³
29	4-Sulfomido Phenyl Hydrazine HCl [4 SPH-HCl]		27918-19-0	10	Dye Intermediates		3200 mg/kg
30	3-Methoxy-4-Amino-Azobenzene-3'-Sulfonic Acid [Yellow Base]	6300-07-8	10	Dyes Intermediates	--		
31	5 Chloro - 2-Benzaxolone [Chlorzoxazone]	95-25-0	25	Pharma Intermediates	763mg/kg		
	Total			780 MT/ Month			

43.5.6.2 The proposal was earlier considered by the Expert Appraisal Committee (Industry-2) in its 41st meeting held on 24-26 September, 2018, wherein the EAC insisted for additional information/inputs and clarifications in respect of the following:-

- Details of individual products in each group along with their quantum, LD₅₀ values etc. The products having LD₅₀ less than 1000 mg/kg, reported to be highly toxic, need to be deleted. The remaining products need to be reviewed for the toxicity involved and biodegradability, to revise the product list accordingly.
- Revised water balance for the unit conforming to Zero Liquid Discharge.
- Rain water harvesting plan and its utilization in the process to reduce the fresh water demand.
- Plan for Corporate Environment Responsibility (CER) to be submitted.

43.5.6.3 Parawise replies submitted by the project proponent in response to the above observations, are as under: -

S. No.	Clarifications/inputs sought by the EAC	Reply submitted by the project proponent
1	Details of individual products in each group along with their quantum, LD ₅₀ values etc. The products having LD ₅₀ less than 1000 mg/kg, reported to be highly toxic, need to be deleted. The remaining products need to be reviewed for the toxicity involved and biodegradability, to revise the product list accordingly.	Project proponent submitted that all the products included in the product list are having LD ₅₀ oral more than 100 mg/kg.
2	Revised water balance for the unit conforming to Zero Liquid Discharge.	<p>Project proponent has submitted the revised water balance. As per the revised water balance the total water requirement is estimated to be 154 cum/day, including fresh water requirement of 101 cum/day proposed to be met from GIDC water supply.</p> <p>Effluent of 149.5 cum/day quantity will be treated through ETP followed by RO and MEE, out of which 53 cum/day will be reused and remaining 95.50 cum/day will be discharge into aboveground pipeline to Jhagadia Pipeline project of M/s Narmada Clean Tech (NCT) for final disposal into marine water.</p>
3.	Rain water harvesting plan and its utilization in the process to reduce the fresh water demand.	<p>Project proponent submitted that estimated rooftop rain water harvesting potential is ~ 657 KL/year which accounts to ~1.8 KL/Day considering 756.35 mm annual average rainfall and 50% attainment. Proponent has intended to plan for rainwater harvesting system as per the study.</p> <p>Rainwater harvesting shall also be carried out in study area villages which has already been surveyed for rainwater harvesting potential. It is estimated to at least harvest 1000 KL/ year of rain water.</p>
4.	Plan for Corporate Environment Responsibility (CER) to be submitted.	The project proponent has submitted plan for Corporate Environment Responsibility (CER)

43.5.6.4 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for manufacturing agro chemicals and intermediates and speciality chemicals of total capacity 780 TPM by M/s Prerana Agrochem Pvt Ltd in a total area of 6858.61 sqm at Plot No.824/18, GIDC Estate, Jhagadia (Gujarat).

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' and item 5(f) 'Synthetic Organic Chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 28th January 2018. Public hearing is exempted as per Para 7 Stage III (3) (i) (b) of the EIA Notification, 2006.

Total water requirement is estimated to be 154 cum/day, including fresh water requirement of 101 cum/day proposed to be met from GIDC water supply.

Total generated effluent of 149.5 cum/day will be treated through ETP followed by RO and MEE, out of which 53 cum/day will be reused for different industrial operations within the premises. Remaining treated effluent of 95.50 cum/day will be finally discharged into sea through Jhagadia Pipeline project of M/s Narmada Clean Tech (NCT).

The expenditure towards CER for the project would be 2% of the project cost as committed by the project proponent.

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 found the additional information submitted by the project proponent to be satisfactory.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *The treated effluent of 95.50 cum/day shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, for discharge into sea through Jhagadia Pipeline project of M/s Narmada Clean Tech (NCT).*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
 - (a) Reactor shall be connected to chilled brine condenser system.*
 - (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*

- (c) *The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
- (d) *Solvents shall be stored in a separate space specified with all safety measures.*
- (e) *Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
- (f) *Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
- (g) *All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 154 cum/day to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
- *Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *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 Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.*
- *Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.*
- *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.*
- *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, 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.*
- *At least 2% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.*

- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *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.*

Agenda No.43.5.7

Setting up molasses based distillery of 225 KLPD along with 12 MW Co-generation power plant at Village Ajbapur, Tehsil Mohammadi, District Lakhimpur Kheri (Uttar Pradesh) by M/s DCM Shriram Limited - For Environmental Clearance

[IA/UP/IND2/84145/2018, IA-J-11011/137/2018-IA II (I)]

43.5.7.1 The project proponent and the accredited Consultant M/s J.M. EnviroNet Pvt Ltd (JMEPL) made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance for proposed 225 KLPD molasses based distillery along with 12 MW Co-generation power plant at Village Ajbapur, Tehsil Mohammadi, District Lakhimpur Kheri, Uttar Pradesh by DSCL Sugar- Ajbapur, Distillery Division (A unit of DCM Shriram Limited). The primary product from the proposed distillery will be Ethanol which will be used for blending of petrol.

(ii) The project proposal was recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter No. IA-J-11011/137/2018-IA II (I) dated 18th May, 2018.

(iii) 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).

(iv) The company has total land area of 105218 m² (26 Acres) and it is already acquired by the Company.

(v) Industry will develop greenbelt in an area of 33 % i.e. 34398.3 m² (8.5 Acres) out of total area of the proposed project.

(vi) Total cost for the proposed project is Rs.250 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.75 Crores and the Recurring cost (operation and maintenance) will be about Rs.6 Crores per annum. The distillery shall be operated throughout the year.

(vii) Total Employment will be 100 persons & 2000 persons during construction. Industry proposes to allocate Rs. 375 lakhs @ of 1.5 % towards Corporate Environment Responsibility as per latest Office Memorandum of Corporate Environment Responsibility dated 1st May, 2018.

(viii) There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc within 10 km distance from the project site. Two Reserve Forests are present in 10 km radius study area at a distance of 8.5 km. Rivers/ water bodies flowing are Chhuha Nala at a distance of 0.4 km in East, Sarada canal flowing at a distance of

1.5 km in WSW, Bhainsta Nala is flowing at a distance of 4.0 km in SW and Gomati River is flowing at 6.0 km in East direction.

(ix) Ambient air quality monitoring was carried out at 8 locations during March to May 2018 and the baseline data indicates the ranges of concentrations as: PM₁₀ (53-86.8 µg/m³), PM_{2.5} (24.2 - 44.7 µg/m³), SO₂ (5.8-16.4 µg/m³) and NO₂ (10-24.6 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.118 µg/m³, 1.02 µg/m³ and 0.79 µg/m³ with respect to PM₁₀, SO₂ and NO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(x) Total fresh water requirement will be 2205 cum/day, which will be met from Ground water. Application in this regard has been submitted to CGWA.

(xi) Concentrated Spent wash (838 cum/day) shall be burnt in Slop Fired Boiler and Condensate from MEE & lees (2923 cum/day) will be treated through CPU (capacity -3200 KLD). The plant will be based on Zero Liquid discharge system.

(xii) Power requirement for proposed project will be 6 MW which will be sourced from Co-generation power plant of 12 MW & D.G Sets (2 x 1500 KVA) (kept as back up for emergency purpose only). Stack height of 1500 KVA (12 m above roof level) will be provided as per CPCB norms to the proposed DG sets.

(xiii) Proposed project will have 90 TPH Boiler using concentrated spent wash and rice husk/bagasse/coal. Bag Filter with stack height of 84 m as prescribed by CPCB standards will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler.

(xiv) Details of Process emissions generation and its management

Source	Emissions	Management
Boiler	Particulate matter, SO ₂ , NO _x	<ul style="list-style-type: none"> Adequate stack height as per CPCB standards. Bag Filter as air pollution control equipment.
Fermentation	Carbon dioxide	Carbon di-oxide will be collected through scrubbers and sold to authorized vendors.

(xv) Details of Solid waste/ Hazardous waste generation and its management

- Concentrated spent wash will be burnt with supplementary fuel (Bagasse/Rice Husk/Coal) in the Slop fired boiler.
- Fly ash from the boiler will be used for soil amelioration due to rich potash content.
- Sludge will be used as manure after processing with fly ash for soil amendment or burnt in boiler.
- Used oil & grease generated from plant machinery/gear boxes will be sold out to the CPCB authorized recyclers.

(xvi) Public Hearing for the proposed project has been conducted by the Uttar Pradesh State Pollution Control Board on 4th October, 2018. The main issues raised during the public hearing are related to activities to be undertaken under Employment, CSR, Water and air pollution, timely payment of sugar cane.

(xvii) No Litigation is pending against the proposal.

(xviii) The details of products and capacity as under:

Units	Products	Capacity
Molasses Based Distillery (KLPD)	Ethanol/ENA/RS/ Impure Alcohol (Technical Alcohol)	225 KLPD
Co-generation Power Plant (MW)	Power	12 MW

43.5.7.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for setting up molasses based distillery of 225 KLPD and co-generation power plant of 12 MW by M/s DCM Shriram Limited in an area of 105218 sqm at Village Ajbapur, Tehsil Mohammadi, District Lakhimpur Kheri (UP).

The project/activity is covered under category A of item 5 (g) 'Distilleries' of the Schedule to the Environment Impact Assessment Notification, 2006 and requires appraisal at Central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 18th May, 2018. Public hearing was conducted by the SPCB on 4th October, 2018.

Total water requirement for the industrial operations is estimated to be 5805 cum/day, out of which fresh water requirement would be 2205 cum/day (10KL/KL of alcohol), proposed to be met from ground water. Fresh water requirement is proposed to be reduced to 1800 cum/day (8KL/KL of alcohol) with improvement in process and cooling tower efficiency. Application for ground water withdrawal has been submitted to CGWA vide letter dated 25th October, 2018.

Spent wash of 2313 KLD will be treated through multi effect evaporators (MEE) followed by incineration in slop fired boiler. Other effluents will be treated in Condensate Polishing Unit. After treatment, effluent of 4005 cum/day will be recycled and reused in the process. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

The expenditure towards CER for the project would be 1.5% of the project cost as committed by the project proponent.

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. Issues raised during the public hearing have been duly addressed by the project proponent.

PESO has given approval vide letter dated 5th November, 2018 for the site and layout plan of storage (Petroleum storage Class A installation) to enable the mandatory licence in Form XV as per the Petroleum Rules, 2002.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*

- Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- Total fresh water requirement shall not exceed 1800 cum/day proposed to be met from ground water source. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.
- The spent wash shall be taken to multi effect evaporators (MEE) and the concentrated spent wash shall be incinerated in the boiler.
- Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.
- 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 Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- 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.
- 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.
- All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.
- At least 1.5% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- 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.
- Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- 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.

- CO₂ generated from the process shall be bottled/made solid ice and sold to authorized vendors.
- 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.

43.6 Any Other

Agenda No.43.6.1

Expansion of Pesticide Technical Manufacturing Unit at 2 km Stone, Madina-Mokhra Road, Village Mokhra, Tehsil Meham, District Rohtak (Haryana) by M/s Bharat Rasayan Ltd - Amendment in EC

[IA/HR/IND2/31067/2015, IA-J-11011/253/2015-IA-II(I)]

43.6.1.1 The proposal is for amendment in the environmental clearance granted by the Ministry vide dated 31st May 2018 in favour of M/s Bharat Rasayan Ltd to the project for expansion of Pesticide (Technical) from 2940 TPA to 4260 TPA located at 2 km Stone, Madina-Mokhra Road, Village Mokhra, Tehsil Meham, District Rohtak (Haryana).

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

S. No.	Para /Point no. of EC letter issued by MOEFCC	Details as per EC Letter	To be revised / read as	Justification and Reason
1	Point no 11 (I)	Total production of Pesticides 4260 TPA shall include manufacturing of at least 25 % of bio pesticide.	As agreed in EAC meeting 10 % of the biopesticide production will be over and above the production capacity of 4260 TPA	During EAC meeting dated 12-13 Oct 2017, we (proponent) agreed on 10% bio-pesticide production not for 25% bio-pesticide production. 25 % Production included in 4260 TPA Capacity will be of no use or the proponent will be back to its original Production capacity i.e. 2940 TPA
2	Point 7 , Para 3	Existing unit has 6TPH coal fired, 3 TPH & 2 TPH LDO fired boilers and 2 LDO fired Thermic fluid heater of 2 Lac Kcal each. Additionally 2 TPH coal fired boiler or replacement of existing 6 TPH	New 8 T coal fired boiler will be installed for operation and existing 6 T coal fired boiler will be kept standby along with 2 and 3 T LDO fired boiler. Other equipment will remain same.	Request for installation of new boiler capacity of 8 T for operation, remaining boilers will be kept as standby.

		boiler by 8 TPH boiler and thermic fluid heater of 6 Lac Kcal will be installed		
3	Point 11.1 (vi)	The company shall harvest rainwater from the roof tops of the building and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve the fresh water	The unit realizes the importance of rainwater harvesting however rain water harvesting is not taken up in plant area. This is because possibility of hazardous dust (despite all possible precautions) gets mixed with rainwater and enter the ground water. The ground water will get contaminated. In view of the above factors, the site has not carried out rain water harvesting.	Amendment required as per Section 5.4.6 at page no 204 of the EIA Report. Advice from committee members in view of the concerns are highly appreciated.

Request for addition in EC letter

S. No	Points needs for Addition in EC letter	Justification	Request
1	By Product Listing	As per 29 th EAC MOM dated 12-13 Oct, The listing of by product mentioned	To add the by-product list
2	Installation of New MEE	Unit is committed for ZLD, The efficiency of the old MEE decreases and need frequent maintenance Hence we are planning for install a new MEE of same capacity and existing MEE kept as stand by.	Installation of new MEE and the existing MEE will be kept as stand by.

43.6.1.3 Earlier the EAC, in its meeting held on 27-29 August, 2018, recommended the project for manufacturing of bio-pesticides 10% in addition to the planned production capacity of 4260 TPA. Accordingly, the total production capacity of the pesticides manufacturing unit would be 4686 TPA. The Committee was also agreed for incorporating by-products details in the said environmental clearance dated 31st May 2018.

43.6.1.4 With the proposed amendment recommended by the EAC, production capacity of the unit would increase to 4686 TPA from that of 4260 TPA envisaged earlier. In view of the present

infrastructure and other utilities meant for total production capacity of 4260 TPA, it was decided by the Regulatory Authority to refer the matter back to the EAC for reconsideration.

43.6.1.5 *The EAC, after detailed deliberations, agreed for limiting the production capacity to 4260 TPA, including 10% of bio-pesticides. In case of by-products, the Committee reiterated its earlier recommendations for incorporating the details in the said environmental clearance dated 31st May 2018.*

Agenda No.43.6.2

Setting up of synthetic organic chemicals unit located at Sy.No.93, Nalgonda (Telangana) by M/s Prassanthee Laboratories Pvt Ltd - Amendment in ToR

[IA/TG/IND2/71472/2017, IA-J-11011/561/2017-IA-II(I)]

43.6.2.1 The proposal is for amendment in Terms of Reference (ToR) granted by the Ministry vide letter dated 10th February, 2018 for setting up APIs manufacturing unit at Sy. No.93, Village Rahimkhanpet, Mandal Atmakur, District Yadadri Bhuvanagiri (Telangana) to M/s Prassanthee Laboratories Private Limited.

43.6.2.2 The project proponent has requested for amendment in the TOR with the details are as under;

S. No.	Para of Standard ToR issued by MoEF&CC	Details as per the ToR	To be revised read as	Justification / reasons
1.	Page No. 1 – Line 3 of 2 nd paragraph	In this regard, under the provisions of the EIA Notification 2006 as amended, the Standard TOR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed with public consultation	Standard TOR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance with exemption from Public Consultation. There is no change in proposal for which MOEF had granted EC on 26-12-2007 after conducting public hearing on 30-4-2007.	Earlier public hearing (PH) was conducted by APPCB on 30-04-2007 and Ministry issued environmental clearance vide F.No.J-11011/523/2007-IA II (I) dated 26-12-2007. Further due to moratorium no development activity could be initiated and management plans changed and investments that were meant for this project were diverted to other activities. After obtaining CFE- Land leveling activities and compound wall construction was initiated. There is no change in location, area, production capacity, pollution load generation as per the EC granted in 2007, hence

				requesting to exempt the proposed project from Public Hearing as it was already conducted for this project on 30-4-2007 and issue the amended ToR for preparation of EIA Report.
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43.6.2.3 The EAC, after detailed deliberations, noted that the public hearing for the same project at the given location was already conducted by the SPCB on 30th April, 2007, and environmental clearance to the project was granted by the Ministry on 26th December, 2007. The project was, however, could not be implemented due to the moratorium imposed.

The Committee further noted that there being no change in project profile, products, production capacity, land requirement, etc, fresh public hearing might not be required. The Committee recommended the instant project from exemption from public hearing as proposed by the project proponent and thus amendment in the standard ToR dated 10th February, 2018 accordingly.

Agenda No.43.6.3

Setting up of Active Pharmaceutical Ingredients (APIs) manufacturing (Unit - II) at Sy. No.707 & 708 Village Tangadpally Tehsil Choutuppal District Yadadri District (Telangana) by M/s Rantus Pharma Pvt Ltd - Amendment in ToR

[IA/TG/IND2/80637/2018, IA-J-11011/204/2018-IA-II(I)]

43.6.3.1 The proposal is for amendment in the standard Terms of Reference (ToR) granted by the Ministry vide dated 22nd July, 2018 for Setting up of APIs manufacturing Unit at Sy. No. 707 & 708, Village Tangadapalli, Mandal Choutuppal, District Yadadri Bhuvanagiri (Telangana) to M/s Rantus Pharma Private Limited, Unit-II.

43.6.3.2 The project proponent has requested for amendment in the ToR with the details are as under;

S. No.	Para of Standard ToR issued by MoEF&CC	Details as per the ToR	To be revised read as	Justification / reasons
1.	Page No. 1 – Line 3 of 2 nd paragraph	In this regard, under the provisions of the EIA Notification 2006 as amended, the Standard TOR for the purpose of preparing environment impact assessment report and environment	Standard TOR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance with	Earlier public hearing (PH) was conducted by APPCB on 13 th July, 2006 and Ministry issued environmental clearance vide F.No.J-11011/315/2006-IA II (I) dated 14 th September, 2006. Further due to moratorium no development activity could be initiated. There

		management plan for obtaining prior environment clearance is prescribed with public consultation	exemption from Public Consultation. There is no change in the proposal for which MoEF had granted EC on 14-09-2006 after conducting public hearing on 13-07-2006.	is no change in location, area and production capacity, pollution load generation as per the EC granted in 2006, hence requesting to exempt the proposed project from Public Hearing as it was already conducted for this project on 13 th July, 2006 and issue the amended ToR for preparation of EIA Report.
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43.6.3.3 *The EAC, after detailed deliberations, noted that the public hearing for the same project at the given location was already conducted by the SPCB on 13th July, 2006, and environmental clearance to the project was granted by the Ministry on 14th September, 2006. The project was, however, could not be implemented due to the moratorium imposed.*

The Committee further noted that was no change in the project profile, products, production capacity, land requirement, etc from that envisaged earlier. However, in view of the public hearing conducted prior to inception of the EIA Notification, 2006, the Committee was not inclined for exemption from public hearing in case of the instant project, and thus amendment in the standard ToR dated 22nd July, 2018 was not recommended.

Agenda No.43.6.4

Setting up of synthetic organic chemicals unit located at Sy.No.94, Rahimkhanpet village, Akmakur Mandal, Yadadri Bhuvanagiri District Nalgonda (Telangana) by M/s Tejashrri Intermediates Pvt Ltd - For Amendment in ToR

[IA/TG/IND2/70378/2017, A-J-11011/515/2017-IA-II(I)]

43.6.4.1 The proposal is for amendment in the Standard Terms of Reference (ToR) granted by the Ministry vide letter No. J-11011/515/2017-IA-II(I) dated 9th December, 2017 for the project Setting up of APIs manufacturing Unit at Sy.No. 94, Village Rahimkhanpet, Mandal Atmakur, District Yadadri Bhuvanagiri (Telangana) to M/s Tejashrri Intermediates Private Limited.

43.6.4.2 The project proponent has requested for amendment in the TOR with the details are as under;

S. No.	Para of Standard ToR issued by MoEF&CC	Details as per the ToR	To be revised read as	Justification / reasons
1.	Page No. 1 - Line 3 of 2 nd paragrap	In this regard, under the provisions of the	Standard TOR for the purpose of preparing	Earlier public hearing (PH) was conducted by APPCB on 30 th April,

	h	EIA Notification 2006 as amended, the Standard TOR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed with public consultation	environment impact assessment report and environment management plan for obtaining prior environment clearance with exemption from Public Consultation. There is no change in the proposal for which MOEF had granted EC on 23-10-2007 after conducting public hearing on 30-4-2007.	2007 and Ministry issued environmental clearance vide F.No.J-11011/515/2007-IA II (I) dated 23 rd October, 2007. Further due to moratorium no development activity could be initiated. There is no change in location, area and production capacity, pollution load generation as per the EC granted in 2006, hence requesting to exempt the proposed project from Public Hearing as it was already conducted for this project on 30 th April, 2007 and issue the amended ToR for preparation of EIA Report.
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43.6.4.3 *The EAC, after detailed deliberations, noted that the public hearing for the same project at the given location was already conducted by the SPCB on 30th April, 2007, and environmental clearance to the project was granted by the Ministry on 23rd October, 2007. The project was, however, could not be implemented due to the moratorium imposed.*

The Committee further noted that there being no change in project profile, products, production capacity, land requirement, etc, fresh public hearing might not be required. The Committee recommended the instant project from exemption from public hearing as proposed by the project proponent and thus amendment in the standard ToR dated 9th December, 2017 accordingly.

List of the Expert Appraisal Committee (EAC-Industry-2) members attended the meeting

S. No.	Name and Address	Designation
1.	Dr. J. P. Gupta	Chairman
2.	Shri R K Singh	Member
3.	Dr. Ahmed Kamal	Member
4.	Dr Ajay Gairola	Member
5.	Prof. J.R. Mudakavi	Member
6.	Dr. Shashank Shekhar	Member
7.	Ms. Saloni Goel	Member
8.	Dr. Y.V. Rami Reddy	Member
9.	Shri S.K. Srivastava	Member Secretary