MINUTES OF THE 2nd EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 29-31 January 2019

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

Day One: 29th January, 2019

2.1 Opening Remarks by the Chairman

2.2 Confirmation of minutes of 1st meeting of the EAC (Industry-2) held during 19-20 December 2018 at Indira Paryavaran Bhawan, New Delhi.

The EAC, having taken note that no comments were offered on minutes of its 1st meeting held on 19-20 December, 2018 at New Delhi, confirmed the same

2.3 Environmental Clearance

Agenda No.2.3.1

Manufacturing of resins (700 TPM) at Survey No. 1023 (Old 852/1-A), Vadu-Ghumasan Road, Village Dangarwa, Taluka Kadi, Ahmedabad-Mehsana Highway, District Mehsana (Gujarat) by M/s Sunshine Laminate Pvt Ltd - Environmental Clearance.

[IA/GJ/IND2/70318/2017, IA-J-11011/533/2017-IA-II(I)]

2.3.1.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up Resin manufacturing unit of capacity 700 TPM (Phenol Formaldehyde Resin/Urea Formaldehyde Resin/Melamine Formaldehyde Resin) in the existing laminated sheet manufacturing unit of capacity 1,60,000 Nos./Month (900 TPM) by M/s Sunshine Laminate Private Limited in a total area of 13,203 sqm at Survey No. 1023 (Old 852/1-A), Village Dangarwa, Taluka Kadi, District Mehsana (Gujarat).

The details of products are as under:

S.No.	Product	Existing	Proposed	Total
Products attracting EC				
1.	Resin (Phenol Formaldehyde / Urea Formaldehyde/ Melamine Formaldehyde)	-	700 TPM	700 TPM
Total		**---**	700 TPM	700 TPM
Non-EC Products				
4.	Decorative & industrial laminated sheet	1,60,000 Nos./Month or 900 TPM	-	1,60,000 Nos./Month or 900 TPM

Industry will develop Greenbelt in an area 4357 sqm covering 33% of the total project area. The estimated project cost is Rs.11.25 crore including existing investment of Rs.9.9 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 35 Lakhs and

the recurring cost (operation and maintenance) will be about Rs.8.7 lakhs per annum. Total employment opportunity will be for 50personsdirectly & 10 persons indirectly after expansion.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Rivers etc. within 10 km from the project site.

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.

Standard ToR for the project was granted on 9th December, 2017. Public hearing was conducted by the State Pollution Control Board on 19th June, 2018. The main issues raised during the public hearing are related to employment, mitigation measures for various pollution.

Total water requirement is estimated to be 38.16 cum/day, which includes fresh water of 34 cum/day to be met from the ground water/borewell. Application in this regard has been submitted to CGWA.

Industrial effluent of 6.48 cum/day generated will be treated through Effluent Treatment Plantfollowed by single stage evaporator, and condensate water will be reused in the process. Effluent of 1.58 cum/day from scrubber will be reused in ash suppression. Sewage of 2.8 cum/day quantity will be disposed in soak pit. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Existing power requirement is 400 kVA, which is met from Uttar Gujarat Vij Company Limited, and no additional power is required for the proposed unit. Existing unit has a DG set of 350 kVA capacity, which is sufficient for the proposed activity, to be used as standby during power failure.

Existing unit has 5 TPH Coal / Lignite or Agro Waste/ sawdust/Wood fired boiler and one 15 Lac Kcal/hr Coal / Lignite or Agro Waste/ sawdust/Wood fired Thermic Fluid Heater. No Additional boiler will be installed. Multi cyclone with Bag Filter & scrubber with a stack of height 32 m is installed for controlling the particulate emissions within the statutory limit.

Ambient air quality monitoring was carried out at 8 locations during 1st October to 30thDecember 2017and the baseline data indicates the ranges of concentrations as: PM_{10} (54.87-79.60µg/m^3), $PM_{2.5}$ (19.88-40.18µg/m^3), SO_2 (10.01-18.95µg/m^3) and NO_2 (12.86-34.18µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.47 µg/m^3, 2.57 µg/m^3 and 0.92 µg/m^3 with respect to PM_{10}, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The expenditure towards CER for the project would be 2.5% 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.

Consent to e for the present industrial operations issued by the Gujarat PCB vide letter dated 15th September, 2017, is valid up to 8th August, 2024.

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *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.*
- *No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.*
- *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 with Sulphur content less than 0.5 % shall be used as fuel in the boiler, along with bio-fuel/briquettes/bagasse/agro waste.*
- *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 34 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 2.5% 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.*
- *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.2.3.2

Setting up POL Depot by M/s Hindustan Petroleum Corporation Limited (HPCL) at Village Datta, Tehsil Hansi, District Hisar (Haryana) - Environmental Clearance

[IA/HR/IND2/83334/2018, IA-J-11011/400/2018-IA-II(I)]]

2.3.2.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for Setting up POL Depot of capacity 79,229 KL (18 tanks) by M/s Hindustan Petroleum Corporation Limited (HPCL) in a total area of 165971.6 sqm located at Village Datta, Tehsil Hansi, District Hisar (Haryana).

The details of tanks and capacity are as under:

Class	Description	Gross Capacity	Product	Type
B	TK-,1,2,3	14400 KL each	HSD	CRVT
A	TK-4,5,6	9543 KL each	MS	IFRVT
A	TK- 7,8	1130 KL	Ethanol	IFRVT
UC	TK-9, 10	1800 KL	Bio Diesel	CRVT
A	TK- 11,12	500 KL	MS/HSD Slop	IFRVT
--	TK-13,14	5800 KL each	Water	OTVT
A	TS-1	70 KL each	MS	UG
B	TS-2	70 KL each	HSD	UG
UC	TS-3	180 KL each	Bio Diesel	UG
A	TS-4	180 KL each	Ethanol	UG
A	TS-5,6	20 KL each	Slop	UG
Total Class A: 32,179KL, Total Class B: 43,270 KL&Total				

unclassified product: 3,780 KL
POL Depot total capacity -79,229 KL

The project/activity is covered under category B of item 6(b) 'Isolated storage & handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules1989 amended 2000)' of schedule to the Environment Impact Assessment (EIA) Notification, 2006. However, due to absence of SEAC in the State, the project was appraised by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

Total area available for the project is 165971.6 sqm, out of which greenbelt will be developed in an area of 54770 sqm covering 33% of the total project area. The estimated project cost is Rs. 255 crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 42.5 lakhs and the recurring cost (operation and maintenance) will be about Rs. 13.0 lakhs per annum. Total employment opportunity will be for 45 persons.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Rivers etc. within 10 km from the project site.

The State Expert Appraisal Committee (Haryana) in its 166th meeting held during 12th April, 2018 has recommended Terms of References (ToR) for the Project. The ToR has been issued by SEIAA Haryana vide letter dated 15th May, 2018. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 27th September, 2018. The main issues raised during the public hearing are related to indirect /direct employment, approach road, effluent generation and its management.

Total fresh water requirement is estimated to be 5 cum/day to be met from ground water through Bore well/Barwala Water Service Subdivision. Necessary permission in this regard has been obtained from CGWA vide letter dated 20th December, 2018 and from Barwala Water Service Subdivision vide letter dated 15th November, 2018. No industrial effluent will be generated at the project site. Sewage generated from domestic sources will be sent to septic tank followed by soak pit. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement for the project will be 1000 KVA, which will be met from Haryana State Electricity Board (HSEB). Three DG sets (1x800 KVA &2 x 400 KVA) with adequate stack height as per CPCB norms, will be used as standby during power failure.

Ambient air quality monitoring was carried out at 8 locations during 19th February 2018 to 19th May 2018 and the baseline data indicates the ranges of concentrations as: PM_{10} (69.3 µg/m^3 – 47µg/m^3), $PM_{2.5}$ (34.6-23.3 µg/m^3), SO_2 (13.2-6.2µg/m^3) and NO_2 (20.1 µg/m^3 – 11.2 µg/m^3). The concentrations are within the National Ambient Air Quality Standards (NAAQS).

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 for the site and layout plan of storage facilities (Petroleum storage Class A installation) vide letter dated 31st July, 2018 to enable the mandatory licence in Form XV as per the Petroleum Rules, 2002.

2.3.2.2 *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to the 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.*
- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Total fresh water requirement shall not exceed 5 cum/day to be met from ground water through Bore well or Barwala Water Service Subdivision. Prior permission shall be obtained from the concerned regulatory authority/CGWA.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *During construction phase, air pollution and the solid waste management aspects need to be properly addressed ensuring compliance of the Construction and Demolition Waste Management Rules, 2016.*
- *The green belt of 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 and in consultation with the State Forest Department.*
- *All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.*
- *At least 1.5% 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.*
- *Regular monitoring of VOC and HC in the work zone area in the plant premises should be carried out and data to be submitted to Ministry's Regional Office, CPCB and State Pollution Control Board. Quarterly monitoring for fugitive emissions should be carried out as per the guidelines of CPCB and reports submitted to Ministry's Regional Office.*
- *Fugitive emission standard notified by Ministry/CPCB shall be followed while loading/unloading raw material/product from the tanker/truck.*
- *Necessary approvals from Chief Controller of Explosives, as applicable, shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and implemented.*
- *Emergency Response Plan should be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill should be conducted once a month.*
- *Additional safety measures should be taken by using remote operated shut off valve, Double Block &Bleed valve (DBB), impervious dyke wall and un-bonded flexible roof drain pipe, if applicable.*
- *Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.*
- *Road tankers should be equipped to the standard specified in national regulations reputable code. Vehicles should be mobilized during transfer operations and equipped to prevent untimely movement. Loading/unloading bays should be protected against impact. Fire-resistant coatings shall be provided to tanks/vessels.*
- *High and low-level alarms shall be fitted to plant storage tanks which can detect overfilling. However, proper supervision shall be done every time.*

- *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.*
- *Water sprinkling has to be undertaken on regular basis to control the polluting particles.*
- *Approach road shall be made pucca to minimize generation of suspended dust.*
- *The energy sources for lighting purposes shall preferably be LED based.*
- *Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.*
- *Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and guidelines prepared by OISD, DGMS and Govt. of India. Mock drill should be conducted once in a month. onsite and off-site Disaster Management Plan shall be implemented.*
- *Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.*
- *Additional safety measures should be taken by using remote operated shut off valve, double block & bleed valve (DBB), impervious dyke wall and un-bonded flexible roof drain pipe, if applicable.*
- *High and low-level alarms shall be fitted to plant storage tanks which can detect overfilling. However, proper supervision shall be done every time.*
- *Unit should carry out safety audit and report submitted to the Regional Office. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.*
- *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

Agenda No.2.3.3

Expansion of Sugar Plant Cane Crushing Capacity from 10,000 TCD to 15,000 TCD & Cogeneration Plant Power Generation Capacity from 45 MW TO 80 MW, Molasses Based Distillery Plant Capacity from 60 KLD TO 120 KLD, installation of 4.0 MW Cogeneration Power Plant Based on Spent wash incineration Boiler at Beerangaddi & Hunshyal P.G. Villages, Gokak Taluka, Belagavi District (Karnataka) by M/s Satish Sugars Limited- Reconsideration of Environmental Clearance.

[IA/KA/IND2/32579/2012, J-11011/341/2012-IA II (I)]

2.3.3.1 The proposal was earlier considered by the EAC (Industry -2) in its meeting held during 8-9 December, 2016. The proposal was deferred for want of information/details in respect of revised lay out plan showing green belt, effluent treatment system, water consumption, etc. The desired details could be made available only in September, 2017. Meanwhile, the proposal was delisted as per the extant norms/guidelines in this regard. On request of the project proponent, the proposal was relisted in December, 2018 for reconsideration by the Committee.

2.3.3.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for Expansion of Molasses based Distillery from 60 KLPD to 120KLPD (Products- Rectified Spirit/Ethanol/ Extra Neutral Alcohol), Sugar cane crushing capacity from 10,000 TCD to 15,000 TCD, Co-generation plant power capacity from 45 MW/Hr to 80 MW/Hr by M/s Satish Sugars Ltd in a total area of 159.30 acres

located at Villages Beerangaddi and Hunshyal PG, Taluk Gokak, District Belagavi (Karnataka). The project also involves installation power plant of 4 MW/Hr based on spent wash incineration boilers.

The project/activity is covered under category A of item 5 (g) 'Molasses based distilleries', item 5 (j) 'Sugar Industry' and item 1 (d) 'Thermal Power Plant' 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 April, 2013. Public hearing was conducted by the SPCB on 24th March, 2015. The main issues raised during the public hearing are related to proper management and development of roads and CSR activities.

Total land area available for the project is 159.30 acres, proposed project will be set up within the premises. Industry has already developed greenbelt in an area of 50 acres, and additionally greenbelt will be developed in 2 acres, totally covering 33% of the total project area. The estimated project cost is Rs.691.96 crores including existing investment of Rs 425.96 crores.

Total capital cost earmarked towards environmental pollution control measures is Rs.45 crores and the recurring cost (operation and maintenance) will be about Rs. 1.14 crores per annum. Total employment opportunity will be for 235 persons directly and 1000 persons indirectly after expansion.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors located within 10 kms radius of the project site. Ghataprabhariver is flowing at a distance of 3.1 km in S direction & Hire nalla is flowing at a distance of 0.9 km in N direction.

Ambient air quality monitoring was carried out at 6 locations during December 2013 to February 2014 and the baseline data indicates the ranges of concentrations as: PM_{10} (42.6 µg/m^3- 51.5 µg/m^3), $PM_{2.5}$ (20.7 µg/m3 – 26.8 µg/m^3), SO_2 (12.7 µg/m^3 -15.8 µg/m^3) and NO_2 (13.7 µg/m^3 – 16.7 µg/m^3) respectively. AAQ modeling study for the point source emissions indicates that the maximum incremental GLC after the proposed project would be 1.75 µg/m^3, 21.72 µg/m^3 and 5.19 µg/m^3 with respect to PM_{10}, SO_x and NO_x respectively.

Total water requirement is estimated to be 10916 cum/day during season (Sugar and Co-gen & Distillery) out of which fresh water requirement will be 1823 cum/day, and total water requirement during off-season is estimated to be 3544 cum/day (Co-gen & Distillery), out of which fresh water requirement will be 2668 cum/day, proposed to be met from Ghataprabha River. Necessary permission in this regard has been obtained from Karnataka Niravari Nigam Limited vide letter dated 27th July, 2017.

Effluent of 1344 cum/day (during season)/925 cum/day (during off-season) will be treated through ETP Plant of total capacity 1700 KLD (2 X 850 KLD) and CPU, followed by incineration in slop fired boiler. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement after expansion will be 22 MW/Hr including existing 14.5 MW/hr, proposed to be met from c-gen power plant. Existing unit has 1x40KVA, 2 x 250KVA & 1 x 650KVA capacity of DG sets, and additionally 2 X 500 KVA will be installed, to be used as standby during power failure. Stack (height 30 m AGL) will be provided as per CPCB norms to the proposed DG set.

Existing unit has 90 TPH and 60 TPH bagasse fired boiler, 130 TPH bagasse and biomass fired boiler and 14TPH coal and concentrated spent wash fired boiler. Additionally, 2 x 100 TPH bagasse/Indian & imported coal fired boiler (with ESP)and 2 x 20 TPH coal/concentrated spent wash fired boiler with cyclone dust collector will be installed. After installation of new boilers, existing boilers (90 TPH, 60 TPH and 14 TPH) will be discarded.

Earlier, the Ministry has issued EC vide letter no.J-11011/335/2006-IA.II(I) dated 5th September, 2007 for the 60 KLPD Molasses based distillery unit by M/s Satish Sugars Ltd and SEIAA vide no. 105 IND 2008 dated 17th December, 2009 for expansion for sugar factory capacity from 5000TCD to 10,000TCD and cogeneration from 20 to 45MW. The monitoring report on compliance status of EC conditions (site visit conducted on 2nd August, 2016) was forwarded by the Ministry's Regional Office at Bangalore.

PESO has given approval for the site and layout plan of storage facilities (Petroleum storage Class A installation) vide letter dated 8th November, 2018 to enable the mandatory licence in Form XV as per the Petroleum Rules, 2002.

Consent to Operate for the present industrial operations, Distillery (60 KLPD), Sugar (10,000 TCD) and CPP (45 MW) issued by SPCB vide letter dated 29th November, 2016 is valid till 28th November, 2021.

2.3.3.3 *The EAC, in the first instance observed that baseline data for the project was collected during December, 2013 to February, 2014 and as such more than three years old. As per the extant norms/guidelines of the Ministry, the same was not found acceptable to consider the proposal in its present form. The Committee also expressed concerns regarding incremental GLCs for SO_2 on much higher side (21.72 µg/m^3), which was reported to be due to use of coal in the boilers. The Committee after deliberations, insisted for fresh baseline data to be collected for one month, not to use coal as fuel, and accordingly to assess impact of the project on environmental parameters.*

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

Agenda No.2.3.4

Setting up pesticides manufacturing unit by M/s Crystal Crop Protection Pvt Ltd at Plot No.G-54, MIDC Butibori, Nagpur (Maharashtra) - Environmental Clearance.

[IA/MH/IND2/70618/2017, IA-J-11011/526/2017-IA-II(I)]

2.3.4.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up pesticide manufacturing unit of capacity 6870 TPA (41 products) by M/s Crystal Crop Protection Private Limited in an area of 40500 sqm located at Plot No. G-54, MIDC Butibori, Nagpur (Maharashtra).

Details of products are as under:

S.No	Product	Quantity (MTPA)
1	Metiram Technical	850
2	Cymoxanil Technical	105
3	Propiconazole Technical	50
4	Hexaconazole Technical	315

5	Tricyclazole Technical	420
6	Tebuconazole Technical	300
7	Azoxystrobin Technical	125
8	Pyraclostrobin Technical	5
9	Picoxystrobin Technical	105
10	Mandipropamid Technical	100
11	Epoxyconazole Technical	330
12	Bixafen Technical	30
13	Fluopyram Technical	50
14	Fluoxastrobin Technical	30
15	Fluxapyroxad Technical	50
16	Clothianidine	50
17	Flonicamide Technical	105
18	Imidacloprid Technical	400
19	Thiamethoxam Technical	480
20	Acetamiprid Technical	180
21	Pyridaben Technical	50
22	Chlorantraniliprole Technical	100
23	Spirotetramat Technical	30
24	Sulfoxaflor Technical	50
25	Dinetofuron	100
26	Flubendamide	100
27	Lambda Cyhalothrin Tech.	400
28	Cypermethrin Technical	250
29	Bifenthrin Technical	250
30	Pyrazosulfuron Technical	20
31	Tembotrione Technical	50
32	Penoxsulam Technical	30
33	Quizalofop Ethyl Technical	80
34	Oxadiazon Technical	25
35	ClodinofopPropargyl Tech.	100
36	Metamifop Technical	50
37	Saflufenacil Technical	30
38	Bentazone Technical	360
39	Clomazone Technical	450
40	Sulfentrazone Technical	135
41	Propaquizafop Technical	100
	Total	6870

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.

Standard ToR for the project was granted on 26th December, 2017. Public hearing for the project has been conducted by the State Pollution Control Board on 6th October, 2018. The main issues raised during the public hearing are related to pollution from the plant and employment to the local people.

Land area available for the project is 40500 sqm, out of which greenbelt will be developed in 13365 sqm, covering 33% of total project area. The estimated project cost is Rs.35 crore. Total capital cost earmarked towards environmental pollution control measures is Rs.246 lakhs and

the recurring cost (operation and maintenance) will be about Rs.35 lakhs per annum.Total employment opportunity will be for 100 persons directly and 25 persons indirectly.
There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km from the project site. Kanholibara river is at a distance of 3.2 km in South.

Ambient air quality monitoring was carried out at 8 locations during 1stOctober- 31stDecember, 2017 and the baseline data indicates the ranges of concentrations as: PM10 (45-96µg/m^3), $PM_{2.5}$ (21-56 µg/m^3), SO_2 (4.8-20.5 µg/m^3) and NO_2 (8.8- 29.6 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.1 µg/m3 ,0.2 µg/m3 and 0.7 µg/m^3 with respect to PM_{10}, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards.

Total water requirement is estimated to be 227.5 cum/day of which fresh water demand of 120 cum/day is to be met from MIDC water supply.

Total effluent generated from different industrial operations is estimated to be 41 cum/day, which will be taken to the effluent treatment plant (ETP) followed by MEE & RO for treatment. MEE Condensate (14.3 cum/day) and filtration through activated carbon (23.2 cum/day) will be reused. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

Power requirement will be 1000 KW and will be met from Maharashtra State Electricity Board. Two DG sets of capacity 750 kVA & 180 kVA will be used as standby during power failure. Stack of adequate height will be provided as per CPCB norms to the DG sets. Unit will have 5 MT/hr HSD/Rice Husk fired boiler. Multi cyclone separator/ bag filter with a stack height of 30m will be installed for controlling the particulate emission with in the statutory limit for the proposed boilers.

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 has been properly addressed in the EIA report.

The expenditure towards CER for the project would be 2.5% of the project cost as committed by the project proponent.

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *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 Pesticides Manufacturing Industry issued by the Ministry vide G.S.R. 446(E) dated 13th June, 2011, amended from time to time, shall be followed.*
- *No pesticides banned by the Ministry of Agriculture & Farmers Welfare, or having LD_{50}<100 mg/kg shall be produced. Also, no raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.*

- *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 120 cum/day is to be met from MIDC 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.*
- *All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.*

- *As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 2.5% 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.*
- *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

Agenda No.2.3.5

Exploratory Drilling of 2 wells in NELP Block AA-ONN-2001/2, Kolasib District, Mizoram by M/s Oil And natural Gas Corporation Ltd - Environmental Clearance

[IA/MZ/IND2/79938/2014, J-11011/305/2014-IA-II (I)]

2.3.5.1 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for exploratory drilling of 2 wells in NELP Block AA-ONN-2001/2 by M/s Oil And Natural Gas Corporation (ONGC) in District Kolasib (Mizoram).

The project/activity is covered under category A of item 1(b) 'Offshore and onshore oil and gas exploration, development & production' of schedule to the Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC).

ToR for the project was issued on 6th January 2015 with its validity of 3 years. Extension of validity of ToR for a period of one year was granted on 16th April 2018, followed by amendment in ToR on 27th April 2018 revising scope of the project restricted to exploratory drilling of two wells (HOAC & HOAD, both in District Kolasib). Public hearing was not conducted as one of the drilling site in District Mamit was dropped as per the amendment dated 27th April, 2018 in ToR.

The minimum land required at each well is 125 m x 125 m. The estimated project cost is about Rs.100 crores. Total capital cost earmarked towards environmental pollution control measures is about Rs.10 crores and the recurring cost (operation and maintenance) will beaboutRs.0.2 crores. Total employment opportunity will be for 25 persons.

There are no National Parks, Wildlife sanctuaries, Elephant corridors, ESA, rivers located within 10 km from the project site.

Total water requirement is estimated to be 25 cum/day/well, proposed to be met from local

water sources through tankers/ contractors. Effluent of 15 cum/day/well will be confined within the impermeable waste pit and allowed for solar evaporation. In case of excess effluent mobile ETP will be utilized for treatment. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement for each well site is 2250 kVA and will be met from DG sets of 750 kVA x 3 Nos. capacity, additionally one 750 kVA DG set will be used as standby. Stack (height) will be provided as per CPCB norms to the proposed DG sets.

The project proponent has confirmed the expenditure towards CER @ 2% of the total project cost.

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.

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body, sea and/or on land.*
- *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.*
- *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.*
- *Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16thNovember, 2009 for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, CH_4, HC, Non-methane HC etc.*
- *During exploration, production, storage and handling, the fugitive emission of methane, if any, shall be monitored using Infra-red camera/ appropriate technology.*
- *The project proponent also to ensure trapping/storing of the CO_2 generated, if any, during the process and handling.*
- *Approach road shall be made pucca to minimize generation of suspended dust.*
- *The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.*
- *Total fresh water requirement shall not exceed* 25 *cum/day proposed to be met from water tankers, and prior permission shall be obtained from the concerned regulatory authority.*
- *The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.*
- *Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud/drill cutting shall be discharged/disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.*

- *Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.*
- *The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.*
- *The company shall develop a contingency plan for H_2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H_2S detectors in locations of high risk of exposure along with self containing breathing apparatus.*
- *The Company shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and Regional Office.*
- *Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.*
- *Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.*
- *The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored the area in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.*
- *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.*
- *Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.*
- *Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office.*
- *Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office.*
- *An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.*
- *Company shall have own Environment Management Cell having qualified persons with proper background.*
- *Company shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.*
- *On completion of drilling, the company has to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.*

Agenda No.2.3.6

Setting up grass root petroleum storage & distribution terminal No.120 by M/s Indian Oil Corporation Ltd at Malkapur Village, Choutuppal Mandal, Bhongir Division, District Ydadri Bhongir (Telangana) - Environmental Clearance

[IA/TG/IND2/84152/2018, J-11011/137/2018-IA.II(I)]

2.3.6.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up Petroleum Storage & Distribution Terminal of capacity 164680 KL (28 tanks) by M/s Indian Oil Corporation Ltd in a total area of 3, 01,855 sqm at Malkapur Village, District Yadadri (Telangana).

Details of tanks and capacity are as under:

S.No	Class	No of tanks	Type	Capacity	Total
1	A (MS, Ethanol, Transmix)	4	IFRVT	15000 KL	60000 KL
2		1	UGHT	50 KL	50 KL
3		2	IFRVT	1300 KL	2600 KL
4		2	UGHT	50 KL	100 KL
5		2	IFRVT	600 KL	1200 KL
6	B (HSD, SKO,ATF)	4	IFRVT	17000 KL	68000 KL
7		1	UGHT	50 KL	50 KL
8		1	UGHT	20 KL	20 KL
9		1	IFRVT	4000 KL	4000 KL
10		1	UGHT	5 KL	5 KL
11		2	IFRVT	11000 KL	22000 KL
12		1	IFRVT	4000 KL	4000 KL
13		1	UGHT	5 KL	5 KL
14	Excluded (Biodiesel, Sludge)	2	CRVT	850 KL	1700 KL
15		2	UGHT	50 KL	100 KL
16		1	CRVT	850 KL	850 KL
				Total	**164680 KL**

The project/activity is covered under category B of item 6(b) 'Isolated storage & handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules1989 amended 2000)' of schedule to the Environment Impact Assessment (EIA) Notification, 2006. However, due to absence of SEAC in the State, the project was appraised by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

Total area available for the project is 3, 01,855 sqm, out of which greenbelt will be developed in an area of 1,02, 296.42sqm covering 33% of the total project area. The estimated project cost is Rs.570 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.35 croresand the recurring cost (operation and maintenance) will be about Rs.3.06 croresper annum. Total employment opportunity will be for 35 persons directly and 460 persons indirectly.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, etc. within 10 km from the project site. Malkapur Lake, Musi River is flowing at a distance 0.57, 3.71 kms in SE, N direction respectively.

The State Expert Appraisal Committee (Telangana) in its 36th meeting held during 4-5 December, 2017 recommended Terms of References (ToR) for the project. ToR has been issued vide letter dated 5th January, 2018, followed by amendment dated 26th April, 2018. Public hearing for the proposed project has been conducted by the State Pollution Control Board on 26th September, 2018. The main issues raised during the public hearing are related to employment and health facilities.

Total water requirement is estimated to be 25 cum/day, which includes fresh water requirement of 18 cum/day to be met from ground water through Bore well. Effluent of 2.6 KLD quantities of washings will be treated through Effluent Treatment Plant (OWS) and 14.4 KLD of sewage shall be sent to septic tank followed by soak pit. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement for the project will be 2500 KVA, proposed to be met from Telangana State Electrical Board. The unit will have two DG sets of 1000 KVA & 500 KVA capacity each. Stack of adequate height will be provided as per CPCB norms to the proposed DG sets.

Ambient air quality monitoring was carried out at 8 locations during January 2018 to March 2018 and the baseline data indicates the ranges of concentrations as: PM10 (40.1-66.8 µg/m3), PM2.5 (19.1-32.5 µg/m3), SO2 (9-13.1µg/m3) and NO2 (8.1-12.6µg/m3). AAQ modeling study for point source (DG Set -1000 KVA) emissions indicates that the maximum incremental GLCs after the proposed project would be 2.07 µg/m3, 0.11 µg/m3 and 1.35 µg/m3 with respect to PM10, SO2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

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

PESO has given approval for the site and layout plan of storage facilities (Petroleum storage Class A installation) vide letter dated 28th December, 2018 and the mandatory licence in Form XV as per the Petroleum Rules, 2002.

2.3.6.2 *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to the 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.*
- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*

- *Total fresh water requirement shall not exceed 18 cum/day to be met from ground water through Bore well. Prior permission shall be obtained from the concerned regulatory authority/CGWA.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *During construction phase, air pollution and the solid waste management aspects need to be properly addressed ensuring compliance of the Construction and Demolition Waste Management Rules, 2016.*
- *The green belt of 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 and 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.*
- *Regular monitoring of VOC and HC in the work zone area in the plant premises should be carried out and data to be submitted to Ministry's Regional Office, CPCB and State Pollution Control Board. Quarterly monitoring for fugitive emissions should be carried out as per the guidelines of CPCB and reports submitted to Ministry's Regional Office.*
- *Necessary approvals from Chief Controller of Explosives, as applicable, shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and implemented.*
- *Emergency Response Plan should be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill should be conducted once a month.*
- *Additional safety measures should be taken by using remote operated shut off valve, Double Block &Bleed valve (DBB), impervious dyke wall and un-bonded flexible roof drain pipe, if applicable.*
- *Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.*
- *Road tankers should be equipped to the standard specified in national regulations reputable code. Vehicles should be mobilized during transfer operations and equipped to prevent untimely movement. Loading/unloading bays should be protected against impact. Fire-resistant coatings shall be provided to tanks/vessels.*
- *High and low-level alarms shall be fitted to plant storage tanks which can detect overfilling. However, proper supervision shall be done every time.*
- *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.*
- *Water sprinkling shall be undertaken on regular basis to control the polluting particles.*
- *Approach road shall be made pucca to minimize generation of suspended dust.*
- *The energy sources for lighting purposes shall preferably be LED based.*
- *Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.*
- *Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and guidelines prepared by OISD, DGMS and Govt. of India. Mock drill should be conducted once in a month. onsite and off-site Disaster Management Plan shall be implemented.*

- *Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.*
- *High and low-level alarms shall be fitted to plant storage tanks which can detect overfilling. However, proper supervision shall be done every time.*
- *Unit should carry out safety audit and report submitted to the Regional Office. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.*
- *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

Agenda No.2.3.7

Manufacturing of Specialty Chemicals and Agro Chemical Products at Plot No.C-9, C-10 & C-11, SIPCOT Industrial complex, kudikadu village, Cuddalore Taluk, Cuddalore District (Tamil Nadu) by M/s Crimsun Organics Private Limited- Environmental Clearance

[IA/TN/IND2/75539/2018, IA-J-11011/207/2018-IA-II(I)]

2.3.7.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for manufacturing specialty chemicals of capacity 70 TPM (3 Nos) and agrochemicals of capacity 1355 TPM (54 Nos) by M/s Crimsun Organics (P) Ltd in a total area of 18051.03 sqm located at Plot No.C-9, 10 & 11, SIPCOT Industrial Complex, Village Kudikkadu, District Cuddalore (Tamil Nadu).

The details of products are as under:

S.No.	Product	Quantity (TPM)
Speciality Chemical		
1	Para chloro benzyl cyanide	20
2	Pyrazole	20
3	Metaphenoxy Benzaldehyde (MPB)	30
Fungicides		
4	Thiophanate Methyl	50
5	Hexaconazole	30
6	Propiconazole	30
7	Difenoconazole	15
8	Tricyclazole	50
9	Carbendazim	50
10	Cyproconazole	30
11	Trifloxystrobin	20
12	Cymoxanil	20
13	Pyraclostrobin	20
14	Metalaxyl	20
15	Tebuconazole	20
16	Boscalid	20
17	Picoxystrobin	20
18	Thifluzamide	20

Herbicides		
19	Pretilachlor	50
20	Glyphosate	50
21	Clodinafop-propargyl	20
22	Bispyribac-Sodium	20
23	Quizalofop	20
24	Propaquizafop	20
25	Mesotrione	20
26	Fluroxypyr	20
27	Imazamox	30
28	Pinoxaden	30
29	Ametryn	30
30	Tembotrione	20
31	Topramezone	20
32	Halosulfuron	20
33	Penoxsulam	20
34	Flucetosulfuron	20
35	Pendimethalin	30
36	Chlorimuron	20
37	Nicosulfuron	20
38	Metsulfuron	20
Insecticides		
39	Acephate	30
40	Diafenthiuron	30
41	Imidacloprid	30
42	Buprofezin	30
43	Thiamethoxam	30
44	Cypermethrin	30
45	Alpha cypermethrin	20
46	Fipronil	20
47	Acetamiprid	30
48	Propargite	30
49	Indoxacarb	20
50	Dinotefuran	20
51	Flonicamid	20
52	Etoxazold	20
53	Metaflumizone	20
54	Spiromesifen	20
55	Spirotetramat	20
56	Chlorantraniliprole	20
57	Sulfoxaflor	20
	Total	**1425**

Dichlorvos (DDVP) of capacity 50 TPM has been removed from the product list, as it is banned by the Ministry of Agriculture and Farmers Welfare with effect from 1st January, 2019.

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

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

The total land area available for the project is 18051.03 sqm, out of which green belt will be developed in an area of 6063 sqm, covering 33% of total project area. The estimated project cost is Rs.30.6 crore. Total capital cost earmarked towards environmental pollution control measures is Rs.3.76 crore and the recurring cost (operation and maintenance) will be about Rs.44.1 Lakh per annum. Total employment opportunity will be for 175 persons directly & 75 persons indirectly.

There are no National Parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km from the project site. Uppanar river is flowing at a distance of 0.45 km (E), Gadilam river at 6.23 km (NNE), Ponniyar river at 9.1 km (NNE), PerumalEri at 9.02 km (SSW) and Bay of Bengal sea is at 1.8 km (E).

Total water requirement is estimated to be 344.5 cum/day of which fresh water demand of 151.01 cum/day is to be met from SIPCOT water supply. Total effluent generated from different industrial operations is estimated to be 105.57 cum/day. High COD/high TDS effluent of 31 cum/day will be treated in MEE and POT distillation and condensate will be sent to ETP for further treatment followed by RO. Low COD/low TDS stream of 29 cum/day will be treated in ETP followed by RO, and the MEE condensate will be mixed with Low COD/low TDS stream. RO permeate of 72.31 cum/day KLD will be reused/recycled for cooling tower makeup & RO reject of 14.69 cum/day shall be sent to MEE for further treatment. Domestic effluent of 18 cum/day will be treated in STP and treated water will be used for green belt development/gardening. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

Power requirement will be 2000 KVA, proposed to be met from TANGEDCO. Two DG sets of 500 KVA is envisaged in the unit, to be used as the standby during power failure.Stack of height 9 m shall be provided as per CPCB norms to the DG sets.

Unit will have one 3 TPH furnace oil fired and one 10 TPH coal fired boiler. Multi cyclone separator/ bag filter with a stack of height 32 m will be installed for controlling the particulate emissions within the statutory limit for the proposed boilers.

Ambient air quality monitoring was carried out at 8 locations area during March to May, 2018 and the baseline data indicates the ranges of concentrations as: PM10(49.59-61.4µg/m³), PM2.5(28.5-32.1µg/m³), SO2 (8.81-10.98 µg/m³), NO2(24.7-29.9µg/m³), CO (0.24-0.65 mg/m$^{3)}$. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.46 µg/m, 2.46 µg/m3 and 3.31µg/m^3 with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standard**.**

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.

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *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 Pesticide Industry issued by the Ministry vide G.S.R. 446(E) dated 13th June, 2011 and amended from time to time, shall be followed.*
- *No pesticides banned by the Ministry of Agriculture & Farmers Welfare, or having LD_{50}<100 mg/kg shall be produced. Also, no any raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.*
- *Coal with sulphur content less than 0.5 % only shall be used. LSHS/briquette shall be used as fuel in place of furnace oil.*
- *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 151.01 cum/day is to be met from SIPCOT 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:-*
  - *(g) Metering and control of quantities of active ingredients to minimize waste.*
  - *(h) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  - *(i) Use of automated filling to minimize spillage.*
  - *(j) Use of Close Feed system into batch reactors.*
  - *(k) Venting equipment through vapour recovery system.*
  - *(l) 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 5% 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.*
- *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

Agenda No.2.3.8

Proposed additional storage facilities 3X300 MT Mounded storage vessel at Village Panishalahat, Raiganj, Dist Uttar Dinajpur (West Bengal) by M/s Bharat Petroleum Corporation Ltd - Environmental Clearance

[IA/WB/IND2/67726/2017, IA-J-11011/436/2017-IA-II(I)]

2.3.8.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of LPG storage terminal from 450 MT to 1350 MT with the addition of 3 tanks of 300 MT each (Mounded storage vessel) by M/s Bharat Petroleum Corporation Limited in a total area of 76282.66 sqm located at Village Panishalahat, District Uttar Dinajpur (West Bengal).

Details of tanks and capacity are as under:

S. No	Product	Position	Capacity	LPG bottling throughput (TPA)
1	LPG (Existing)	Bullets	450 MT (150 MT x 3)	50000

2	LPG (Proposed)	Mounded Storage Vessel	900 MT (300 MT x 3)	100,000
	Total		**1350 MT**	**1,50,000**

The project/activity is covered under category B of item 6(b) 'Isolated Storage & Handling of Hazardous Chemicals' of Schedule of Environmental Impact Assessment (EIA) Notification, 2006, and requires appraisal at the State level by the concerned SEAC/SEIAA. However, due to the applicability of general conditions (Interstate boundary of Bihar at 2 km), the proposal requires appraisal at central level by the sectoral EAC in the Ministry.

Standard ToR for the project was granted on 17th December 2017. Public hearing for the project has been conducted by the State Pollution Control Board on 17th August, 2018. The main issues raised during the public hearing are related to employment and traffic congestion.

Existing land area is 76282.66 sqm, no additional land is required for the proposed expansion. Industry has developed greenbelt in an area of 25495 sqm, covering 33% of total project area. The estimated project cost is Rs. 49.92 crore for the expansion. Total capital cost earmarked towards environmental pollution control measures is Rs. 71 lakhs and the recurring cost (operation and maintenance) will be about Rs. 12.5 lakhs per annum. Total employment opportunity will be for 14 persons directly and 43 persons indirectly.

Raiganj Wildlife Sanctuary is located within 10 km from the project site. Nagar river is flowing at a distance of 2 km in West direction. Draft notification on the ESZ for the Sanctuary has been issued by the Ministry on 12th October, 2017 with ESZ boundary of 100m, accordingly the proposed site reported to fall outside the draft ESZ boundary.

Total water requirement is estimated to be 5 cum/day proposed to be met from existing bore well.

Effluent of 1 cum/day generated from cylinder washing, after sedimentation, shall be reused. There will be no discharge of treated/untreated waste water from the unit, as the terminal is providing only storage and handling services and thus conforming to Zero Liquid Discharge.

Ambient air quality monitoring was carried out at 8 locations during 7th November 2017 to 31st January 2018 and the baseline data indicates the ranges of concentrations as: PM10 (29.4-63.8 µg/m3), PM2.5 (16.5-30.6 µg/m3), SO2 (5.0-9.3 µg/m3) and NO2 (7.4- 15.1 µg/m3). The concentrations are within the National Ambient Air Quality Standards. Due to the proposed activity is storage, no incremental GLC is expected due to the project.

Power requirement after expansion will be 380 KVA, to be met from West Bengal State power distribution corporation limited WBSEDCL. Existing unit has three DG sets of 125 KVA, 250 KVA, 380 KVA capacity, and additionally one 750 KVA DG set will be used as standby during power failure. Stack (height 9 m) will be provided as per CPCB norms to the DG sets.

Existing terminal was established before the year 1999, and hence there is no environment clearance.

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 expenditure towards CER for the project would be 2.5% of the project cost as committed by the project proponent.

Consent to Operate for the present capacity has been obtained from the State PCB, which is presently valid up to 31st August, 2018. The unit has applied for renewal of the same.

PESO has given approval for the site and layout plan of storage facilities (Petroleum storage Class A installation) vide letter dated 31st January, 2018 to enable the mandatory licence in Form XV as per the Petroleum Rules, 2002.

2.3.8.2 *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to the 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.*
- *Environmental clearance shall be 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.*
- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *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 and Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *During construction phase, air pollution and the solid waste management aspects need to be properly addressed ensuring compliance of the Construction and Demolition Waste Management Rules, 2016.*
- *Total fresh water requirement shall not exceed 5 cum/day is to be met from borewell. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.*
- *The green belt of 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 and in consultation with the State Forest Department.*
- *All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.*
- *At least 2.5% 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.*
- *Regular monitoring of VOC and HC in the work zone area in the plant premises should be carried out and data to be submitted to Ministry's Regional Office, CPCB and State Pollution Control Board. Quarterly monitoring for fugitive emissions should be carried out as per the guidelines of CPCB and reports submitted to Ministry's Regional Office.*
- *The project proponent shall conduct a traffic density survey on the approach road to be used for transportation of LPG tankers and LPG cylinders.*
- *Necessary approvals from Chief Controller of Explosives, as applicable, shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and implemented.*
- *Emergency Response Plan should be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill should be conducted once a month.*

- *Additional safety measures should be taken by using remote operated shut off valve, Double Block &Bleed valve (DBB), impervious dyke wall and un-bonded flexible roof drain pipe, if applicable.*
- *Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.*
- *The norms/guidelines of Oil Industry Safety Directorate (OISD) for installation and design of equipment and operation of the LPG Bottling Plants shall be strictly followed. Safety audit to be carried out and report submitted to the Regional Office.*
- *No packing/loading/unloading of LPG cylinders shall be made on road/outside factory premises. Vehicles loaded/unloaded with LPG cylinders shall be parked inside the plant premises only and not on road sides.*
- *Road tankers should be equipped to the standard specified in national regulations reputable code. Vehicles should be mobilized during transfer operations and equipped to prevent untimely movement. Loading/unloading bays should be protected against impact. Fire-resistant coatings shall be provided to tanks/vessels.*
- *Sections of pipeline and storage systems that can be isolated with valves or blinds should be equipped with safety valves to protect against possible damage as liquid LPG expands with increases in temperature.*
- *High and low-level alarms shall be fitted to plant storage tanks which can detect overfilling. However, proper supervision shall be done every time.*
- *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.*
- *Water sprinkling shall be undertaken on regular basis to control the polluting particles.*
- *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

2.4 Any Other

Agenda No.2.4.1

Exploratory Drilling of Additional 24 On-land wells in K.G Basin Andhra Pradesh by M/s Oil and Natural Gas Corporation Limited (ONGC) –Extension of EC

[IA/AP/IND/21736/1910, J-11011/474/2010-IA.II(I)]

2.4.1.1 The proposal is for extension of validity of environmental clearance granted by the Ministry vide letter dated 18th May, 2012) in favour of M/s Oil and Natural Gas Corporation Limited (ONGC) for their project 'Exploratory Drilling of additional 24 On-land wells in K.G. Basin' located at Rajahmundry (Andhra Pradesh).

The project proponent has informed that out of 24 wells, drilling/exploration has been completed for 18 wells. Remaining six locations require deeper drilling and thus require detailed engineering and technological feasibility studies, which would take more time.

2.4.1.2 *The Committee, after deliberations, recommended for extension of validity of the EC dated 18th May, 2012 for a period of three years i.e. till 18th May, 2022.*

Agenda No.2.4.2

Expansion of Bulk Drugs & Chemical Manufacturing Unit by M/s Sharika Life Science Private Limited at RIICO Area Sotanala, Behror, District Alwar (Rajasthan) – Corrigendum in EC

[IA/RJ/IND2/71935/2017, IA-J-11011/100/2018-IA-II (I)]

2.4.2.1 The proposal is for corrigendum in the environmental clearance granted by the Ministry vide letter dated 12th April, 2018 to the project 'Expansion of Bulk Drugs & Intermediate Chemical Manufacturing Unit with Capacity of 480 TPA' located at Plot No. SP 1-6B, RIICO Area, Sotanala, Tehsil Behror, District Alwar (Rajasthan) in favour of M/s Sharika Life Sciences Pvt Ltd.

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

S.No.	Para of EC	Details as per the EC	To be revised/ read as	Justification/ reasons
1	Para 6	Power requirement will be increased from 240 to **510** kVA proposed to be met from Jaipur Vidyut Vitaran Nigam Ltd. (JVVNL) Subsidiary of Rajasthan Electricity Board (REB)"	Power requirement will be increased from 240 to **750** kVA proposed to be met from Jaipur VidyutVitaran Nigam Ltd. (JVVNL) Subsidiary of Rajasthan Electricity Board (REB)"	Annexure submitted by mail dated 26/02/2018 is having typographical error.

2.4.2.2 *The Committee, after deliberations recommended for correction in the EC and issue a corrigendum to the EC dated* 12th April, 2018, as proposed by the proponent.

Agenda No.2.4.3

Expansion of Carbon Black Plant from 10,950 TPM to 15,750 TPM and Co-Generation Power Plant from 22 MW to 32 MW in existing premises located at Survey No. 47, SH-46, Village Mokha, Taluka Mundra, District Kutch (Gujarat) by M/s Phillips Carbon Black Ltd - Amendment in EC

[IA/GJ/IND2/58103/2016, J-11011/195/2016-IA II(I)]

2.4.3.1 The proposal is for amendment in the environmental clearance granted by the Ministry vide letter dated 15th January, 2018 to the project for 'Expansion of Carbon Black Plant and Co-generation Power Plant at Survey No. 47, SH-46, Village Mokha, Taluka Mundra, District Kutch (Gujarat) in favour of M/s Phillips Carbon Black Limited.

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

S. No.	Point of EC	Details as per the EC	To be revised	Justification/Reasons
1	**Condition No. 2 (Page 1 of 6)**	The Ministry of Environment, Forest and Climate Change has examined the proposal for grant of Environmental	The proposal for expansion should be from **10,950 TPM to 16,500 TPM** instead of 15,750 TPM.	The proposal for expansion should be from 10,950 TPM to 16,500 TPM instead of 15,750 TPM. We shall be adopting improved technology for production of Carbon Black which will enable us to get

		Clearance to the project for expansion of Carbon black plant from **10,950 TPM to 15,750 TPM** and Co-generation Power Plant from 22 MW to 32 MW by M/s Phillips Carbon black Ltd in existing premises of total area 2, 91,456 sqm located at Survey No 47, SH-46, Village Mokha, Taluka Mundra, District Kutch (Gujarat).		more yield i.e.. more production volume with the same quantity of raw material. There will be no change in effluent generation like gas, liquid etc. No other parameter as mentioned in the application will change.
2.	**Condition No. 6 (Page 2 of 6)**	Details of Process emission and its management: In new EC stake emission parameter are mentioned as SPM,SOx,NOx	Please delete SOx from process stack	Please delete SOx from process attack as this is not mentioned in our earlier EC and we never agreed to such conditions in our application.
3	**Condition No. 7 (Page 2 of 6)**	Only 5 items mentioned in details of solid waste/Hazardous waste, whereas we have total 11 items as per last CCA amendment.	List should consist of 11 items as mentioned in our Latest CCA. Revised Quantity after expansion is mentioned in Annexure-VI	Justification is given in Annexure-VI.
4.	**Condition No. 11 (h) (Page 3of 6)Point H**	Flame arresters shall be provided on tank farm, and solvent transfer through pumps.	Please delete.	In Tank flame arrestors are not required as we have adopted proper lightning protection system at a much higher level than the oil tank height. Also our raw material is an unclassified petroleum product having very high flash point.
5.	**Condition No. 11(r) (Page 4 of 6)**	Raw material storage should not exceed 3 days at any point of time.	PCBL requests to delete this point as it is irrelevant and we never agreed to such conditions in our application.	PCBL requests to delete this point as it is irrelevant and we never agreed to such conditions in our application.

2.4.3.2 *The Committee, during deliberations noted that the increase in total production capacity from 15,750 TPM to 16,500 TPM in the environmental clearance granted on 15th January, 2018*

is due to process improvement and adaption to better technologies. There shall not be any increase in raw material, water requirement and addition in pollution load.

The Committee, after detailed deliberations recommended for amendment in the said EC, with the following:

- *Total production shall be increased from 15,750 TPM to 16,500 TPM without any addition of raw material and fresh water requirement.*
- *Include the solid/hazardous waste details as proposed by the project proponent, as per the EIA/EMP report.*
- *Raw material storage shall not exceed 30 days at any point of time.*
- *Emission standards stipulated as per Ministry's Notification No. G.S.R.96(E) dated 29th January,2018, for carbon black industry.*
- *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

Agenda No.2.4.4

Residue Upgradation project at Mumbai Refinery under MREP Phase-II B.D. Patil Marg, Chembur, Mumbai Suburban (Maharashtra) by M/s Hindustan Petroleum Corporation Limited- Amendment in ToR.

[IA/MH/IND2/77265/2018, J-11011/413/2014-IA-II(I)]

2.4.4.1 The proposal is for amendment in the Terms of Reference granted by the Ministry, vide letter no. J-11011/413/2014-IA II(I) dated 5th October, 2018 to the project for Residue Upgradation Project at Mumbai Refinery under MREP Phase-II in favour of M/s Hindustan Petroleum Corporation Limited.

The project proponent has requested for amendment in the Terms of Reference exempting fresh public hearing for the project, with the details as under:

S.No.	Para of TOR	Details as per the TOR	To be revised/read as	Justification/Reasons
1	Page No. 1 - Line 3 of Last 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	Standard TOR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance with exemption from Public	HPCL hereby seeks amendment in TOR for exemption of Public Hearing for the proposed project on the following grounds: • The capacity of HPCL Mumbai Refinery will remain unchanged at 9.5 MMTPA post implementation of the proposed project. • Proposed emission shall remain within the stipulated limit set by MoEFCC for SOx, i.e 525 kg/hr (12.6 TPD) by installing new SRU with TGTU (two trains each of 180 TPD) under this project. • Post implementation of the proposed project, additional effluent generated will be treated in the existing Effluent Treatment

		obtaining prior environment clearance is prescribed with public consultation.	Consultation.	Plant. There will be zero liquid discharge for the proposed project. • Proposed facilities under the project will be set up within the existing Refinery premises that includes adjacent industrial land recently acquired by HPCL Mumbai Refinery. • HPCL Mumbai Refinery has already conducted two Public Hearings in the recent past, details are as mentioned below: ➢ Ongoing Construction of Storage Tanks at MR-II Plot: Public Hearing was held on March 17, 2015(File no. J-11011/121/2013-IA II (I) which is adjacent to the existing Refinery (Proposal No. IA/MH/IND2/30816/2013) ➢ Ongoing Expansion of Mumbai Refinery from 7.5 to 9.5 MMTPA including PRU and Revamp of CPP**:** Public Hearing was held on May 13, 2016 (File no. J-11011/413/2014-IA II (I)) (Proposal No. IA/MH/IND2/26662/2014).

2.4.4.2 *The EAC noted that the proposed project will be set up in the existing refinery complex. The proposed project is only for residue upgradation and the overall production of the refinery shall remain at 9.5 MMTPA, no increase in emission load from the stipulated standards, and there is no additional land requirement. Public hearing has been conducted for Construction of Storage Tanks at MR-II Plot on 17th March, 2015 and for Expansion of Mumbai Refinery from 7.5 to 9.5 MMTPA including PRU and Revamp of CPP on 13th May, 2016.*

The Committee, after detailed deliberations, recommended for exemption from conducting fresh public hearing, as per the provisions contained in the para 7 (ii) of the EIA Notification, 2016.

Day Two: 30th January, 2019

2.5 Environmental Clearance

Agenda No.2.5.1

Green field API and Intermediate Bulk Drug Manufacturing Unit at Village Nimbuan, Hadbast No.1, Derabassi, District SAS Nagar (Punjab) by M/s Saurav Chemicals Limited - Environmental Clearance

[IA/PB/IND2/67822/2017, IA-J-11011/438/2017-IA-II(I)]

2.5.1.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up of APIs, Bulk Drugs and its intermediates manufacturing unit of total capacity 233.7 TPM by M/s Saurav Chemicals Limited in an area of 92268 m^2 at Village Nimbuan, Hadbast No.1, Derabassi, District SAS Nagar (Punjab).

The details of the products and capacity are as under:-

S. No.	Products	Production (TPM)
1	Alpha Lipoic Acid	2.50
2	Amiodarone Hydrochloride	0.83
3	Atropine Sulphate	0.02
4	Chlorzoxazone	3.33
5	ClopiBsylate	2.50
6	Clopi Form-2	2.50
7	Clopi Form-1	2.50
8	D-Cycloserene	2.50
9	Dexketoprofen trometamol	3.33
10	Diethylcarbamazine Citrate	5.00
11	Febuxostat	2.50
12	Homatropine Hydrobromide	0.08
13	Homatropine MethylBromide	0.42
14	Ketorolac Tromethamine	0.29
15	Levofloxacin hemihydrate	3.33
16	Loxoprofen Sodium	8.33
17	Pregabalin	2.50
18	Rabeprazole Sodium	0.83
19	Rebamipide	8.33
20	Atorvastatin	2.50
21	Celecoxib	4.17
22	Clarithromycin	4.17
23	Flurbiprofen	0.83
24	Rosuvastatin	0.83
25	Strontium Ranelate	1.67
26	Ketoprofen From CEBA	3.33
27	Ketprofen from Keto Nitrile	3.33
28	Sertraline Hydrochloride	2.50
29	Tris Buffer	0.83
30	Vidagliptin	2.50
31	Acetoxy EthylBromide	41.67
32	BromoButyric Acid	2.50
33	Cholo Acid	2.50
34	Mono-P-Nitrobenzyl malonate magnesium salt	4.17
35	Para Nitro Benzyl Alcohol(PNBA)	8.33
36	HBr 48%	41.67
37	Para nitro benzyl bromide (PNBBr)	41.67
38	Para Nitrobenzyldehyde(PNBD)	0.42
39	4-Bromomethyl quinolone-2(1H)-	8.33

	one(BMQ)	
40	4-Bromomethyl -2cynobiphnyl(BMC)	4.17
	Total Production(TPM)	**233.7**

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/approval at Central level in the Ministry.

Total land area acquired for the project is 22.80 acres. Greenbelt will be developed in an area of 33% i.e. 7.5 acres out of total area of the project. The estimated project cost for the proposed project will be Rs.64 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.10.64 Crores and the recurring cost (operation and maintenance) will be about Rs.8.4 Crores per annum.

Khol Hi-Raitan Wildlife sanctuary is at a distance of 7.16 km from the project site. Ghaggar River flows at distance of 4.5 km in North Western.

ToR for the project was granted on 26th October, 2017. Public hearing was conducted by the State Pollution Control Board on 8th June, 2018. The main issues raised during the public hearing are related to implementation of the proposed Environmental Management Plan and discharge of wastewater from the proposed facility etc. It has been informed that about 95% of the persons present at the venue of public hearing were in favour of establishment plan of the company and eight persons were not in support.

Total water requirement is estimated to be 328 m3/day, which includes fresh water of 150 m^3/day proposed to be met from ground water. The Regional Director, CGWB, North Western Region, Chandigarh has recommended vide letter dated 1st January, 2018 to CGWA for issuing the NOC for ground water abstraction.

Industrial effluent of 193 cum/day will be generated, out of which high TDS effluent of 79 cum/day will be sent to MEE followed by ATFD. Low TDS effluent of 114 cum/day will be treated in the ETP followed by RO. Treated water of 178 cum/day will be recycled in the process. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Two steam boiler of 5 TPH capacity each will be installed, out of which one boiler will be standby. Multi cyclone dust collector with a stack of 30 m height will be provided to control the particulate emissions within the statutory limit of 115 mg/Nm3 for the proposed boilers.

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.

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*

- *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. Fugitive emissions shall be controlled at 99.5% with effective chillers.*
- *No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.*
- *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 150 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 and 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.*
- *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

Agenda No.2.5.2

Expansion of Pulp Plant, VSF Plant, Sulphuric Acid Plant, Carbon-Disulphide Plant and Captive Power Plant along with new Excel Fibre Plant at Village Kumarapatnam, Taluka Ranebennuru, District Kumarpatnam (Karnataka) by M/s Grasim Industries Limited - Environmental Clearance

[IA/KA/IND2/82389/2006, J-11011/371/2006-IA II (I)]

2.5.2.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of pulp plant from 74,400 to 1,48,800 TPA, VSF plant from 87,600 to 1,75,200 TPA, Captive power plant from 20 to 50 MW along with new Excel Fibre (Solvent Spun Celluolosic Fibre) Plant of capacity 36500 TPA by M/s Grasim Industries Ltd in an area of 431.36 ha at Village Kumarapatnam, Taluka Ranebennuru, District Haveri (Karnataka).

The details of the existing and proposed products and capacity are as under:-

S. No.	Name of Products /Units	Unit	Existing Capacity	Proposed Capacity	Total Capacity after Expansion
Harihar Polyfibres Division (Pulp Plant)					
1.	Pulp	TPA	74,400	74,400	1,48,800
2.	Recovery Boiler	MW	10	10	20
Grasilene Division (Fibre Plant)					

S. No.	Name of Products /Units	Unit	Existing Capacity	Proposed Capacity	Total Capacity after Expansion
1.	Viscose Staple Fibre (VSF)	TPA	87,600	87,600*	1,75,200
2.	Sulphuric Acid **	TPA	75,110	75,110	1,50,220
3.	Carbon-Disulphide **	TPA	14,365	14,365	28,730
4.	By-product (Anhydrous sodium sulphate)	TPA	69,205	69,205	1,38,410
5.	Captive Power Plant	MW	20	30	50
6.	Excel Fibre (Solvent Spun Cellulosic Fibre)	TPA	NA	36,500	36,500

**Out of the proposed capacity of VSF i.e. 87600 TPA; 7,300 TPA will be done by debottlenecking and 80,300 TPA by new installations.*
***Not listed in the schedule to EIA Notification, 2006 and subsequent amendments therein*

The project/activity is covered under category A of item 5(i) 'Pulp & paper industry', 5(d) 'Manmade fibres manufacturing' and 1(d) 'Thermal Power Plants' of schedule to the Environment Impact Assessment (EIA) Notification under category 'A' and requires appraisal/approval at Central level in the Ministry.

Existing land area is 431.36 Ha (4313600 m^2). No additional land will be required for the proposed expansion. Industry will develop greenbelt in an area of 33% i.e. 96 ha (960000 m^2) out of total area of the project. The estimated project cost is Rs. 2550 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 600 Crores and the recurring cost (operation and maintenance) will be about Rs. 6 Crores per annum.

Ranebennur Black Buck Sanctuary is at a distance of ~4.5 km in North North West. Tungabhadra River flows at a distance of ~200 m in East.

The ToR for the project was granted on 26th May, 2017. Public hearing was conducted by the State Pollution Control Board on 17th April, 2018. The main issues raised during the public hearing are related to Local Employment, Environment, Health and Education.

Total fresh water requirement is estimated to be 97,200 m3/day which will be further reduced to 90000 cum/day, proposed to be met from Tungabhadra River.

Existing unit has three Coal/Petcoke fired boilers 260 TPH capacity. To cater the proposed expansion one more Coal/Petcoke fired boiler of 300 TPH capacity and recovery boiler will be installed. ESP with adequate stack height will be provided to control the particulate emissions within the statutory limit for the proposed boiler.

The expenditure towards CER for the project would be 2.5% of the project cost as committed by the project proponent.

Earlier, the Ministry had granted EC vide letter dated 8th November, 2007 for Viscose Staple Fibre, Captive Power Plant, Sulphuric Acid Plant and Carbon Di-sulphide Plant in favour of M/s Grasim Industries Ltd (Harihar Polyfibres Division). The said EC was amended on 30th December, 2013 for using zinc or alum in Viscos Staple fibre process as retardant for regeneration of fibre in the same spin bath solution. The monitoring report on compliance status of above EC conditions issued by the Regional Office Bangalore vide letter dated 11th July,

2017, was found to be satisfactory.

Consent to Operate for the existing capacity has been obtained from the State PCB vide letter dated 12th October, 2018, which is valid up to 30th June, 2021.

2.5.2.2 *The Committee, after deliberations, desired for clarifications/information in respect of the following:-*

- *Requirement of environmental clearance for the pulp plant of capacity 74400 TPA operated by Harihar Polyfibres Division of M/s Grasim Industries Ltd, and the compliance status thereof.*
- *Products not covered under the domain of the EIA Notification, 2006, to be excluded from the proposal and the products details to be revised accordingly.*
- *Revised water balance for the reduced fresh water requirement of 90000 cum/day.*
- *Status of Wildlife Clearance in view of Ranebennur Black Buck Sanctuary at a distance of ~4.5 km.*
- *Earlier EC dated 8th November, 2007 was issued in the name of M/s Grasim Industries Ltd (Grasilene Division). Whereas, the present proposal for expansion of the same products, involves two Divisions namely, Harihar Polyfibres and Grasiline Division.*

Agenda No.2.5.3

Expansion of Onshore Oil and Gas Production from Existing 300,000 barrels of oil per day (BOPD) to 400,000 BOPD and 165 Million Standard Feet per Day (MMSCFD) to 750 MMSCFD from RJ-ON-90/1 Block, Barmer (Gujarat) by M/s Cairn India Limited - Environmental Clearance

[IA/GJ/IND2/83890/2018, J-11011/13/2018-IA-II(I)]

2.5.3.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of onshore oil and gas production from the existing 300,000 BOPD (barrels oil per day) to 400,000 BOPD and 165 MMSCFD (Million Standard Cubic Feet per day) to 750 MMSCFD by M/s Vedanta Limited (Cairn Oil & Gas Division) from RJ-ON-90/1 Block at Barmer (Rajasthan). The project involves oil augmentation to produce up to 400,000 BOPD & 250 MMSCFD associated gas from the oil field, and gas augmentation to produce up to 500 MMSCFD of natural gas (400 MMSCFD in gas processing terminal & 100 MMSCFD from gas satellite field).

The project/activity is covered under category A of item 1(b) 'Offshore and onshore oil and gas exploration, development & production' of schedule to the Environment Impact Assessment (EIA) Notification under category 'A' and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC).

Total area of the Oil & Gas Block is 3111 sq km. Out of it, the project would involve an area of 1501.7 ha covering Districts of Barmer & Jalore in the State of Rajasthan. Additional 150 ha of land in District Barmer will be used for the proposed expansion. Industry will develop greenbelt in an area of 33% i.e.211 ha out of total operational area of the project. The estimated project cost is Rs.12,000 crores including existing investment of Rs.28,000 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 1200 crores and the recurring cost (O&M) will be about Rs.120 crores per annum.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wild life Corridors etc within 10 km distance from the project site. River Luni (seasonal river) flows at a distance of ~3km in South.

ToR for the project was granted on 11th February 2018. Public hearing was conducted by the Rajasthan State Pollution Control Board on 28th September 2018 in District Barmer. The main issues raised during the public hearing are related to health issues, ground water quality, CSR budget and spent, green belt development, employment to the locals, pollution control & management, air and noise pollution, contractor payments, local contract award, solid waste disposal, site restoration, tree cutting, land acquisition and compensation, construction of local school & hospital, community RO plant and its operational, wastewater collection & treatment etc.

Total water requirement is estimated to be 93,500 m3/day proposed to be met from deep saline ground water. No fresh water will be required. The unit has already obtained permission from CGWA for withdrawal of 53500 cum/day of water. For 15000 cum/day, application has been submitted to CGWA which is reported to be under process. To meet the increased production of oil & gas, additional saline water of 25000 cum/day shall be required, for which application is yet to be submitted.

Effluent of 192,000 m^3/day maximum quantity will be treated through ETP, Nano and RO Plant. The treated water will be injected to the reservoir.

Existing unit has 7 no's x 115 TPH blend of Associated gas (AG) and Natural gas (NG) fired boiler. All the combustion equipment's will have adequate stack height, acoustic enclosures and fuel filters. All the stack emissions will be monitored periodically and fugitive emission study will also be carried out at periodic interval.

The expenditure towards CER for the project would be 0.125% 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, EC was granted by the Ministry vide letter dated 11th August 2014 (Corrigendum issued on 26th April, 2016) for augmentation of hydrocarbon Production (2 lakh BOPD to 3 lakh BOPD) in RJ-ON-90/01 Block in favor of M/s Vedanta Limited (Cairn Oil & Gas Division). The monitoring report on compliance status of above EC conditions issued by the Regional office at Lucknow to the project proponent vide letter dated 30th August, 2018 and was found to be satisfactory.

Consent to Operate for the existing capacity has been obtained from the State PCB vide letter dated 9th February, 2017 which is valid up to 30th November, 2021.

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board as required.*
- *As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body, sea and/or on land.*

- *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.*
- *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.*
- *Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16thNovember, 2009 for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, CH_4, HC, Non-methane HC etc.*
- *During exploration, production, storage and handling, the fugitive emission of methane, if any, shall be monitored using Infra-red camera/ appropriate technology.*
- *The project proponent also to ensure trapping/storing of the CO_2 generated, if any, during the process and handling.*
- *Approach road shall be made pucca to minimize generation of suspended dust.*
- *The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.*
- *Total water requirement shall not exceed 93,500 m3/day proposed to be met from ground water, and prior permission shall be obtained from the concerned regulatory authority/ CGWA.*
- *The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.*
- *Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud/drill cutting shall be discharged/disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.*
- *Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.*
- *The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.*
- *The company shall develop a contingency plan for H_2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H_2S detectors in locations of high risk of exposure along with self containing breathing apparatus.*
- *The Company shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and Regional Office.*
- *Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.*
- *Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.*
- *The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and*

drilling site shall be restored the area in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.

- *All the commitments made to the public during public hearing/consultation 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.*
- *Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.*
- *Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office.*
- *Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office.*
- *An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.*
- *Company shall have own Environment Management Cell having qualified persons with proper background.*
- *Company shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.*
- *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

Agenda No.2.5.4

Expansion of pesticides and specific intermediates and synthetic organic chemicals from 7430 TPA to 16055 TPA by M/s Deccan Fine Chemicals (India) Pvt Ltd at Plot No. 3505 to 3515, 6008 to 6010, 6301 to 6313 & 6316/B1, GIDC Industrial estate Ankleshwar, District Bharuch (Gujarat) - Environmental Clearance

[IA/GJ/IND2/84526/2008, J-11011/749/2008-IA II(I)]

2.5.4.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of pesticides, pesticide specific intermediates and synthetic organic chemicals manufacturing unit from 7430 to 16055 TPA by M/s Deccan Fine Chemicals (India) Pvt Ltd in an area of 76691 m^2 at Plot No.3501-3515, 6301-6313 & 16 M Road/ B1, and Plot No.6008-6010, GIDC Industrial Estate Ankleshwar, District Bharuch (Gujarat).

The details of the existing and proposed products and capacity are as under:-
(a) Products requiring environmental clearance:-

S. No.	Product	Quantity (T/annum)			Project activity as per Schedule-I of EIA Notification 2006 Proposed Additional
		Existing	Proposed Additional	Total	
A. Pesticides					
1.	Benfuresate	555	245	800	5(b) Pesticides

2.	Flupicolide				5(b) Pesticides
3.	Anilophos	300	----	300	5(b) Pesticides
4.	Triazophos	2800	----	2800	5(b) Pesticides
B. Herbicides					
Group – 1					
1.	Aclonifen	2350	1050	3400	5(b) Pesticides
2.	Oxadiargyl				5(b) Pesticides
Group – 2					
3.	Pyridate	----	1500	1500	5(b) Pesticides
4.	Amicarbazone				5(b) Pesticides
5.	Flucarbazone				5(b) Pesticides
6.	Diuron				5(b) Pesticides
C. Veterinary Product					
7.	Deltamethrin	70	30	100	5(b) Pesticides
8.	Flumethrin				5(b) Pesticides
9.	Permethrin				5(b) Pesticides
D. Intermediates					
Group – 1					
14.	N, 2-(1, 1-dimethyl-2-methylsulfinylethyl)-N1-(2-methyl-4- (1, 2, 2, 2-tetrafluoro-1-(trifluoromethyl) ethyl) phenyl) phthalamide (SOD)	1100	100	1200	5(b) Pesticide Intermediates
15.	Dichlorohydroxyketone-NBA (DS 36)				5(b) Pesticide Intermediates
16.	Dichlorooxime – NBE (DS 38)				5(b) Pesticide Intermediates
17.	Dimethyl Dithiophosphoric Acid (DMTA)	255	----	255	5(b) Pesticide Intermediates
18.	Para Benzoquinone (PBQ)	----	1800	1800	5(b) Pesticide Intermediates
Group – 2					
19.	4-(2-Methoxy-ethoxy)-3-oxo-butyric acid ethyl ester (Methoxy AA)	----	2000	2000	5(b) Pesticide Intermediates
20.	5-Amino-N,N'-bis(2,3-dihydroxypropyl) isophthalamide (ABA HCl)				5(b) Pesticide Intermediates
21.	2-Amino-5,8-dimethoxy-[1,2,4]triazol [1,5-C] pyrimidine (DAT)				5(b) Pesticide Intermediates
22.	Azura 5				5(b) Pesticide Intermediates
E. Fungicides					
23.	Propiconazole	----	900	900	5(b) Pesticides
24.	Tricyclazole				5(b) Pesticides
25.	Fenbuconazole				5(b) Pesticides

F. Synthetic Rubber					
26.	Vulcuren	----	1000	1000	5(f) Synthetic Rubbers
27.	Vulkalent – E				5(f) Synthetic Rubbers
Total		7430	8625	16055	

(b) Products which do not require Environmental Clearance:-

S. No.	Name of Products	Quantity (T/annum)		
		Existing	Proposed	Total
1.	Isoproturon	350	0	350
2.	Diuron	50	0	50
3.	Carbendazim	150	0	150
4.	Sevin	550	0	550
5.	Endosulfan	700	0	700
6.	Anilophos	300	0	300
7.	Triazophos	1600	0	1600
8.	Deltamethrin	55	0	55
9.	Fenoxaporp- Ethyl	50	0	50
10.	Glufosinate Ammonium	20	0	20
11.	Quintol	150	0	150
12.	Alliet	50	0	50
13.	Cypermethrin	800 kL (80 kL)*	0	800 kL (80 kL)*
14.	Ediphenphos	200 kL (100 kL)*	0	200 kL (100 kL)*
15.	Fenthion	300 kL (250 kL)*	0	300 kL (250 kL)*
16.	Propoxur	100 kL (20 kL)*	0	100 kL (20 kL)*
17.	Baytex Gr	100 kL (3 kL)*	0	100 kL (3 kL)*
18.	Imidachloropid	400 kL (85 kL)*	0	400 kL (85 kL)*
19.	Buprofezin	800 kL(46 kL)*	0	800 kL(46 kL)*
20.	Fipronil	4500	0	4500
21.	Bendicarb WP	20	0	20
22.	Betacyfluthrin SC	25	0	25
23.	Capromide SC	25	0	25
24.	Atlantis	20	0	20
25.	Deflobenzuron WP	20	0	20

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/approval at central level by the sectoral EAC in the Ministry.

Existing land area is 76691 m^2. No additional land will be required for proposed expansion. Industry has already developed/ will develop greenbelt in an area of 35.72% i.e., 27393 m^2out of total area of the project. The estimated project cost is Rs. 437.7crores. Total capital cost

earmarked towards environmental pollution control measures is Rs.19.81 crores and the recurring cost (operation & maintenance) will be about Rs.12.96 crores per annum.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wild life Corridors etc within 10 km distance from the project site.

ToR for the project was granted on 25th July 2017. Public Hearing is exempted as the project site is located inside the notified industrial area.

Total water requirement will be 1810 m^3/day of which fresh water requirement of 1650 m^3/day. Which will be further reduced to 1500 cum/day through improvement in process and cooling tower efficiency, proposed to be met from GIDC water supply department.

Effluent of 1030 cum/day will be generated after proposed expansion. The high TDS stream will be diverted to MEE & organic stripper. The MEE condensate with the other lean streams like domestic, low COD/ low TDS process stream & plant washing water i.e. about 862 cum/day will be treated in in-house ETP. Total 862 cum/day will be discharged to NCT for final treatment & ultimate disposal to deep sea. Remaining 178 cum/day effluent generated from utility streams like boiler blowdown, cooling tower blowdown, DM plant & softener plant regeneration will be treated in RO system. Permeate from RO @160 cum/day will be recycled as cooling tower makeup & 18 cum/day RO reject will be sent to MEE. From MEE, condensate will be sent to ETP for treatment.

Existing unit has two boilers of 8 TPH capacity each and Incinerator. Two more natural gas fired boilers of 25 TPH capacity each will be installed. Stack of 33 m height will be provided to the proposed boilers.

The expenditure towards CER for the project would be 0.75% 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 has granted EC vide letter dated 31st March, 2006 for expansion of Pesticide and Intermediate manufacturing unit and 8th December 2008 for proposed synthetic organic chemical products manufacturing unit in existing pesticide unit in favor of M/s Bayer Crop Science Ltd. Further the said EC was transferred in favour of M/s Deccan Fine Chemicals (India) Pvt Ltd vide letter dated 25th June, 2018. The monitoring report on compliance status of above EC conditions issued by the Regional office at Bhopal to the project proponent vide letter dated 4th June 2018 and was found to be satisfactory.

Consent to Operate for the existing capacity has been obtained from the State PCB vide letter dated 3rd November, 2018, which is valid up to 11th March, 2019.

2.5.4.2 *The EAC observed that some of the pesticides/chemicals mentioned in the list of products (existing/proposed) requiring environmental clearance, have been banned by the Ministry of Agriculture and Family Welfare Committee for their manufacture, import, formulation, transport, sell, use, etc. Even, some of the banned pesticides/chemicals, have been identified as those not requiring environmental clearance.*

The Committee, after deliberations, asked for excluding such pesticides/chemicals from the scope of the project, and to revise the proposal accordingly. The Committee also insisted for an undertaking from the project proponent to the effect that none of the pesticides/chemicals presently manufactured or the proposed, is covered under banned category. That needs to be

duly endorsed by the concerned regulatory authority and the fresh certificate of registration to be obtained.

The proposal was deferred for want of the needful.

Agenda No.2.5.5

Onshore Development and Production of Oil & Gas from wells in existing PML area of 4 sq km of Baola Field at Village Salajada, Tehsil Bavla, District Ahmedabad (Gujarat) by M/s Sun Petrochemicals Pvt. Ltd - Environmental Clearance

[IA/GJ/IND2/81450/2010, J-11011/729/2009-IA II(I)]

2.5.5.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for onshore development and production of oil & gas from wells (Existing-3, Additional-6) in existing PML area of 4 sq km of Baola Field by M/s Sun Petrochemicals Pvt Ltd at Village Salajada, Tehsil Bavla, District Ahmedabad (Gujarat).

Products and capacity will be as under:

Product	Existing	Proposed Quantity	Total Quantity
Oil	90 bopd	200 bopd	290 bopd

The project/activity is covered under category A of item 1(b) 'Offshore and onshore oil and gas exploration, development & production' 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.

Existing PML area is 4 sq km. No additional land will be required. Green belt will be developed in an area of 33% i.e.132 ha out of total area of the project. Total capital cost earmarked towards environmental pollution control measures is Rs.10 Lacs and the recurring cost (O&M) will be about Rs 8.66 Lacs per annum.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wild life Corridors etc within 10 km distance from the project site.

The standard ToR for the project was granted on 11th March, 2018. Public hearing for the project has been conducted by the SPCB on 11th July, 2018.

Total water requirement is 35 m^3/day/well proposed to be met from private supply.

Effluent of 10 cum/day will be send to CETP/solar evaporation pit. Domestic effluent will be sent to septic tank followed by soak pit.

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 granted EC vide letter dated 19th August, 2010 in favour of M/s Interlink Petroleum Ltd for drilling of appraisal wells in the existing PML of area 4 sq km of Baola field at village Salajada, Tehsil Bavla, District Ahmedabad (Gujarat). The same was transferred to M/s Sun Petrochemicals Private Ltd on 28th February, 2018. The monitoring report on compliance

status of above EC conditions issued by the Regional office at Bhopal vide letter dated 12th September, 2018, was found to be satisfactory.

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

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body, sea and/or on land.*
- *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.*
- *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.*
- *Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, CH_4, HC, Non-methane HC etc.*
- *During exploration, production, storage and handling, the fugitive emission of methane, if any, shall be monitored using Infra-red camera/ appropriate technology.*
- *The project proponent also to ensure trapping/storing of the CO_2 generated, if any, during the process and handling.*
- *Approach road shall be made pucca to minimize generation of suspended dust.*
- *The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.*
- *Total fresh water requirement shall not exceed the proposed quantum of* 25 *cum/day proposed to be met from water tankers and* during production will be sourced through tube well with *prior permission shall be obtained from the concerned regulatory authority.*
- *The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.*
- *Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud/drill cutting shall be discharged/disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.*
- *Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.*
- *The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.*

- *The company shall develop a contingency plan for H_2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H_2S detectors in locations of high risk of exposure along with self containing breathing apparatus.*
- *The Company shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and Regional Office.*
- *Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.*
- *Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.*
- *The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored the area in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.*
- *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.*
- *Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.*
- *Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office.*
- *Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office.*
- *An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.*
- *Company shall have own Environment Management Cell having qualified persons with proper background.*
- *Company shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.*
- *On completion of drilling, the wells shall be suitably plugged obtain certificate from environment safety angle from the concerned authority.*

Agenda No.2.5.6

Onshore Development and Production of Oil & Gas from wells in the existing PML area of 12.7 sq km of Modhera Field at Village Matresan, Tehsil Becharaji, District Mehsana (Gujarat) by M/s Sun Petrochemicals Pvt. Ltd- Environmental Clearance reg.

[IA/GJ/IND2/81587/2009, J-11011/730/2009-IA II (I)]

2.5.6.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for onshore development and production of oil & gas from wells (Existing-2, Additional-9) in the existing PML area of 12.7 sq

km of Modhera Field at Village Matresan, Tehsil Becharaji, District Mehsana (Gujarat) by M/s Sun Petrochemicals Pvt. Ltd.

Products and capacity will be as under:

Product	Existing	Proposed Quantity	Total Quantity
Oil	60 bopd	200 bopd	260 bopd

The project/activity is covered under category A of item 1(b) 'Offshore and onshore oil and gas exploration, development & production' of schedule to the Environment Impact Assessment (EIA) Notification under category 'A' and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC).

Existing land area is 12.7 Sq. km. No additional land will be required. Green belt will be developed in an area of 33% i.e., 419.1 Ha out of total area of the project. The estimated project cost is Rs 25.8 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 10,00,000 and the recurring cost (operation and maintenance) will be about Rs 8,66,000 per annum.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wild life Corridors etc within 10 km distance from the project site.

The standard ToR for the project was granted on 4th March, 2018. Public hearing for the project has been conducted by the Gujarat State Pollution Control Board on 19th July, 2018.

Total water requirement is 35 m3/day/well proposed to be met from private supply.

Effluent of 10 cum/day will be send to CETP/solar evaporation pit. Domestic effluent will be sent to septic tank followed by soak pit.

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 granted EC vide letter dated 24th December, 2010 in favour of M/s Interlink Petroleum Ltd for drilling of appraisal wells in the existing PML of area of Modhera Field at Village Matresan, Tehsil Becharaji, District Mehsana (Gujarat). The same was transferred to M/s Sun Petrochemicals Private Ltd on 4th December, 2017. The monitoring report on compliance status of above EC conditions issued by the Regional office at Bhopal vide letter dated 12th September, 2018, was found to be satisfactory.

2.5.6.2 The Committee was informed that the Ministry has earlier granted environmental clearance vide letter dated 22nd November, 2014 in favour of M/s ONGC Ltd for the project 'Development of 350 wells in Mehsana Assets' in 45 PMLs, covering an area of 941.796 sq km in the Districts of Mehsana, Patan, Ahmedabad and Gandhinagar (Gujarat). It was further informed that Becharaji PMLs, covered under the said environmental clearance, finds mention in the instant project also.

2.5.6.3 *The EAC, after deliberations, observed that there are all apprehensions for overlapping of PMLs covered under two different projects, to be implemented by different proponents, which*

needs to be clarified at this stage only. Accordingly, the Committee decided to defer the proposal for the present for want of the desired clarifications from the project proponent.

Agenda No.2.5.7

Proposed plant of pesticide technicals & pesticide intermediates at Plot No.43/1, GIDC Dahej, Taluka Vagra, District Bharuch (Gujarat) by M/s Tagros Chemical India Ltd - Environmental Clearance

[IA/GJ/IND2/70565/2017, IA-J-11011/521/2017-IA-II(I)]

2.5.7.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up of pesticides and pesticide specific intermediates manufacturing unit of capacity 1650 TPM by M/s Tagros Chemical India Ltd in an area of 33,160 m^2 at Plot No.43/1, GIDC Dahej, Taluka Vagra, District Bharuch (Gujarat). The project also envisages manufacturing bio-pesticides @165 TPM.

The details of the proposed products and capacity are as under:-

S. No.	Products	Total capacity (TPM)	Category as per eia notification	Cas nos.	Ld_{50}
PESTICIDES TECHNICAL & INTERMEDIATES					
1	DV Acid Chloride	250	5(b)	52314-67-7	4123 mg/kg
2	Trans CMAC	150	5(b)	52314-67-7	4123 mg/kg
3	Cypermethrin	200	5(b)	52315-07-8	>2000 mg/kg
4	Permethrin	100	5(b)	52643-53-1	4000 mg/kg
5	Alphamethrin	50	5(b)	67375-30-8	> 2000 mg/kg
6	Pyriproxypane	100	5(b)	95737-68-1	> 5000 mg/kg
7	Tefluthrin	50	5(b)	79538-32-2	> 5000 mg/kg
8	Propoxer	100	5(b)	114-26-1	2400 to 5000 mg/kg
9	Imidacloprid	100	5(b)	138261-41-3	> 5000 mg/kg
10	Acetamiprid	100	5(b)	135410-20-7	> 2000 mg/kg
11	Meta Phenoxy Benzaldehyde	250	5(b)	39515-51-0	1222 mg/kg
12	Meta Phenoxybenzyl Alcohol	100	5(b)	13826-35-2	2040 mg/kg
13	Clodinafop Propargyl	50	5(b)	105512-06-9	2000 mg/kg
14	Deltamethrin Tech	50	5(b)	52918-63-5	2940 mg/kg
15	Bio Pesticides	165	5(b)	-	-

TOTAL		**1815**			
INORGANIC PRODUCTS (NOT COVERED UNDER EIA NOTIFICATION, 2006)					
16	Sodium Sulfite Powder	632.19	-	7757-83-7	820 mg/kg
17	Sodium Fluoride	6.25	-	7681-49-4	52 mg/kg
18	KCl Powder	138	-	7447-40-7	3020 mg/kg
19	Ammonium chloride	137.5	-	12125-02-9	1300 mg/kg
20	SS CMA	24.5	-	59042-49-8	-
21	Chloro Bromo Acid	5.5	-	21739-92-4	-
22	Poly Aluminium Chloride (powder)	392	-	1327-41-9	2000 mg/kg
	TOTAL	**1335.94**			
23	Formulation	5475	-	-	-
TOTAL		**5475**			
BY-PRODUCTS					
1	Cupric Chloride	2.63	-	7447-39-4	-
2	HCl	237.52	-	7647-01-0	238-277 mg/kg
3	$AlCl_3$ Sol^n /PAC Sol^n	813.75	-	7446-70-0	1990 mg/kg
TOTAL		**1053.9**			

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/approval at central level by the sectoral EAC in the Ministry.

Total land area is 33,160 m^2. Green belt will be developed in an area of 33.32% i.e.11,050 m^2out of total area of the project. The estimated project cost is Rs.355 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.20 Crores and the recurring cost (operation and maintenance) will be about Rs.7.3 Crores per annum.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wild life Corridors etc within 10 km distance from the project site.

The Standard Terms of References (ToR) for the project was granted on 17th December, 2017. Public Hearing is exempted as the project site is located inside the notified industrial area.

Total water requirement will be 877.86 m^3/day of which fresh water requirement of 648.36 m^3/day will be met from GIDC water supply department.

Effluent of 457 m^3/day will be generated, out of which High COD effluent will be treated in MEE and Low COD effluent will be treated in ETP followed by RO. Part of treated water after ETP treatment will be sent to RO plant (i.e. 282 m3/day), from which RO permeate (i.e. 229.5 m3/day) will be recycled back to Cooling Tower and RO reject (i.e. 52.5 m3/day) will be sent to MEE and other part of treated effluent i.e. 175 m3/day will be sent FETP (i.e. NCTL/BEAIL) for final disposal to deep sea via pipeline.

Three Coal/Bio Mass (Briquettes) fired boiler of 10 TPH capacity each & one Thermopack of 5 Lakh Kcal/Hr capacity will be installed. ESP with a stack height of 30 m will be installed to control the particulate emissions (within statutory limit of 150 mg/Nm3) respectively.

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.

2.5.7.2 *The Expert Appraisal Committee, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -*

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *The treated effluent of 175 cum/day shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, for discharge into deep sea through NCTL/BEAIL.*
- *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 Pesticide Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13th June,2011 and amended from time to time shall be followed.*
- *No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having LD_{50}<100 mg/kg shall be produced. Also, no raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.*
- *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 648.36 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.*

- *Risk assessment analysis using 3D modeling shall be carried out and submit report within six month.*
- *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 1.5% 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.*
- *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.*
- *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

Agenda No.2.5.8

Expansion of Agrochemical & Intermediates Manufacturing Plant at Plot No.K2 to K11 & D2 to D4, Phase-I, UPSIDC Industrial area, Village Mahfona, Tehsil Sandila, District-Hardoi (UP) by M/s India Pesticides Ltd - Reconsideration of Environmental Clearance

[IA/UP/IND2/58820/2016, J-11011/331/2016-IA II (I)]

2.5.8.1 The proposal was earlier considered by the EAC in its meeting held on 24-26 September, 2018, wherein the EAC, asked for information/additional details in respect of the following:

- Comprehensive plan for achieving ZLD and also the solid waste management. Water balance to be revised accordingly.
- 3D modelling for risk assessment to be carried out to arrive at adequate mitigation measures.
- Fly ash management plan
- Consent to operate for the existing operations.
- Detail of effluents generation, treatment and management/disposal.

2.5.8.2 In response to the observations of EAC, parawise replies submitted by the project proponent, are as under:-

S. No.	ADS	Reply
1	Comprehensive plan for achieving ZLD and also the solid waste management. Water balance to be revised accordingly	Revised water balance with ZLD Condition is submitted.
2	3D Modelling for risk assessment to be accrued out to arrive at adequate mitigation measures	Risk assessment study using 3-D modelling report has been submitted
3	Fly ash management Plan	Fly ash will be sent to the brick manufacturers. Contract copy submitted.
4	Consent to operate for the existing operations.	CTO of project is granted on 24.04.2017 vide letter no. H00609/C5/WP-553(15)/17/Unnao & H00610/C5/AP/615(15)/17/Unnao issued by Uttar Pollution Control Board.
5	Details of effluent generation, treatment and management/disposal	Effluent generation, treatment and management/disposal has been submitted

2.5.8.3 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of agro-chemicals and intermediates manufacturing unit from the present capacity of 3650 TPA to 11280 TPA by M/s India Pesticides Limited in an area of 74200 sqm at plot No. K2 to K11 & D2 to D4, Phase-I, UPSIDC Industrial area, Village Mahsona, Tahsil Sandila, District Hardoi (UP).

The details of the proposed products are as under:-

Products Proposed to be Added							
S. No	**Tag No**	**Product**	**Capacity (TPM)**	**S. No.**	**Tag No**	**Product**	**Capacity (TPM)**
1	F-18	Carboxin	100	16	H-15	Metolachlor	30
2	F-19	Diafenthiuron	10	17	H-16	Diuron	30
3	F-20	Propineb	50	18	I-19	Acequinocyl Tech	25

4	F-21	Paclobutrazole	10	19	I-20	Pyriproxyfen	10
5	F-22	Zineb	50	20	I-21	Novaluran	25
6	F-23	Etridiazole	25	21	I-22	Propargite	100
7	F-24	Tricyclazole	25	22	IN-3	PTBSA(N-Phenyl-N-(Trichloromethyl)-Thio-benzensulfonamide	30
8	F-25	Chlorothalonil	100	23	IN-4	Caprolactam Disulfide	15
9	F-26	Trichlopyr	20	24	IN-5	Propargile Alcohol	100
10	F-27	Difenoconazole	25	25	IN-6	Trichloro Methoxy Nitrobenzene	15
11	F-28	Ipconazole	50	26	FL-1	Solid Formulation - WDG, WP	500
12	F-29	Dodine	30	27	FL-2	Liquid Formulation -EC,SL	1000
13	H-12	Imazethapyr	10	28	BP-1	Sodium Sulphate	360
14	H-13	Metribuzin	25	29	BP-2	Ammonium Sulphate	60
15	H-14	Bispyribac Sodium	30	30	BP-3	Sodium Sulphite	114
				31	BP-4	HCl Spent acid	108

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

Existing land area is 24281 m^2. For the proposed expansion, additional 49,919 m^2 of land will be required. Green belt will be developed in 33% area out of total area of the project. The estimated project cost is Rs.25 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.6.07 crores and the recurring cost (operation and maintenance) will be about Rs 253 lakh per annum.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wild life Corridors etc within 10 km from the project site. Bahca Nadi flows at a distance of 6.73 Km in North East.

ToR for the project was granted on 14th February, 2017. Public hearing was conducted by the State Pollution Control Board on 30th December 2017. The main issues raised during the public hearing are related to employment, effect of the plant on the agriculture crop and the pollution load that will arise due to the Plant.

Total water requirement is estimated to be 1520 KLD which includes fresh water requirement of 1009 m^3 per day (existing-135 cum per day, additional-874 cum per day). To meet the additional water requirement of 874 cum per day, it has been informed by the Central Ground Water Board, that the proposal is under advance stage of processing and shall be recommended to CGWA shortly.

Existing unit has 6 TPH HSD/Rice husk fired boiler. Additionally one boiler of 8 TPH will be installed. Multi cyclone separator/bag filter with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115mg/Nm3 for the proposed boilers.

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 granted EC vide letter dated 22nd March, 2013 for agrochemical and intermediate manufacturing plant (3650 TPA) in favour of M/s India Pesticides Limited. The monitoring report on compliance status of above EC conditions issued by the Regional office at Lucknow to the project proponent vide letter dated 14th May, 2018 and was found to be satisfactory.

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *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 Pesticides Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13th June, 2011, as amended from time to time, shall be followed.*
- *No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having LD_{50}<100 mg/kg shall be produced. Also, no raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.*
- *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:*
  - *(h) Reactor shall be connected to chilled brine condenser system.*
  - *(i) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
  - *(j) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
  - *(k) Solvents shall be stored in a separate space specified with all safety measures.*
  - *(l) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
  - *(m) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
  - *(n) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 120 cum/day is to be met from MIDC 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:-*
  - *(m) Metering and control of quantities of active ingredients to minimize waste.*
  - *(n) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  - *(o) Use of automated filling to minimize spillage.*
  - *(p) Use of Close Feed system into batch reactors.*
  - *(q) Venting equipment through vapour recovery system.*
  - *(r) 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.*
- *As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 2.5% 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.*
- *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

Agenda No.2.6.1

Development & Production Wells along with Surface Facilities, Phase-III of CBM Block RG(E)-|CBM-2001/1 at Raniganj CBM Block (West Bengal) by M/s Essar Oil & Gas Exploration and Production Ltd – Amendment and extension of EC

[IA/WB/IND2/83627/2013, J-11011/491/2011-IA-II(I)]

2.6.1.1 The proposal is for amendment in environmental clearance granted by the Ministry vide letter dated 26th February, 2013 in favour of M/s Essar Oil Limited (E&P Division) for development & production wells along with surface facilities, Phase-III of CBM Block RG (E)-CBM-2001/1, Raniganj CBM Block located in District Paschim Bardhaman (West Bengal)). The said EC was later transferred on 27th November 2017 from M/s Essar Oil Limited to M/s Essar Oil and Gas Exploration and Production Ltd.

2.6.1.2 The project proponent has requested for amendment in the said EC and extension of validity with the details are as under;

S. No.	Para of EC	Details as per the EC	To be revised/ read as	Justification/ reasons
1	2 (i)	Total of of wells - 650 nos	Out of the total 650 wells 20 exploratory wells proposed for shale Gas.	As per the New MOPNG Notification dated 20th August, 2018, EOGEPL allowed to explore and exploit unconventional hydrocarbons (Shale gas) in the existing CBM Block.
2	2 (i)	With the target depth of ~ 2000 m	With the target depth of ~ 2000 m of CBM wells and ~3000 m of Shale Gas Well	The subsurface shale layer of the area was found in the depth up to 3000 meter.

2.6.1.3 *The EAC, after deliberations and the justification given by the project proponent, recommended for the proposed amendment as above, and extension of validity of the environmental clearance dated 26th February 2013, for a period of three years i.e. till 26th February, 2023.*

Agenda No.2.6.2

Expansion of Bulk Drug Intermediate manufacturing unit at GIDC Jhagdia in District Bharuch (Gujarat) by M/s JPN Products Ltd - Amendment in EC

[IA/GJ/IND2/82643/2009, J-11011/747/2008-IA-II(I)

2.6.2.1 The proposal is for amendment in environmental clearance granted by the Ministry vide letter dated 30th January, 2009 in favour of M/s JNP Products for their project 'Expansion of Bulk Drug Intermediate manufacturing unit' at GIDC Jhagadia in District Bharuch (Gujarat), to facilitate coal as an alternate fuel in addition to LNG (200 Nm3/hr)/biofuel (1000 kg/hr), for 6 TPH boiler.

2.6.2.2 The project proponent has now requested for amendment in the said EC for addition of alternate fuel i.e. coal to the existing boilers where presently bio fuel (Briquettes) is being used.

2.6.2.3 *The EAC, after deliberations, recommended for the proposed amendment to facilitate coal (less than 0.5% sulphur) as an alternate fuel of quantity not exceeding 12 TPD for 6 TPH boiler.*

Agenda No.2.6.3

Expansion of specialty chemicals in premises by M/s Pragna Life Science Pvt. Ltd at Plot no. 409/b/2, GIDC Industrial Estate, Panoli, Taluka Ankleshwar, District Bharuch (Gujarat) - Amendment in Environmental Clearance

[IA/GJ/IND2/63992/2017, IA-J-11011/188/2017-IA-II(I)]

2.6.3.1 The proposal is for amendment in environmental clearance granted by the Ministry vide letter dated 16th August, 2018 in favour of M/s Pragna Life Science Pvt Ltd for the project 'Expansion of Specialty Chemicals' at Plot No.409/B/2, GIDC Industrial Estate, Panoli, Taluka Ankleshwar, District Bharuch (Gujarat).

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

S. No.	Point of EC	Details as per the EC	To be revised	Justification/Reasons
1	Term & Condition (II)	Presently generated effluent of 10 m^3/Day shall continue to be discharged to the CETP operated by M/sPETL, Panoli after conforming to the standards prescribed under the Environment (Protection) Rules, 1986. However, there shall be no additional discharge of effluent due to the proposed expansion.	We already have approved membership for treated effluent discharge of existing (10 KLD) and additional proposed (13.3 KLD) to M/s PETL. we requesting you to kindly continue our existing effluent discharge (10 KLD) to M/s. PANOLI ENVIRO TECHNOLOGY LTD (PETL) (CETP) and also requesting you to approve proposed effluent discharge 13.3 KLD to M/s. PETL (CETP) after primary treatment (Total 23.3 KLD).	We already have approved membership for treated effluent discharge of existing (10 KLD) and additional proposed (13.3 KLD) to M/s. PETL.
2	Term & Condition (VII)	Total fresh water requirement shall not exceed 26.88 cum/day, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from then	Company will discharge the total effluent into CETP, M/s. PETL, Panoli. So, water requirement will be 34.88 cum/day, proposed to be met from GIDC water Supply. Company has obtained permission	Company will discharge the total effluent into CETP, M/s. PETL, Panoli. So, water requirement will be 34.88 cum/day, proposed to be met from GIDC water Supply. Company has obtained permission

		concerned regulatory authority.	from GIDC Water supply.	from GIDC Water supply.

2.6.3.3 *The EAC, after deliberations and especially in view of the environmental clearance granted only on 16th August, 2018 and the proposed facility also to be extended to other similar units, was not inclined to accept the proposal. The Committee opined that such a proposal would involve significant change in water requirement, waste water management and the utilities, and thus amounts to change in scope of the project. The Committee, however, agreed for consideration of the proposal at a later stage.*

Agenda No.2.6.4

Installation of Petro Resid Fluidized Catalytic Cracking Unit (PRFCC) at Mumbai Refinery, Technology Department, First floor, South Block., Mumbai Suburban (Maharashtra) by M/s Bharat Petroleum Corporation Limited - Amendment in ToR

[IA/MH/IND2/74637/2018, J-11011/22/2014-IA-II(I)]

2.6.4.1 The proposal is for amendment in the standard ToR granted by the Ministry vide letter dated 1st June, 2018 in favour of M/s Bharat Petroleum Corporation Limited for installation of Petro Resid Fluidized Catalytic Cracking unit and associated facilities at Mumbai Refinery.

2.6.4.2 The project proponent has requested for amendment in the Terms of Reference with the details as under:

S. No.	Para of TOR	Details as per the TOR	To be revised/read as	Justification/Reasons
1	Page No. 1 - Line 3 of 2nd 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	Standard TOR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance with exemption from Public	The proposal is for Refinery Modernization as new PRFCC is replacement of old Catalytic Cracking Unit (CCU) of 1955 and Fluidized Catalytic Cracking Unit (FCCU) of 1985 by latest state of art technology with improved energy efficiency, yield and reduced emissions. Features such as Tertiary Separation System (TSS), Quench Tower, Selective Catalytic Non Reduction (SCNR) and Selective Catalytic Reduction (SCR) technologies along with Low NOx burners have been included for reduction of SOx, NOx and particulate emissions. Proposed SO_2 emission shall be reduced from the present scenario (from 10.44 TPD to 9.40 TPD) by installing

		environment clearance is prescribed with public consultation.	Consultation.	new SRU with Tail Gas Treating Unit (two trains each of 150 MTPD) under this project. Proposed facilities under the project will be set up within the existing Refinery premises by dismantling CDU 1 & 2. Post implementation of the proposed project, additional effluent generated will be treated in the existing Effluent Treatment Plant. There will be zero liquid discharge from the proposed project.

2.6.4.3 *The EAC, after detailed deliberations and the justification given by the project proponent, recommended for exemption from public hearing as per the extant rules/regulations.*

Day Three: 31st January, 2019

2.7 Environmental Clearance

Agenda No.2.7.1

Bulk drug, bulk drug intermediates and pesticide intermediates manufacturing unit by M/s Anupam Rasayan India Ltd (Unit-VI) at plot No.2423-2425, GIDC Estate Sachin, Taluka Choryasi, District Surat (Gujarat) - Environmental Clearance

[IA/GJ/IND2/75078/2017, IA-J-11011/272/2017-IA-II(I)]

2.7.1.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up of Bulk drug, drug intermediates and pesticide intermediates manufacturing unit of capacity 650 TPM (84 nos of products) by M/s Anupam Rasayan India Ltd (Unit-VI) in an area of 18755 sqm at plot No.2423, 2425, GIDC Estate Sachin, Taluka Choryasi, District Surat (Gujarat).

Out of total 84 nos of products, 11 products are pesticide intermediates (325 TPM), 73 bulk drugs & its intermediates and specialty chemicals (325 TPM), with the details as under:-

S. No.	Product	CAS No.	Capacity (TPM)	LD50	Category
Acetylated Compounds					
1	2,4-Dichloro Acetophenone	2234-16-4	200	1800 mg/Kg	5 (b)
2	2,5-Dichloro Acetophenone	2476-37-1		2000 mg/Kg	5 (f)
3	4-Fluoro Acetophenone	403-42-9		1150 mg/kg	5 (b)
4	2,4-Dichloro-5-Fluoro Acetophenone	704-10-9		2000 mg/Kg	5 (f)
5	2,4-Dichloro Phenacyl Bromide	2631-72-3		1580 mg/kg	5 (b)
6	2,4-Dichloro Phenacyl Chloride	4252-78-2		300 mg/Kg	5 (b)
7	2,4-Dichlorobutero Phenone	66353-47-7		300 mg/Kg	5 (b)
Phenoxy Compounds/Diphenyl Ether Compounds					
8	2 -Chloro-4-(4-Chloro Phenoxy)			1060 mg/kg	5 (b)

	Phenacyl Bromide	112110-16-4	200		
9	2-Chloro-4-(4-Chlorophenoxy) Acetophenone / 4-Acetyl-3,4'-Dichloro Diphenyl Ether	119851-28-4		2200 mg/kg	5 (b)
10	3- Chloro-4-(2-Bromo Ethyl-4-Methyl-1,3-dioxolane-2-yl)-4-Chloro Diphenyl Ether	873012-43-2		950 mg/kg	5 (b)
11	4-(2-Bromomethyl -4-propyl-1,3-dioxolane-2-yl)-1,3-Dichlorobenzene	60207-89-8		300 mg/Kg	5 (b)
Benzoic Acid/Ester Compounds					
12	5-Methyl-2,3-Pyridine Dicarboxylic Acid	112110-16-4	100	2000 mg/kg	5 (f)
13	3,4,5-Tri Methoxy Benzoic acid	118-41-2		1870 mg/kg	5 (f)
14	3,4,5-Tri Methoxy Toluene	6443-69-2		1500 mg/kg	5 (f)
15	1-(4-methoxyphenyl)-3-(4-tert-butylphenyl)propane-1,3-dione	87075-14-7		1200 mg/kg	5 (f)
16	2-Ethylhexyl-2-Cyano-3,3-diphenyl-2-Propionate	6197-30-4		5000 mg/Kg	5 (f)
17	2-Ethylhexyl(2E)-3-(4-methoxyphenyl)prop-2-enoate	5466-77-3		5000 mg/Kg	5 (f)
18	2-Ethylhexyl-2-Hydroxybenzoate	118-60-5		200 mg/Kg	5 (f)
19	2 – Amino 3-Chloro Benzoic Acid Methyl Ester	77820-58-7		5000 mg/Kg	5 (f)
20	2- Nitro-5-Chloro-4-Methyl Benzoic Acid Iso Propyl Ester	1204518-43-3		2100 mg/Kg	5 (f)
21	N-(2-Hydroxypropyl)-2-Picolylamine	68892-16-0		3600 mg/Kg	5 (f)
Advanced Specialty/Pharma Products					
22	Ortho Phenylene Diamine	95-54-5	150	510 mg/Kg	5 (f)
23	Meta Phenylene Diamine	108-45-2		677 mg/Kg	5 (f)
24	Para Phenylene Diamine	106-50-3		200 mg/Kg	5 (f)
25	Resorcinol / 1,3 Benzenediol / Meta Di Hydroxy Benzene	108-46-3		200 mg/Kg	5 (f)
26	Meta Amino Phenol	591-27-5		920 mg/Kg	5 (f)
27	2,4-Difluoro Aniline	367-25-9		920 mg/Kg	5 (b)
28	2,4- Difluoro Nitrobenzene	446-35-5		200 mg/Kg	5 (f)
29	2,6- Difluoro Aniline	5509-65-9		2000 mg/Kg	5 (f)
30	1,2-Di Fluoro Benzene	367-11-3		2000 mg/Kg	5 (f)
31	2-Amino Benzotrifluoride	88-17-5		480 mg/Kg	5 (f)
32	3 – Amino Benzotrifluoride	98-16-8		480 mg/Kg	5 (f)
33	4 – Amino Benzotrifluoride	455-14-1		128 mg/Kg	5 (f)
34	3,4-Difluoro Benzonitrile	64248-62-0		1460 mg/kg	5 (b)
35	4-[[4,6-bis[[4-(2-ethylhexoxy-oxomethyl]phenyl]amine]-1,3,5-triazin-2-yl]amino]benzoic acid - 2-ethylhexyl ester	88122-99-0		5000 mg/Kg	5 (f)
36	4, 4'-[[6-[[(1, 1-dimethylethyl)amino]carbonyl]phenyl]amino]-1, 3, 5-triazine-2,	154702-15-5		5000 mg/Kg	5 (f)

	4-diyl]diimino]bis-bis(2-ethyhexyl)benzoate.				
37	2-(2, 4-dihydroxyphenyl)-4, 6-bis (2, 4-dimethylphenyl)-1, 3, 5-triazine.	1668-53-7		1690 mg/kg	5 (f)
38	4-n-Butyl Resorcinol	18979-61-8		500 mg/Kg	5 (f)
39	4-n-Hexyl Resorcinol	136-77-6		550 mg/Kg	5 (f)
40	Propanedionic 2,2'-(1,4-phenylenedimethylidyne)bis - 1,1',3,3'-tetraethyl Ester	6337-43-5		2000 mg/Kg	5 (f)
41	2,4-dihydroxy Benzophenone	131-56-6		8600 mg/Kg	5 (f)
42	2-Hydroxyl-4-methoxyBenzophenone	131-57-7		12800 mg/Kg	5 (f)
43	2-Hydroxyl-4-(Octyl)Benzophenone	1843-05-6		10000 mg/Kg	5 (f)
44	2-Hydroxy-3,3,5-trimethyl Cyclohexyl Ester Benzoic Acid	118-56-9		8400 mg/Kg	5 (f)
45	4H-3,1-Benzoxazin-4-one,2,2'-(1,4-phenylene)bis-	18600-59-4		400 mg/Kg	5 (f)
46	2-(4,6-diphenyl-1,3,5-triazin-2-yl)-5-(hexyloxy)phenol	147315-50-2		2000 mg/Kg	5 (f)
47	2-Hydroxy-4-Methoxy Benzophenone -5- Sulphonic acid	4065-45-6		6400 mg/Kg	5 (f)
48	Benzoic acid -4-[[(methylphenylamino)methylene]amino] Ethyl Ester	57834-33-0		2000 mg/Kg	5 (f)
49	2-(5-chloro-2H-benzotriazol-2-yl)-6- (1,1-dimethylethyl)-4-Methyl Phenol	3896-11-5		2000 mg/Kg	5 (f)
50	2-(2H-benzotriazol-2-yl)-4-(1,1-dimethylethyl)-6-(1-methylpropyl)phenol	36437-37-3		5000 mg/Kg	5 (f)
51	2-(2H-benzotriazole-2-yl)-4,6 bis(1-methyl-1-Phenylethyl)phenol	70321-86-7		7750 mg/Kg	5 (f)
52	2-(2H-benzotriazol-2-yl)-4,6-bis (1,1-dimethylethyl)phenol	3846-71-7		2000 mg/Kg	5 (f)
53	2-(2H-benzotriazole-2-yl)-4-methyl phenol	2440-22-4		10,000 mg/Kg	5 (f)
54	2-(5-chloro-2H-benzotriazol-2-yl)-4,6-bis (1,1-dimethylethyl)phenol	3864-99-1		5,000 mg/Kg	5 (f)
55	2-(2H-benzotriazol-2-yl)-4-(1,1-dimethylethyl)-phenol	3147-76-0		5,000 mg/Kg	5 (f)
56	2,2'-methylene bis [6-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol	103597-45-1		10,000 mg/Kg	5 (f)
57	2-(2H-Benzotriazol-2-yl)-4-(1,1,3,3-tetramethybutyl)-Phenol	3147-75-9		2000 mg/Kg	5 (f)
58	2- Acetylphenothiazine	66311-94-3		180 mg/Kg	5 (f)
59	2- Chlorophenothiazine	92-39-7		520 mg/Kg	5 (f)

60	2- Trifluoromethyl Phenothiazine	92-30-8		300 mg/Kg	5 (f)
61	2-Methoxy Phenothiazine	1771-18-2		2000 mg/Kg	5 (f)
62	2- Mercaptomethyl Phenothiazine	7643-08-5		135 mg/Kg	5 (f)
63	Chlopromazine Hydrochloride	50-53-3		300 mg/Kg	5 (f)
64	Bupropion Hydrochloride	34911-55-2		248 mg/Kg	5 (f)
65	2-(6-Methoxy napthalen-2-yl) Propionic Acid	22204-53-1		7060 mg/Kg	5 (f)
66	Citalopram Hydro Bromide	59729-33-8		360 mg/Kg	5 (f)
67	Cyclobenzaprine Hydrochloride	303-53-7		295 mg/Kg	5 (f)
68	Cyproheptadine Hydrochloride	129-03-3		4100 mg/Kg	5 (f)
69	Tamoxifen Citrate	10540-29-1		147 mg/Kg	5 (f)
70	Doxepine Hydrochloride	1668-19-5		440 mg/Kg	5 (f)
71	Doxylamine Succinate	469-21-6		300 mg/Kg	5 (f)
72	Imatinib Mesylate	152459-95-5		1499 mg/Kg	5 (f)
73	Etoricoxib	202409-33-4		320 mg/Kg	5 (f)
74	Dothiepin (Dosulepin) Hydrochloride	113-53-1		791 mg/Kg	5 (f)
75	Flupentixol Dihydrochloride	2413-38-9		400 mg/Kg	5 (f)
76	Ketamine Hydrochloride	6740-88-1		1257 mg/Kg	5 (f)
77	Losartan Potassium	114798-26-4		2000 mg/Kg	5 (f)
78	Teneligliptin Hydrobromide Hydrate	760937-92-6		2000 mg/Kg	5 (f)
79	Olmesartan Medoxomil	144689-24-7		5000 mg/Kg	5 (f)
80	Keto Loratadine	79794-75-5		2000 mg/Kg	5 (f)
81	Tedizolid Phosphate	856866-72-3		1070 mg/Kg	5 (f)
82	Enzalutamide	915087-33-1		300 mg/Kg	5 (f)
83	Empagliflozin	864070-44-0		2000 mg/Kg	5 (f)
84	Dapagliflodin	461432-26-8		2000 mg/Kg	5 (f)
Total Production of All Groups (1 to 4)			**650**		

By-Products

1	24-28 % Aluminum Chloride Solution	2588
2	28 - 30% Hydrochloric Acid	439
3	22 - 28% HBr Solution	538
4	Dilute Sulphuric Acid	885
5	15 - 20% Sodium Sulphate(Na_2SO_4) Solution	330
6	Sodium Bromide Salt & Solution	133
7	Sodium Sulphate Salt & Solution	175
8	15-20% NaCl Salt & Solution	1509
9	Potassium Bromide Salt & Solution	32
10	Potassium Chloride Salt & Solution	153
11	Aluminum Hydroxide Salt	152
12	Sodium Bi Sulphite Salt & Solution	3655
13	Ammonium Chloride alt	24
14	Sodium Acetate Salt	78
15	Ammonium Acetate Salt	550
16	Zinc Chloride ($ZnCl_2$) Solution	596
17	Magnesium Sulphate ($MgSO_4$) Salt	61

Synthetic organic chemicals industry located in notified industrial area is covered under category B of item 5(f) of the schedule to the EIA Notification, 2006 and requires appraisal at State level. However, in case of pesticides, only those units producing technical grade pesticides, are covered under category A of item 5(b). Pesticide specific intermediates, which are essentially synthetic organic chemicals, are not specifically mentioned either under category A or B of the items 5(f) & 5(b), and needs to be looked into on case to case basis depending upon their proportion.

The ToR for the project was granted on 12th August, 2018. Public Hearing is exempted as the project site is located inside the notified industrial area.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wild life Corridors etc within 10 km from the project site.

Total land area is 18755 m^2. Industry will be developed Greenbelt in an area of 38% i.e. 7195 m^2 out of 18755 m^2 total area of the project. The estimated project cost is Rs. 80.0 Crores. Total Capital cost earmarked towards environmental pollution control measures is Rs. 6.0 Crore and recurring cost (Operation and Maintenance) will be around Rs. 8.0 Crore per annum.

Total water requirement will be 455 m^3/day of which fresh water requirement of 440 m^3/day will be met from GIDC water supply.

High COD & High TDS effluent will be disposed off to CETP of Globe Enviro Care Ltd. (GECL) / Mahavir Eco Project Pvt. Ltd (MEPPL) or treated in MEE & Condensate of MEE 47 KLD will be reused in plant premises. 15.0 KL/Day Low COD & Low TDS Industrial Effluent from scrubber and cooling blow down will be directly reused in plant premises.20.0 KL/Day domestic waste water will be disposed in Soak Pit or Dispose of to GECL for mixing at Bio Reactor.

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

2.7.1.2 The Committee was informed that there are similar proposals submitted on the Ministry's portal for consideration of environmental clearance. These proposals, in view of dual categorization and the discrepancy so involved, were not accepted in the first instance. He urged the Committee to look into the matter and to evolve certain criterion in this regard, compatible with the provisions of the EIA Notification, 2006, to ensure consistency henceforth.

2.7.1.3 *The EAC, in the first instance and especially in view of drugs & its intermediates and pesticide intermediates manufacturing within the same premises, as envisaged under the project, was not comfortable to accept the proposal. As resolved earlier also in similar cases, the Committee desired that the Ministry may take a comprehensive view on categorization of such projects, taking into consideration its observations in para 2.7.1.2 above.*

At the same time and considering the proposal on merits, the Committee recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*

- *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 Pesticides Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13th June, 2011, as amended from time to time, shall be followed.*
- *No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having LD_{50}<100 mg/kg shall be produced. Also, no raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.*
- *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:*
  - *(o) Reactor shall be connected to chilled brine condenser system.*
  - *(p) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
  - *(q) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
  - *(r) Solvents shall be stored in a separate space specified with all safety measures.*
  - *(s) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
  - *(t) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
  - *(u) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 440 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:-*
  - *(s) Metering and control of quantities of active ingredients to minimize waste.*
  - *(t) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  - *(u) Use of automated filling to minimize spillage.*

(v) *Use of Close Feed system into batch reactors.*
(w) *Venting equipment through vapour recovery system.*
(x) *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.*
- *As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 2.5% 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.*
- *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

Agenda No.2.7.2

Proposed organic and speciality chemicals manufacturing unit at Plot No.F-104, Chincholi MIDC, Taluka Mohol District Solapur (Maharashtra) by M/s Balaji Amines Ltd. (Unit-IV) - Environmental Clearance

[IA/MH/IND2/75223/2018, IA-J-11011/189/2018-IA-II(I)]

2.7.2.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up of synthetic organic chemical manufacturing unit of total capacity 874.2 TPD by M/s Balaji Amines Ltd (Unit-IV) in an area of 36 ha at Plot No.F-104, Chincholi MIDC, Taluka Mohol, District Solapur (Maharashtra).

The details of the products and capacity are as under:-

S. No.	**Product/ By-product Name**	**Quantity** (TPD)
1.	Mono Iso Propyl Amine (MIPA)	50
2.	Methyl Iso Butyl Ketone (MIBK)	100
3.	Di Phynel Amine (DPA)	35
4.	N Butyl Thiophosphoric Triamide (NBPT)	10
5.	Iso Propyl Alcohol (IPA)	165.6
6.	Di-isopropyl ether	6.6
7.	Propane	32.2
8.	Di Methyl Carbonate (DMC)	55.2

9.	Propylene Carbonate	14.4
10.	Propylene Glycol	55.2
11.	Methyl Amines	120
12.	Choline Chloride 75 %	70
13.	Choline Chloride 60%	50
14.	Choline Chloride 98%	10
15.	Ethyl Amines	100
	Total	**874.2**
16.	Captive Power Plant (CPP) 5 MWH X 2	10 MWH
	By Products	
1	Hydrochloric acid	6.37
2	Spent Caustic Solution (20%) (SCS)	2.4
3	2,6 Dimetyal-4-Hptanone	1.2
4	Higher Boiler	1.5
	Total	**11.47**

The project/activity is covered under category B of item 5(f) 'Synthetic Organic Chemicals' of schedule to the Environment Impact Assessment (EIA) Notification, 2006. However, due to applicability of general condition (Great Indian Bustard Sanctuary within 5 km), the project requires appraisal/approval at Central level in the Ministry.

Total area acquired for the project is 36 ha. Industry will develop greenbelt in an area of 33% i.e. 11.87 ha out of total area of the project. The estimated cost for proposed project is Rs.400 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.54.70 Crores and the recurring cost (operation and maintenance) will be about Rs.7 Crores per annum.

Great Indian Bustard (GIB) Sanctuary is at a distance of 3.3 km from the project site. To obtain wildlife clearance from the Standing Committee of NBWL, proposal has been submitted on 21st September, 2018. River Sina flows at distance of 6 km in South.

ToR for the project was granted on 9th August 2018. Public Hearing is exempted as the project site is located inside the notified industrial area.
Total water requirement is estimated to be 5076.18 m3/day, which includes fresh water of 4026 m3/day to be met from MIDC water supply.

Industrial effluent of 1018.93 m^3/day generated will be segregated into two streams namely High TDS and Low TDS for the efficient treatment of wastewater. The effluent will be treated in the ETP followed by MEE. Treated water of 960 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.

Three coal fired boilers of 60 TPH each will be installed. Electrostatic Precipitator (ESP) with a stack of 50 m height will be provided to control the particulate emissions within the statutory limit of 115 mg/Nm3 for the proposed boilers.

2.7.2.2 *The EAC, after deliberations, insisted for clarifications/inputs in respect of the following:-*

- *Base line air quality not consistent in terms of the core parameters namely, PM, SO_2 & NO_x, and needs to be checked with ambient air quality data of CPCB.*
- *Products/by-products details to be revised in terms of the schedule to the EIA Notification, 2006.*
- *Strom water management.*

- *Firm commitment for expenditure towards CER.*
- *Present status of wildlife clearance to be obtained from the Standing Committee of NBWL.*

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

Agenda No.2.7.3

Expansion of agro-chemicals unit from 2150 TPM to 4662 TPM by M/s Meghmani Organics Ltd. (Unit-III, Agro Div) at plot No.CH-1, CH-2/A, D-2/CH 10/A, GIDC, Dahej, Taluka Vagra, District Bharuch (Gujarat) - Reconsideration of Environmental Clearance

[IA/GJ/IND2/66011/2017, IA-J-11011/372/2017-IA-II(I)]

2.7.3.1 The proposal was earlier considered by the EAC in its meeting held on 24-26 September, 2018, wherein the EAC, asked for information/additional details in respect of the following:

- LD_{50} values for the each of the products. No product having LD_{50} less than 1000 mg per kg to be included.
- Comprehensive plan for achieving ZLD and also the solid waste management.
- 3D modelling for risk assessment to be carried out to arrive at adequate mitigation measures to effectively address the same.

2.7.3.2 In response to the above observations, parawise replies submitted by the project proponent, are as under:-

S. No.	ADS	Reply
1	LD_{50} values for the each of the products. No product having LD_{50} less than 1000 mg per kg to be included	LD_{50} values for all products has been submitted
2	Comprehensive plan for achieving ZLD and also the solid waste management.	Revised details has been submitted
3	3D modelling for risk assessment to be carried out to arrive at adequate mitigation measures to effectively address the same.	Report for 3D modelling for risk assessment has been submitted

2.7.3.3 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of agro-chemicals unit from the present capacity of 2150 TPM to 4662 TPM (involves change in production capacity of some of the existing products and addition of 9 new products) by M/s Meghmani Organics Ltd.

(Unit-III, Agro Div) in an area of 82987 sqm at plot No.CH-1, CH-2/A, D-2/CH 10/A, GIDC, Dahej, Taluka Vagra, District Bharuch (Gujarat).

The details of the existing and proposed products are as under:-

S. No.	Name of product	Quantity (MT/Month)		
		Existing	Proposed	Total
1.	2,4 D Esters	50	0	50
2.	MCA (Mono Chloro Acetic Acid)	400	0	400
3.	Cypermethrin	200	0	200
4.	Profenophos	200	0	200
5.	Diafenthiuron	100	0	100
6.	2,4 D Amine	150	200	350
7.	2,4 D Sodium	100	200	300
8.	2,4 D Acid (2,4,Di Chloro Phenoxy Acetic Acid)	700	900	1600
9.	MPB (Meta Phenoxy Benzaldehyde)	150	50	200
10.	Permethrin	50	50	100
11.	Zeta Cypermethrin	50	50	100
12.	L C Acid (Lambda Cyhalothric Acid)	0	100	100
13.	Thiamethoxam	0	100	100
14.	A. Fipronil and / Or B. Flonicamide	0	100	100
15.	Bifenthrin Alchohol	0	100	100
16.	Bifenthrin	0	100	100
17.	TCHO (Thiocyclam)	0	100	100
18.	TCAC (Tri Chloro Acetyl Chloride)	0	300	300
19.	2,6 DCP	0	109	109
20.	Chlorophenols	0	53	53
	Total Product	**2150**	**2512**	**4662**

By-Products

S. No.	Name of by-product	Quantity (MT/Month)		
		Existing	Proposed	Total
1.	Hydrochloric Acid (30%)	1632	2890	4522
2.	Aluminium Chloride	672	224	896
3.	Bromine	70	113	183
4.	Hypochlorite	270.2	352.2	622.4
5.	KCl solution	389	130	519
6.	ML (from MCA plant)	193	0	193
7.	Ammonia Solution (in the form of Ammonium Sulphate)	20.5	0.5	21
8.	HBr solution (30%)	210	0	210
9.	Trimethyl Ammonium Bromide	448	0	448
10.	SBS (Sodium Bi-Sulphite)	0	448	448
	Total	**3904.7**	**4157.7**	**8062.4**

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

ToR for the project was granted on 24th August, 2017. As the project is located within PCPIR, Gujarat, Public Hearing is exempted as per para 7(i) III stage (3) (i) (b) of EIA Notification, 2006.

Existing land area is 82,987 m^2. No additional land shall be required for the proposed expansion. Industry has already developed/will develop greenbelt in an area of 33% i.e. 27490 m2 out of total area of the project. The total estimated cost of the proposed expansion is Rs.120 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.11.45 Crores and the Recurring cost (operation and maintenance) will be about Rs.2.19 Crores per annum.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wild life Corridors etc within 10 km from the project site.

Total water requirement is 2824 m³/day (existing 1099 m³/day + proposed 1725 m³/day) of which fresh water requirement of 2718 m³/day will be met from GIDC. From 2nd day onwards 106 m³/day treated water from the ETP will be recycled/ reused for industrial use. Thus, total fresh water requirement from 2nd day onwards will be 2718 m³/day (2824 – 106 m³/day).

Effluent of 2123 m³/day quantity will be treated through ETP, out of which 684 m³/day will be reused and remaining treated effluent of 1438 cum/day will be discharge into underground GIDC - drainage line and ultimately disposal in deep sea.

Existing unit has 8 TPH natural gas fired boiler. To cater the proposed expansion one 8 TPH coal fired boiler will be installed. Multi cyclone dust collector/bag filter with a stack of height of 30 m will be installed to control the particulate emissions within the statutory limit for proposed boiler.

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 granted EC vide letter dated 13th April, 2009 for existing products in favour of M/s Meghmani Organics Ltd. The monitoring report on compliance status of above EC conditions issued by the Regional office at Bhopal vide letter dated 24th April, 2018 and was found to be satisfactory.

The expenditure towards CER for the project would be 0.75% of the project cost as committed by the project proponent.

Consent to Operate for the existing capacity has been obtained from the State PCB which is valid up to 1st August, 2020.

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board as required.*
- *The treated effluent of* 1438 cum/day *shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, for* discharge into underground GIDC - drainage line and ultimately disposal in deep sea*.*
- *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 pesticide Industry issued by the Ministry vide G.S.R. 446(E) dated 13th June,2011 and amended from time to time shall be followed.*
- *No pesticides banned by the Ministry of Agriculture & Farmers Welfare, or having LD_{50}<100 mg/kg shall be produced. Also, no any raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.*
- *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* 2718 *cum/day to be met from* MIDC 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.*
- *Recommendations contained in Risk assessment report using 3D modeling shall be strictly implemented.*
- *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 0.75% 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.*
- *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

Agenda No.2.7.4

Expansion for manufacturing of Surfactants & Specialty Surfactants Chemicals from 1715 MTPM to 3000 MTPM at Survey No. 193, Village Kherdi, Khanvel Udhava Road, Silvassa, UT of Dadra & Nagar Haveli by M/s Aarti Industries Ltd - For reconsideration of Environment Clearance

[IA/DN/IND2/42175/2014, No. J-11011/394/2014 IA II(I)]

2.7.4.1 The proposal was earlier considered by the EAC in its meeting held on 8-9 December, 2016, wherein the EAC, asked for information/additional details in respect of the following:

- Copy of a valid Consent to Operate Certificate from concerned SPCB.
- Permission from CGWB for withdrawal of ground water as required for the project.
- Details of Zero Liquid Discharge system.

2.7.4.2 In response to earlier observations of the EAC, parawise replies submitted by the project proponent, are as under:-

S. No.	ADS	Reply
1	Copy of a valid Consent to Operate Certificate from concerned SPCB	Copy of valid Consent to Operate has been submitted
2	Permission from CGWB for withdrawal of ground water as required for the project.	Permission from CGWB for withdrawal of ground water has been submitted
3	Details of Zero Liquid Discharge system.	Scheme of Zero Liquid Discharge system has been submitted

2.7.4.3 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for Expansion of synthetic organic chemical manufacturing unit from 1715 MTPM to 3000 MTPM by M/s Aarti Industries Ltd in an area of 30000 sqm at Survey No.193, Village Kherdi, Khanvel Udhava Road, Silvassa, UT of Dadra & Nagar Haveli.

The details of the existing and proposed products and capacity are as under:-

S.No	Name of Finished products	Existing Qty (in MT/Month)	Total Qty after Expansion (in MT/Month)
Group A – Surfactants (100% Purity Basis)			
1	Alfa Olefin Sulfonate (AOS)	250	**3000**
2	Sodium Lauryl Sulfate (SLS)/ Primary Alocohol Sulfate (PAS)	250	
3	Sodium Lauryl Ether Sulfate (SLES)	165	
4	Linear Alkyl Benzene Sulfonic Acid (LABSA/Acid Slurry)	650	
5	Liquid Detergents	20.83	
6	Household Cleaners	12.50	
7	Ammonium Lauryl Sulfate (ALS)	--	
8	Ammonium Lauryl Ether Sulfate (ALES)	--	
Group B - Speciality Surfactants			
1	Fatty Monoethanol Amide	--	
2	Fatty Diethanol Amide	--	
3	Cocoamidopropyl Betaine	--	
4	Coco betaines	--	
5	Amine oxides	--	
6	Sodium Lauryl Sulfosuccinate (LSS)	--	
7	Sodium Lauryl Sulfosuccinate (LES)	--	
8	Benzalkonium Chloride 50%	--	
9	Benzalkonium Chloride 80%	--	
10	Ether Carboxylate, Sodium Salt	--	
11	Alcohol / Amine Ethoxylates	--	
12	Ethylene Glycol MonoStearate	--	
13	Ethylene Glycol DiStearate	--	
14	Sorbitan Monooleate	--	
	Total	**1348.33**	**3000**

The project/activity is covered under category A of item 5(f) 'Synthetic Organic Chemicals' of schedule to the Environment Impact Assessment (EIA) Notification however due to applicability of general condition (Dadra Nagar Haveli Wild life Sanctuary is within 5 Km) project requires appraisal/approval at Central level in the Ministry.

Existing land area is 30000 m^2. No additional land will be required for the proposed expansion. Industry has already developed/ will develop greenbelt in an area of 17.45 % i.e., 5235 m2out of total area of the project. The estimated project cost is Rs.10.70 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs.1.46 Crore and the Recurring cost (operation and maintenance) will be about Rs.1.15 crores per annum.

D &NH wildlife sanctuary (deer park) is at a distance of 2.5 km from the project site.

The ToR for the project was granted on 23rd February, 2015. Public Hearing is exempted as the project site is located inside the notified industrial area.

Total fresh water requirement will be 232 cum/day proposed to be met from ground water. The permission for withdrawal of 232 cum/day has been obtained from the CGWA vide letter dated 2nd May, 2018.

Industrial effluent of 50 cum/day will be treated in the ETP followed by RO and MEE. Treated water of 49 cum/day will be recycled for cooling tower make up. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Existing unit has 4 TPH & 2 TPH agro based fuel fire boiler fired boiler. Additionally 1 TFH of 2 lakhs kcal/Hr will be installed. After proposed project coal/ lignite will be used as fuel in steam boiler and TFH.Bag filter with a stack of heightof 30 m will be installed for controlling the particulate emissions within thestatutory limit of 150 mg/$Nm^3$for the proposed boilers.

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.

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board as required.*
- *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 232 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:-*
  (g) *Metering and control of quantities of active ingredients to minimize waste.*
  (h) *Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  (i) *Use of automated filling to minimize spillage.*
  (j) *Use of Close Feed system into batch reactors.*
  (k) *Venting equipment through vapour recovery system.*
  (l) *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.2.7.5

Proposed 60 TMTPA capacity LPG Bottling Plant by M/s HPCL at Village Pitamahal, Tehsil Seskhal, District Rayagada (Odisha) - Environment Clearance

[IA/OR/IND2/89411/2017, IA-J-11011/31/2019-IA-II(I)]

2.7.5.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for LPG storage in Mounded Storage Vessels (3x300 MT) and Bottling Plant of capacity 60 TMTPA by M/s HPCL in an area of 84844 m^2 at Village Pitamahal, Tehsil Seskhal, District Rayagada (Odisha).

The project/activity is covered under category B of item 6(b) 'Isolated storage & handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules1989 amended 2000)' of schedule to the Environment Impact Assessment (EIA) Notification, 2006. However, due to absence of SEAC/SEIAA in the State, the proposal was considered by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

ToR for the project was issued by SEAC Odisha vide letter dated 25th August 2018. Public hearing was conducted by the Odisha Pollution Control Board on 28th November 2018.

Total land area is 84844 m^2 (20.97 acres). Industry will develop greenbelt in an area of 32.96% i.e.27962 m2 out of total area of the project. The estimated project cost is Rs. 91.64 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs.98 lakhs and the Recurring cost (operation and maintenance) will be about Rs.13 lakhs per annum.

Total fresh water requirement is estimated to be 15 cum/day to be met from the bore well. No industrial effluent will be generated at the project site. Sewage generated from domestic sources will be sent to septic tank followed by soak pit. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

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.

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board as required.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Total fresh water requirement shall not exceed 15 m^3/day proposed to be met from borewell. Prior permission shall be obtained from the concerned regulatory authority/CGWA.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *During construction phase, air pollution and the solid waste management aspects need to be properly addressed ensuring compliance of the Construction and Demolition Waste Management Rules, 2016.*
- *The green belt of 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 and 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.*
- *Regular monitoring of VOC and HC in the work zone area in the plant premises should be carried out and data to be submitted to Ministry's Regional Office, CPCB and State Pollution Control Board. Quarterly monitoring for fugitive emissions should be carried out as per the guidelines of CPCB and reports submitted to Ministry's Regional Office.*
- *Necessary approvals from Chief Controller of Explosives, as applicable, shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and implemented.*
- *Emergency Response Plan should be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill should be conducted once a month.*
- *Additional safety measures should be taken by using remote operated shut off valve, Double Block &Bleed valve (DBB), impervious dyke wall and un-bonded flexible roof drain pipe, if applicable.*
- *Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.*
- *Road tankers should be equipped to the standard specified in national regulations reputable code. Vehicles should be mobilized during transfer operations and equipped to prevent untimely movement. Loading/unloading bays should be protected against impact. Fire-resistant coatings shall be provided to tanks/vessels.*
- *High and low-level alarms shall be fitted to plant storage tanks which can detect overfilling. However, proper supervision shall be done every time.*
- *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.*
- *Water sprinkling has to be undertaken on regular basis to control the polluting particles.*
- *Approach road shall be made pucca to minimize generation of suspended dust.*
- *The energy sources for lighting purposes shall preferably be LED based.*
- *Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.*
- *Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and guidelines prepared by OISD, DGMS and Govt. of India. Mock drill should be conducted once in a month. onsite and off-site Disaster Management Plan shall be implemented.*
- *Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.*
- *Additional safety measures should be taken by using remote operated shut off valve, double block & bleed valve (DBB), impervious dyke wall and un-bonded flexible roof drain pipe, if applicable.*
- *High and low-level alarms shall be fitted to plant storage tanks which can detect overfilling. However, proper supervision shall be done every time.*
- *Unit should carry out safety audit and report submitted to the Regional Office. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.*

- *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

Agenda No.2.7.6

Proposed POL Depot by M/s BPCL at Village Radhanagar, Taluk Chas, District Bokaro (Jharkhand) - Environment Clearance

[IA/JH/IND2/73804/2018, IA-J-11011/117/2018-IA-II(I)]

2.7.6.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for storage of Petroleum, Oil & Lubricants (POL) of capacity 29170 KL (17 nos of tanks) by M/s BPCL in an area of 313829.34 m^2 at Village Radhanagar, Taluk Chas, District Bokaro (Jharkhand).

The details of storage facilities are as under:

Tank No.	Tank Type	Product	Class of Product	Dia (m)	Height/ Length (m)	Licensed Capacity (KL)
TK -1	A/G Cone Roof	HSD	B	20	17.5	5290
TK -2	A/G Cone Roof	HSD	B	20	17.5	5290
TK -3	A/G Cone Roof	HSD	B	20	17.5	5290
TK -4	A/G Floating Roof	MS	A	20	15.5	4315
TK -5	A/G Floating Roof	MS	A	20	15.5	4315
TK -6	A/G Cone Roof	ETHANOL	A	9	10	575
TK -7	A/G Cone Roof	ETHANOL	A	9	10	575
TK -8	A/G Cone Roof	SKO	B	9	13.5	800
TK -9	A/G Cone Roof	SKO	B	9	13.5	800
TK -10	A/G Cone Roof	Bio-Diesel	Excluded	9	13.5	800
TK -11	A/G Cone Roof	Bio-Diesel	Excluded	9	13.5	800
TK -14	Under Ground	SKO	B	3.2	12.6	100
TK -15	Under Ground	MS	A	3.2	12.6	100
TK -16	Under Ground	HSD	B	3.2	12.6	100
TK -17	Under Ground	HSD	B	2	6.75	20
Total						**29170**

The project/activity is covered under category B of item 6(b) 'Isolated storage & handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules1989 amended 2000)' of schedule to the Environment Impact Assessment (EIA) Notification, 2006. However, due to applicability of general condition (Interstate boundary of West Bengal at 3.5 km), the project requires appraisal by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

There are No National parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc within 10 km. Garga Dam is at a distance of 2.4 km in North West direction.

The ToR has been issued by the Ministry vide letter dated 29th March 2018. Public hearing has been conducted by the State Pollution Control Board on 23rd October 2018. The main issues raised during the public hearing are related to indirect /direct employment, land compensation. Total land area is 313829.34 m^2. Industry will develop greenbelt in an area of 33.14% i.e., 87176.10 m^2 out of total area of the project. The estimated project cost is Rs.350 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs.88 lakhs and the recurring cost (operation and maintenance) will be about Rs.15 lakhs per annum.

Total fresh water requirement is estimated to be 7 cum/day to be met from the borewell. No industrial effluent will be generated at the project site. Sewage generated from domestic sources will be sent to septic tank followed by soak pit. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

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.

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board as required.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Total fresh water requirement shall not exceed 7 m^3/day proposed to be met from borewell. Prior permission shall be obtained from the concerned regulatory authority/CGWA.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *During construction phase, air pollution and the solid waste management aspects need to be properly addressed ensuring compliance of the Construction and Demolition Waste Management Rules, 2016.*
- *The green belt of 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 and in consultation with the State Forest Department.*
- *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.*
- *Regular monitoring of VOC and HC in the work zone area in the plant premises should be carried out and data to be submitted to Ministry's Regional Office, CPCB and State Pollution Control Board. Quarterly monitoring for fugitive emissions should be carried out as per the guidelines of CPCB and reports submitted to Ministry's Regional Office.*
- *Necessary approvals from Chief Controller of Explosives, as applicable, shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and implemented.*
- *Emergency Response Plan should be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill should be conducted once a month.*
- *Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.*
- *Road tankers should be equipped to the standard specified in national regulations reputable code. Vehicles should be mobilized during transfer operations and equipped to prevent*

untimely movement. Loading/unloading bays should be protected against impact. Fire-resistant coatings shall be provided to tanks/vessels.

- *High and low-level alarms shall be fitted to plant storage tanks which can detect overfilling. However, proper supervision shall be done every time.*
- *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.*
- *Water sprinkling has to be undertaken on regular basis to control the polluting particles.*
- *Approach road shall be made pucca to minimize generation of suspended dust.*
- *The energy sources for lighting purposes shall preferably be LED based.*
- *Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.*
- *Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and guidelines prepared by OISD, DGMS and Govt. of India. Mock drill should be conducted once in a month. onsite and off-site Disaster Management Plan shall be implemented.*
- *Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.*
- *Additional safety measures should be taken by using remote operated shut off valve, double block & bleed valve (DBB), impervious dyke wall and un-bonded flexible roof drain pipe, if applicable.*
- *High and low-level alarms shall be fitted to plant storage tanks which can detect overfilling. However, proper supervision shall be done every time.*
- *Unit should carry out safety audit and report submitted to the Regional Office. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.*
- *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

Agenda No.2.7.7

Setting up of Oil depot on CUF (Common User Facility with IOCL & HPCL) by M/s BPCL at Sadashibpur (Meramundali), District Dhenkanal (Odisha) - Environment Clearance

[IA/OR/IND2/89481/2016, IA-J-11011/32/2019-IA-II(I)]

2.7.7.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up Common User Facility (with M/s IOCL & HPCL) for storage of Petroleum, Oil & Lubricants (POL) of capacity 54742 KL (22 nos of tanks) by M/s BPCL in an area of 65.37 acres at Sadashibpur (Meramundali), Dhenkanal (Odisha).

The details of products and capacity is as under:

Tank No.	Tank Type	Product	Class of Product	Dia (m)	Height/ Length (m)	Gross Capacity (KL)
TK -1	A/G IFR	MS	A	24	15	6782

Tank No.	Tank Type	Product	Class of Product	Dia (m)	Height/ Length (m)	Gross Capacity (KL)
TK -2	A/G IFR	MS	A	24	15	6782
TK -3	A/G IFR	MS	A	24	15	6782
TK -4	A/G Cone Roof	HSD	B	29	13.5	8917
TK -5	A/G Cone Roof	HSD	B	29	13.5	8917
TK -6	A/G Cone Roof	HSD	B	29	13.5	8917
TK -7	A/G IFR	ETHANOL	A	9	13.5	800
TK -8	A/G IFR	ETHANOL	A	9	13.5	800
TK -9	A/G IFR	ETHANOL	A	9	13.5	800
TK -10	A/G Cone Roof	Bio-Diesel	Excluded	12.6	11	1790
TK -11	A/G Cone Roof	Bio-Diesel	Excluded	12.6	11	1790
TK -12	Under Ground	Bio-Diesel		4	17	200
TK -13	Under Ground	ETHANOL	A	4	17	200
TK -14	Under Ground	HSD	B	2.75	8.25	50
TK -15	Under Ground	MS	A	2.75	8.25	50
TK -16	Under Ground	HSD	B	2	6.75	15
TK -21	A/G Cone Roof	Transmix	A	9	10	575
TK -22	A/G Cone Roof	Transmix	A	9	10	575
Total						**54742**

The project/activity is covered under category B of item 6(b) 'Isolated storage & handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules1989 amended 2000)' of schedule to the Environment Impact Assessment (EIA) Notification, 2006. However, due to absence of SEAC in the State, the project requires appraisal by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The ToR has been issued by SEAC Odisha vide letter dated 23rd August 2017. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 14th November 2018. The main issues raised during the public hearing are related to indirect /direct employment, land compensation.

Total land area is 264539.32 m^2. Industry will develop greenbelt in an area of 33.04% i.e., 87399.37 m2 out of total area of the project. The estimated project cost is Rs.270.01 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs.98 lakhs and the Recurring cost (operation and maintenance) will be about Rs.15 lakhs per annum.

Total fresh water requirement is estimated to be 10 cum/day to be met from the borewell. No industrial effluent will be generated at the project site. Sewage generated from domestic sources will be sent to septic tank followed by soak pit. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

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.

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board as required.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Total fresh water requirement shall not exceed 10 m^3/day proposed to be met from borewell. Prior permission shall be obtained from the concerned regulatory authority/CGWA.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *During construction phase, air pollution and the solid waste management aspects need to be properly addressed ensuring compliance of the Construction and Demolition Waste Management Rules, 2016.*
- *The green belt of 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 and in consultation with the State Forest Department.*
- *At least 0.75% 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.*
- *Regular monitoring of VOC and HC in the work zone area in the plant premises should be carried out and data to be submitted to Ministry's Regional Office, CPCB and State Pollution Control Board. Quarterly monitoring for fugitive emissions should be carried out as per the guidelines of CPCB and reports submitted to Ministry's Regional Office.*
- *Necessary approvals from Chief Controller of Explosives, as applicable, shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and implemented.*
- *Emergency Response Plan should be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill should be conducted once a month.*
- *Additional safety measures should be taken by using remote operated shut off valve, Double Block &Bleed valve (DBB), impervious dyke wall and un-bonded flexible roof drain pipe, if applicable.*
- *Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.*
- *Road tankers should be equipped to the standard specified in national regulations reputable code. Vehicles should be mobilized during transfer operations and equipped to prevent untimely movement. Loading/unloading bays should be protected against impact. Fire-resistant coatings shall be provided to tanks/vessels.*
- *High and low-level alarms shall be fitted to plant storage tanks which can detect overfilling. However, proper supervision shall be done every time.*
- *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.*
- *Water sprinkling has to be undertaken on regular basis to control the polluting particles.*
- *Approach road shall be made pucca to minimize generation of suspended dust.*
- *The energy sources for lighting purposes shall preferably be LED based.*
- *Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.*
- *Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and guidelines prepared by OISD, DGMS and Govt. of India. Mock drill should be*

conducted once in a month. onsite and off-site Disaster Management Plan shall be implemented.

- *Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.*
- *High and low-level alarms shall be fitted to plant storage tanks which can detect overfilling. However, proper supervision shall be done every time.*
- *Unit should carry out safety audit and report submitted to the Regional Office. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.*
- *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

2.8 Any Other

Agenda No.2.8.1

Expansion of Existing Distillery (60 KLPD to 150 KLPD) at Village Alaganchi, Taluka Nanjangud, District Mysore (Karnataka) by M/s Bannari Amman Sugars Limited - Amendment in EC

[IA/KA/IND2/54195/2013, J-11011/71/2013-IA II(I)]

2.8.1.1 The proposal is for amendment in the environmental clearance granted by the Ministry vide letter dated 8th January, 2018 to the project 'Expansion of Existing distillery capacity from 60 KLPD to 150 KLPD' located at Alaganchi village, Nanjangud Taluk, District Mysore (Karnataka) in favour of M/s Bannari Amman Sugars Ltd.

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

No.	Para of EC	Details as per EC	To be revised & read as	Justification /reasons
1	Page No.1 - Para No.5	Existing unit has **23.4 TPH** spent wash/coal fired boiler. Bag filter with a stack of height of 58 M is installed to control the particulate emissions within the statutory limit of 150 mg/NM3. Spent wash coal fired boiler **of 23.4 TPH** will be installed to cater to the proposed expansion.	A new Boiler of **46.8 TPH** with Spent Wash / Bagasse / Coal fired will be installed for the proposed expansion. ESP with a stack height of 74 M is installed to control the particulate emissions within the statutory limit of 150 mg/NM3. The existing 23.4 TPH Spent Wash/ Coal Fired boiler will be dismantled	Second Generation Spent wash Incineration Boilers have come with better efficiency and user friendly operation. Our existing Boiler of 23.4 TPH is of First Generation and it is about 10 years old. In order to avail the new technology and also to have better operational performance, environmental perspective, we seek amendment to install Single Boiler of 46.8 T/H instead of Two Boilers of 23.4 T/H. Proposed Boiler (46.8 TPH) is having the fuel option of Spent wash, Coal & Bagasse, whereas

			after the installation of 46.8 TPH boiler.	the existing boiler of 23.4 TPH is having the fuel option of Spent wash & coal only.
2	Page No. 02 - Para No. 06	Details of Boilers and pollution control measures are as under **(Details given below)****	Details of Boilers and pollution control measures are as under **Details given below -($\$\$$)**	In order to avail the new technology and also to have better operational performance, environmental perspective, we seek amendment to install Single Boiler of 46.8 T/H instead of Two Boilers of 23.4 T/H with Concentrated Spent Wash, Coal & Bagasse fuel options.
3	Page No. 03, Para No. 11 (f)	Industrial /trade effluent shall be segregated into high COD/TDS and low COD/TDS effluent streams as applicable. 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 and then passed through RO system.	Industrial /trade effluent shall be segregated into high COD/TDS and low COD/TDS effluent streams as applicable. High TDS/COD shall be passed through MEE. Low TDS effluent stream shall be treated in ETP and then passed through RO system.	We have submitted our Distillery Expansion proposal with MEE Treatment facility only for High TDS/COD effluent (Spent wash). In Sl. No. 05, Para 01, of EC condition also, the same condition is laid. The Karnataka State Pollution Control Board also informed in the Consent to Establish (Expansion), to get clarification for this condition vide their order No.CTE-307490, dated 27.08.2018.

02. Page No. 02 - Para No. 06(**Details as per the EC:**)**
Details of Boilers and pollution control measures are as under

S.No	**Source of flue gases**	**Fuel Consumption**	**Flue gas flow rate-Nm^3/h**	**Stack Height (m)**	**Control measure**
1	Existing Boiler, 23.4 T/H in 60 KLPD Distillery unit	1.CSW (Concentrated Spent wash), 148 TPD 2.Coal (As support fuel),45 TPD	66200	58	Bag Filter & Stack
2	Proposed Additional	1.CSW (Concentrated Spent wash), 361 TPD	66200	58	Bag Filter & Stack

	Boiler, 23.4 T/H for 150 KLPD Distillery Unit	2.Coal (As support fuel),124 TPD			
		3. Bagasse(as alternative to coal), 236 TPD			

To be revised as ($$$)

S.No	Source of flue gases	Fuel Consumption	Flue gas flow rate- Nm^3/h	Stack Height (m)	Control measure
1	46.8 TPH	1.CSW (Concentrated Spent wash), 361 TPD	120000	74	Electro Static Precipitator
		2.Coal (As support fuel),124 TPD			
		3. Bagasse (as alternative coal), 236 TPD			

2.8.1.3 *The EAC, after deliberations and especially in view of no change in production capacity or scope of the project, recommended for amendment in the EC dated 8th January, 2018, with the details as under:-*

- *One boiler of capacity 46.8 TPH shall be installed in place of two boilers of capacity 23.4 TPH each.*
- *Electro Static Precipitator shall be installed with the boiler of 46.8 TPH in place of bag filter proposed earlier.*
- *Para 11(f) to be read as*
  '….High TDS/COD effluent shall be passed through MEE followed by incineration. Low TDS effluent stream shall be treated in ETP and then passed through RO system.'

Agenda No.2.8.2

BS-VI Fuel Quality Up-gradation, Capacity Expansion of PX/PTA, NCU, MEG, HDPE, PP Units & New Catalyst Manufacturing Unit by M/s Indian Oil Corporation Limited at Panipat Refinery & Petro-Chemical Complex (PRPC) - Amendment in EC

[IA/HR/IND2/56442/2016, J-11011/177/2016- IA II(I)]

2.8.2.1 The proposal is for amendment in environmental clearance granted by the Ministry vide letter dated 26th March, 2018 in favor of M/s Indian Oil Corporation Limited to the project 'BS VI fuel quality up gradation and expansion of PX/PTA plant at Panipat Refinery & Petrochemical Complex' located at Panipat (Haryana).

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

S. No.	Para of EC	Details as per EC	To be revised/read as	Justification /Reasons
1	Point no. 11 (xvi) Page no. 3 of EC	"At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local	As per Office Memorandum from MoEF&CC dated 1st May, 2018 regarding Corporate Environment	BS VI Fuel Quality Up-gradation Project is under construction, while construction work for PX-PTA

		needs and action plan with financial and physical break up/details shall be prepared and submitted to Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner"	Responsibility (CER) it has been mentioned that "The fund allocation for the CER shall be deliberated in EAC or SEAC or DEAC as the case may be with due diligence subject to maximum percentage as prescribed	capacity expansion has not be started. In view of OM dated 01.05.18 cost towards ESC (Enterprise Social Commitment) to be amended as CER (Corporate Environment Responsibility)

2.8.2.3 *The EAC, after detailed deliberations, reiterated its earlier recommendation for allocation of at least 2.5% of the project cost towards Enterprise Social Commitment* (*ESC), and stipulated in the environmental clearance dated* 26th March, 2018*. However, in view of the Ministry's OM dated 1st May, 2018 regarding Corporate Environment Responsibility (CER), stipulating guidelines for fund allocation towards CER, the Committee suggested that the Ministry may take a view in this regard.*

Agenda No.2.8.3

Recovery of Styrene at Indian Oil Panipat Refinery & Petrochemical Complex at Panipat, Haryana by M/s Indian Oil Corporation Limited - Amendment in EC

[IA/IND/HR/23749/2014, J/11011/268/2014 IA II (I)]

2.8.3.1 The proposal is for amendment in the environmental clearance granted by the Ministry vide letter dated 22nd February, 2017 to the project "Recovery of Styrene and Synthetic Olefins Production from RFCC and DCU off gases (from Panipat Refinery) and its integration with Naphtha Cracker Unit and Mounded Bullet Storage for C4 Mix at Indian Oil Panipat Refinery & Petrochemical Complex' located at Panipat, Haryana in favor of Panipat Refinery of M/s Indian Oil Corporation Limited.

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

S. No.	Para of EC	Details as per EC	To be revised/read as	Justification /Reasons

1	Specific condition no. 7 A (xx) on Page no.4	"At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical break up/details shall be prepared and submitted to Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner"	As per Office Memorandum from MoEF&CC dated 01.05.2018 regarding Corporate Environment Responsibility (CER)" it has been mentioned that "The fund allocation for the CER shall be deliberated in EAC or SEAC or DEAC as the case may be with due diligence subject to maximum percentage as prescribed	Construction work for ERU and SRU has not been started till date. In view of OM dated 01.05.18 cost towards ESC (Enterprise Social Commitment) to be amended as CER (Corporate Environment Responsibility)

2.8.3.3 *The EAC, after detailed deliberations, reiterated its earlier recommendation for allocation of at least 2.5% of the project cost towards Enterprise Social Commitment* (*ESC), and stipulated in the environmental clearance dated* 22nd February, 2017*. However, in view of the Ministry's OM dated 1st May, 2018 regarding Corporate Environment Responsibility (CER), stipulating guidelines for fund allocation towards CER, the Committee suggested that the Ministry may take a view in this regard.*

Agenda No.2.8.4

Expansion of exploration and production of Coal Bed Methane Gas in Raniganj (South) CBM Block, West Bengal by M/s Great Eastern Energy Corporation Ltd - Extension of validity of EC

[IA/WB/IND2/85920/2011, J-11011/352/(2010)-IA II (I)]

2.8.4.1 The proposal is for extension of validity of the environmental clearance granted by the Ministry vide letter dated 24thNovember, 2011 to the project 'Expansion of Exploration and Production of Coal Bed Methane gas in Raniganj (South) CBM Block' located at Burdwan; Bankura and Purulia District (West Bengal) in favour of M/s Great Eastern Energy Corporation Limited.

2.8.4.2 The project proponent has requested for extension of validity of the EC with the details are as under:

S. No.	Para of EC	Details as per the EC	To be revised/ read as	Justification/ reasons
1	2.0	The Ministry of Environment and Forest has examined your application. It is noted that that the Proposal is for expansion of Exploration and Production of Coal Bed Methane Gas by drilling	Validity of Environmental Clearance extended for three years with effect from 25th November, 2018.	Due to various operational issues, GEECL could drill only 56 numbers of wells during validity period out of permitted 200 No

		additional 200 Wells in Raniganj (South) CBM Block, West Bengal. 200 Production wells upto 1100 m depth will be drilled to produce Coal Bed Methane (CBM) by 2018.		of wells. Now GEECL is planning to drill remaining (144) wells

2.8.4.3 *The EAC, after deliberations, recommended for extension of validity of the EC dated 24th November, 2011 for a period of three years, i.e. till 24th November, 2021.*

Agenda No. 2.8.5

Bulk Drug Manufacturing Unit (19.70 MTPM) at plot No. 29 P (I), Raichur growth centre Industrial area, Village Chicksugar, District Raichur (Karnataka) by M/s J K Chem Labs Private Limited - Extension of validity of EC

[IA/KA/IND2/87086/2014, J-11011/373/2011-IA II (I)]

2.8.5.1 During deliberations, the EAC noted the following:

The proposal is for extension of validity of environmental clearance granted by the Ministry vide letter dated 7th January, 2014 to the project 'Bulk Drug Manufacturing Unit (19.70 MTPM)' at plot No. 29 P(I), Raichur growth centre Industrial area, Village Chicksugar, District Raichur (Karnataka) in favour of M/s J K Chem Labs Private Limited.

2.8.5.2 The proponent has now requested for extension of validity of the EC for a period of five years to execute the project.

2.8.5.3 *The Committee, during deliberations, noted that the EC dated 7th January, 2014 presently has validity till 7th January, 2021, and there is no requirement of extension of the validity now, and accordingly inclined to accept the proposal.*

Agenda No. 2.8.6

Bulk Drug manufacturing unit at S.No.544 to 546 village & Mandal Bikanoor, District-Nizamabad, Andhra Pradesh by M/s MSN Life Sciences Private Limited Unit-III - For amendment in EC.

[IA/TG/IND2/59668/2014, J-11011/208/2011 - IA II (I)]

2.8.6.1 During deliberations, the EAC noted the following:

The proposal is for amendment in the environmental clearance granted by the Ministry vide letter dated 7th January, 2014 to the project 'Bulk Drugs (APIs) manufacturing Unit' at Sy. Nos.:

544, 545, 546, 547, 548, 549P, 552, 553, 554 and 574P, Bhiknoor (Village & Mandal), Kamareddy District (formerly Nizamabad District) (Telangana) in favour M/s Virupaksha Organics Private Limited, which was later transferred on 29th November, 2017 in favour of M/s MSN Life Sciences Private Limited.

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

S. No.	Para of EC	Details as per the EC	To be revised / read as	Justification / reasons
1.	**Page No. 1** - In Subject Line No.1, - Line 2 of 2nd paragraph 2	Sy. No. 544 to 546	Sy. Nos.: 544 to 546 & additional Sy. Nos. 547, 548, 549P, 552, 553, 554 and 574P	Addition of 35 acres of land to the existing 30 acres totaling to 65 acres with Sy. Nos. as given.
2.	**Page No. 1** - Line 4 of 2nd paragraph 2	Total Plot area is 30 acres	Total plot area is 65 acres	
3.	**Page No. 4** – Line 1 of Specific Condition No. (xx)	As proposed, greenbelt shall be developed in 9.9 acres out of 30 acres of total land	Greenbelt shall be developed in 35 acres out of 65 acres of total land	
4.	**Page No.2** – Line 3rd of paragraph no. 3 **Page No. 4** – Line 1 of Specific Condition No. (ix)	Total Fresh water requirement from ground water source will be 114 m^3/day	Total Fresh water requirement from ground water source will be 256 m^3/day	Due to addition of coal fired boilers and additional land, there will be increase in water consumption. Originally planned 2 X 4 TPH, 2 TPH (Total 10 TPH) coal fired boilers will be changing to 2 X 4 TPH and 2 X 14 TPH. Out of which 1 X 14 TPH & 1 X 4 TPH will be standby. 2 TPH coal fired boiler will be

				dropped after amendment.

2.8.6.3 *The Committee, after detailed deliberations, found the proposal not admissible as per the extant provisions of the EIA Notification, 2006.*

Agenda No.2.8.7

Addition of Carbon Black Manufacturing facility in existing plant at Village Paddhar, Taluka Bhuj, District Kuchchh by M/s Balkrishna Industries Limited - Amendment in EC

[IA/GJ/IND2/63420/2017, IA-J-11011/162/2017-IA-II(I)]

2.8.7.1 The proposal is for amendment in the environmental clearance granted by the Ministry vide letter dated 8th January, 2018 in favour of M/s Balkrishna Industries Limited to the project 'Addition of Carbon Black Manufacturing facility in the existing plant' located at Village Paddhar Taluka Bhuj District Kutch (Gujarat).

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

S. No	Para of EC	Details as per the EC	To be revised / read as	Justification / Reasons
1	2 & 13	The Ministry of Environment, Forest & Climate Change has examined the proposal for Environment Clearance to the project "Carbon Black Manufacturing Unit" of Capacity 11,500 TPM in a total area 12,12,560 m^2 at Plot No 470,544/1,545/1, 555 at village Paddhar, Taluka Bhuj, District Kutch (Gujarat)	The Ministry of Environment, Forest & Climate Change has examined the proposal for Environment Clearance to the project "Carbon Black Manufacturing Unit" of Capacity 11,500 TPM in a total area 12,12,560 m^2 at Plot No 470, 471, 539/1, 539/2, 541, 543, 544/P1, 547, 548/P1, 548/P2, 551, 552, 553, 555, 556/P1, 556/P2, 558, 559, 560/P1, 560/P2, 560/P3, 560/P4, 561/P1, 562, 563/1, 563/2, 564, 566, 567/P1/P2, 567/P1/P3, 567/P2, 568/P1, 568/P2, 568/P3, 741/1/P28, 540/P1, 542/P1, 542/P2, 545/P1, 545/P2, 546, 554, 567/P1/P1, 567/P1/P1/P1, 741/P3, 544/P2 & 565 at village Paddhar, Taluka Bhuj, District Kutch (Gujarat)	In reference to agenda no 41.4.2.3 of MOM of 41st EAC (Industry -2) meeting containing note" the EAC during deliberation asked for verification of survey Nos from the concerned regulatory authority. The proposal was deferred for the needful on the above line" In this context we submitted the certificate issued by Talati (Paddhar Gram Panchayat) containing survey nos of land belong to BIL and part of said project.
2	3	Total Land area is 12,12,560 m^2. Industry has already	Total plot area is 12, 12,560 m^2, project proponent intends to develop greenbelt in an area of 4,00,144 m^2,	We had developed area 3, 34,727 m^2 (27%) till November 2017 and committed

		developed greenbelt in an area of 4,00,144m^2, thus covering 33 % of the total project area.	equivalent to 33% of the total project area.	that we will develop the remaining green belt area of 69,420 m^2 (6%) in next monsoon after completing of construction activities.
3	13-s	Raw materials storage should not exceed 3 days at any point of time	Raw Material storage should not exceed 45 days at any point of time	1. Carbon Black is a continuous process plant. 2. Inventory of 3 days would be totally inadequate 3. CBFS requirement – 21,500 MT/Month 4. Mostly imported from USA – Transit time 45 days. 5. The lead time from placement of Purchase Order till delivery is minimum 60 days 6. Stoppage of operation due to unavailability of CBFS may create recurring hazards. 7. Hence onsite RM storage permission for 45 days may please be considered.

2.8.7.3 *The Committee, after detailed deliberations, recommended for amendment in environmental clearance 8th January, 2018, in the following manner:-*

- *In para 2 & 13, Plot No.470,544/1,545/1, 555 to be read as Plot No.470, 471, 539/1, 539/2, 541, 543, 544/P1, 547, 548/P1, 548/P2, 551, 552, 553, 555, 556/P1, 556/P2, 558, 559, 560/P1, 560/P2, 560/P3, 560/P4, 561/P1, 562, 563/1, 563/2, 564, 566, 567/P1/P2, 567/P1/P3, 567/P2, 568/P1, 568/P2, 568/P3, 741/1/P28, 540/P1, 542/P1, 542/P2, 545/P1, 545/P2, 546, 554, 567/P1/P1, 567/P1/P1/P1, 741/P3, 544/P2 & 565 at village Paddhar, Taluka Bhuj, District Kutch (Gujarat).*
- *Para 3 to be modified as:-*
  " ……. Greenbelt will be developed in an area of 4,00,144 sqm, covering 33% of the total project area".
- *Para 13 (s) to be read as:-*
  "In case of raw materials identified as the hazardous one under the MSIHC Rules, 1989, the statutory provisions contained therein shall continue to be followed. For the remaining raw materials, storage shall not exceed 30 days at any point of time'.

Agenda No.2.8.8

Technical Pesticide Intermediate and Specialty Chemicals Manufacturing Plant at Plot No. 905/1, Jhagadia Industrial Estate Jhagadia, District Bharuch (Gujarat) by M/s Anupam Rasayan India Ltd (Unit-3) - Amendment in EC.

[IA/GJ/IND2/26815/2013, J-11011/22/2014-IA-II(I)]

2.8.8.1 The proposal is for amendment in the environmental clearance granted by the Ministry vide letter dated 3rd July, 2015 to the project 'Pesticides, Pesticide specific intermediates and Specialty Chemicals Manufacturing Plant' at Plot No.905/1, Jhagadia IndustrialEstate, Jhagadia, District Bharuch (Gujarat) in favour of M/s Anupam Rasayan India Ltd (Unit-3).

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

S. No.	Point of EC New Delhi	Details as per the EC	To be revised	Justification/Reasons
1.	Condition No. 02	List of Products	We want to add 81 Nos. of products in list of products. And production capacity will be remain same as per existing EC.	As per market demand, we want add these products. Please refer Annexure-1.
2.	A. Specific Condition - Condition No. ii	ESP shall be provided for coal/briquette fired boiler to control particulate matter. Continuous air emission monitoring system to be installed from the stack. The gaseous emissions should be dispersed through stack of adequate height as per CPCB/GPCB guidelines.	Company want to add 15 MT coal fired Boiler in place of 10 MT Coal fired Boiler and 1 additional boiler 15 MT/Hr and 4 No. of Thermopack – 500 U.	For justification of 15 MT Boiler, we would like to explain that instead of 30.0 MT total we will install first 15 MT Boiler first and then on additional requirement another 15 MT Boiler & third system of 15 MT we want to keep as stand- By. Water input quantity may increase but without increase in Waste Water qty. Please refer Annexure-2.
3.	A. Specific Condition - Condition No. viii	The gaseous emission from DG Set shall be dispersed through adequate height as per CPCB Standard. Acoustic	Company will dismantle existing old DG Sets - 500 KVA x 2 Nos. Companies want to Install total of 3 nos. of DG Set and capacity of	For justifications of Multiple Units of DG- Sets , we would like to explain that single unit when runs on partial load then we waste more fuel, more energy. But if we install multiple Units and run as per requirement we optimize the

		enclosure shall be provided to the DG Set to mitigate the noise pollution.	DG Set-1: 1250 KVA DG Set-2: 1000 KVA DG Set-3: 750 KVA.	consumption of Fuel and thus shaving Energy to a great extent.
4.	A. Specific Condition - Condition No. xi	Total Water consumption from GIDC water supply shall not exceed 115 m^3/Day and prior permission shall be obtained from the competent authority.	Total water consumption from GIDC water supply shall 300 m^3/Day after addition of new Coal fired boilers. Water consumption will increase by 15 m^3/Day.	Due to addition of new coal fired boilers = 15 MT/Hr, Water consumption will increase by 15 m^3/Day. So water consumption (285 m^3/Dayto300 m^3/Day**)**. Waste water will remain same as per existing EC. i.e (202 KL/Day)
5.	A. Specific Condition - Condition No. xii.	Industrial effluent generation shall not exceed 181 m^3/Day. Effluent shall be segregated into High COD /High TDS and low COD/TDS effluent stream. High COD/TDS effluent stream shall be evaporated in MEE. Low COD/TDS effluent stream shall be treated in ETP. Treated effluent, condensate and recover water shall be treated and recycled/reused within factory premises.	Disposal of treated effluent will be sent to NCT-Jhagadia New Pipeline lead to Marine discharge in to deep sea at Kantyajal.	Company has obtained membership of M/s Narmada Clean Tech (NCT) with booked Load of 202.0 KLD , to discharge treated effluent into deep sea through new pipeline. Moreover, NCT Jhagadia as well as NCT New pipeline now is under operational mode as Gujarat Pollution Control Board- (GPCB) Gandhinagar has rewarded NCT with valid Consolidated Consent & Authorization as AWH- 83798 dated 27/01/2017 – Validity up to 16/05/2021. Membership of NCT is attached as Annexure -3.
6.	A. Specific Condition - Condition No. xvii	The company shall obtain Authorization for collection, Storage and disposal of hazardous waste under the Hazardous waste	Quantity of Hazardous waste will not increase due to addition of new products but no. of by-products and quantity will increase which are incorporated in	No. of by-products and quantity will increase which are incorporated in hazardous waste as per Hazardous waste Rules-2016. Please refer Annexure-4.

		(Management, Handling and Trans-boundary Movement) Rules, 2008 and amended as on date for management of Hazardous Wastes and prior permission from GPCB shall be obtained for disposal of solid/hazardous waste in the TSDF. Measures shall be taken for firefighting facilities in case of emergency. Membership of TSDF for hazardous waste shall be obtained.	hazardous waste as per Hazardous waste Rules-2016.	

1.1 ANNEXURE – 1

1.2 REVISED LIST OF PRODUCTS ALONG WITH PRODUCTION CAPACITY

S. No.	Name of Product	CAS NO.	Existing Capacity (MT/Month)	Additional Capacity (MT/Month)	Total after Proposed Expansion (MT/Month)
Group - 1 (Insecticides) - 450 MT/Month					
A. Intermediates					
1	Meta Phenoxy Benzaldehyde (MPBAD)	52315 - 06 - 7	**450**	**0**	**450**
2	Cypermethric Acid Chloride (CMAC)	52314 - 67 - 7			
3	Lambda Cyhalothric Acid Chloride (TFP Acid Chloride)	72748-35-7			
4	Meta Phenoxy Benzyl Alcohol (MPBAL)	13826-35-2			
5	2-Chloro 5-Chloromethyl Pyridine (CCMP)	70258-18-3			
B. Synthetic Pyrethroid					
6	Cypermethrin (T) & Beta, Zeta, Theta etc Isomers (T)	71697-59-1			
7	Alphacypermethrin (T)	67375-30-8			

8	Deltamethrin (T)	52918-63-5			
9	Permethrin (T)	52645-53-1			
10	Lambda Cyhalothrin (T)	91465-08-6			
11	Bifenthrin (T)	82657-04-3			
12	Tefluthrin (T)	79538-32-2			
13	Transfluthrin (T)	118712-89-3			
14	Cyfluthrin & Beta Isomers (T)	68359-37-5			
15	Cyphenothrin (T) & its [1R-Trans-isomer]	39515-40-7			
16	Dimefluthrin (T)	271241-14-6			
17	Fenpropathrin (T)	39515-41-8			
18	Cycloprothrin (T)	63935-38-6			
19	Flumethrin (T)	69770-45-2			
20	Acrinathrin (T)	101007-06-1			
21	Etofenprox (T)	80844-07-01			
22	Flucythrinate (T)	70124-77-5			
C. Neo Nicotinoid/ Thiazole / Nitro Guanidine					
23	Imidacloprid (T)	138261-41-3			
24	Acetamiprid (T)	135410-20-7			
D. Carbamate / Phenyl Ether /Benzoyl Phenyl Urea/Phenyl Pyrazole/ Oxadiazine					
25	Fenoxycarb (T)	72490-01-8			
26	Pyriproxifen (T)	95737-68-1			
Total Production of Groups - 1 (Insecticides)			**450**	**0**	**450**
Group - 2 (Herbicides) - 600 MT/Month					
A. Amide / Nitro phenyl Ether Herbicides					
27	Fomesafen (T)	72178-02-0	**600**	**0**	**600**
28	Halosafen (T)	77227-69-1			
29	Napropamide (T)	15299-99-7			
30	Quinclorac	84087-			

		01-4			
31	Bromobutide	74712-19-9			
B. Anilide / Pyridine / Aryloxyphenoxypropionic Herbicides					
32	Metamifop (T)	256412-89-2			
33	Picolinafen (T)	137641-05-5			
34	Chlorazifop (T) & Chlorazifop Propargyl (T)	60074-25-1 & 72880-52-5			
35	Clodinafop & Clodinafop Propargyl (T)	114420-56-3 & 105512-06-9			
36	Cyhalofop & Cyhalofop Butyl (T)	122008-78-0 & 122008-85-9			
37	Diclofop (T) & Diclofop Methyl (T)	40843-25-2 & 51338-27-3			
38	Fenoxaprop (T) & Fenoxaprop P Ethyl (T)	95617-09-7& 71283-80-2			
39	Fluazifop (T) & Fluazifop P Butyl	69335-91-7 & 79241-46-6			
40	Haloxyfop (T) & Haloxyfop Methyl	69806-34-4 & 72619-32-0			
41	Quizalofop (T) & Quizalofop Ethyl (T)	76578-12-6 & 76578-14-8			
42	Cloquintocet Mexyl (T)	99607-70-2			
43	Quizalofop-P-Tefuryl	119738-06-6			
44	Haloxyfop Ethoxy Ethyl (Etotyl)	87237-48-7			
45	Flufenacet	142459-58-3			
46	Diflufenican	83164-33-4			
47	Cloransulam-Methyl	220899-03-6			

C. Phenyl Ether /Phenoxy Carboxylic Acid / Pyridine / Nitro Phenyl Ether					
48	Acifluorfen (T)	50594-66-6			
49	Aclonifen (T)	74070-46-5			
50	Chlomethoxyfen (T)	32861-85-1			
51	Fluoroglycofen (T)	77501-90-7			
52	Lactofen (T)	77501-63-4			
53	Oxyfluorfen (T)	42874-03-3			
54	Dicamba (T)	1918-00-9			
55	Fluoroxypyr-Meptyl	81406-37-3			
56	Picloram	1918-02-1			
57	Triclopyr – Butotyl	64700-56-7			
D. Triazinone Herbicides I D / Cyclohexane Oxime					
58	Metamitron (T)	41394-05-2			
59	Metribuzine (T)	21087-64-9			
60	Clethodine (T)	99129-21-2			
61	Imazamethabenz	100728-84-5			
62	Imazamox	114311-32-9			
63	Imazapyr	81334-34-1			
64	Imazethapyr	81335-77-5			
65	Benoxacor	93730-04-2			
66	Phenmedipham	13684-63-4			
67	Desmedipham	13684-56-5			
Total Production of Group - 2 (Herbicides)			**600**	**0**	**600**
Group – 3 (Fungicides) - 500 MT/Month					
A. Conazole Fungicide					
68	1,2,4 Triazole	288-88-0	**500**	**0**	**500**
69	3- Methyl 1,2,4 Triazole	7170-01-6			
70	Difenoconazole (T)	119446-68-3			

71	Azaconazole (T)	60207-31-0			
72	Bromuconazole (T)	116255-48-2			
73	Epoxiconazole (T)	133855-98-8			
74	Etazonazole (T)	84625-61-6			
75	Hexaconazole (T)	79983-71-4			
76	Penconazole (T)	66246-88-6			
77	Propiconazole (T)	60207-90-1			
78	Tebuconazole (T)	107534-96-3			
79	Fenfuconzole (T)	114369-43-6			
80	Ipconzole (T)	125225-28-7			
81	Metconzole (T)	125116-23-6			
82	Tetraconazole (T)	112281-77-3			
83	Cyproconazole (T)	94361-06-5			
84	Prothioconazole (T)	178928-70-6			
85	Fluquinconazole (T)	136426-54-5			
86	Myclobutanil (T)	88671-89-0			
87	Imazalil (T)	35554-44-0			
88	Triadimenol (T)	55219-65-3			
89	Triadimefol (T)	43121-43-3			
90	Triticonazole (T)	131983-72-7			
91	Etoxazole	153233-91-1			
92	Metrafenone	220899-03-6			
B.	**Strobilurin / Methoxyacrylate / Carbanilate / Amide / Fungicides**				
93	Dimoxystrobin (T)	149961-52-4			
94	Kresoxim Methyl (T)	143390-89-0			
95	Trifloxystrobin (T)	141517-21-7			
96	Flufenoxy Strobin (T)	918162-			

		02-4			
97	Picoxystrobin (T)	117428-22-5			
98	Triclopyricarb (T)	902760-40-1			
99	Azoxy Strobin (T)	131860-33-8			
100	Metominostrobin (T)	133408-50-1			
101	Fluoxastrobin (T)	361377-29-9			
102	Orysastrobin (T)	248593-16-0			
103	Pyraclostrobin (T)	175013-18-0			
104	Fenoxanil (T)	115852-48-7			
105	Cymoxanil (T)	57966-95-7			
106	Flutolanil	66332-96-5			
C. Acylamino / Anilide / Aromatic Fungicides / Quinoline / Dicarboxymale / Oxazole					
107	Metalaxyl (T)	57837-19-1			
108	Benalaxyl (T)	71626-11-4			
109	Clorothalanil (T)	1897-45-6			
110	Fluazinam (T)	79622-59-6			
111	Quinoxyfen (T)	124495-18-7			
112	Famoxadone (T)	131807-57-3			
113	Paclobutrazol	76738-62-0			
Total Production of Group - 3 (Fungicides)			**500**	**0**	**500**
Group – 4 AMINO DIPHENYL ETHER / PHENOXY COMPOUNDS - 300 MT/Month					
114	2-Amino-2', 4'-Dichloro Diphenyl Ether (Y)	56966-48-4	**300**	**0**	**300**
115	2-Amino - 2'- Methyl Diphenyl Ether (Red Ether)	3840-18-4			
116	Amino Resorcine Di Ortho Cresyl Ether	73637-04-4			
117	2-Amino Di Phenyl Ether (Ortho Amino Di Phenyl Ether/2 - PA)	2688-84-8			
118	4-Amino Di Phenyl Ether	139-59-3			
119	4-Amino 4'- Methyl Di Phenyl Ether (4-PP)	41295-20-9			
120	2- Amino 2', 4, 4'- Tri Chloro Di	56966-			

	Phenyl Ether (Benzinamide, 5-Chloro-2-2 (2,4-Dichloro Phenoxy) / Tade)	52-0			
121	4- Amino 2', 4' Di Chloro Di Phenyl Ether (OD Amino)	14861-17-7			
122	4, 4'- Di Amino Di Phenyl Ether	101-80-4			
123	3, 4' - Di Amino Di Phenyl Ether	2657-87-6			
124	2- Amino -4- Chloro Di Phenyl Ether (PHD Ether)	93-67-4			
125	4- Amino -2, 4' -Di Chloro Di Phenyl Ether (GE/Aminophene)	14861-17-7			
126	2- Amino - 4' - Chloro Di Phenyl Ether	93-67-4			
127	2- Amino -4'- Chloro -4 - Trifluoromethyl Di Phenyl Ether (ACTM)	349-20-2			
128	4 - Amino - 4' - Chloro Di Phenyl Ether (PPNA)	101-79-1			
129	1, 2- Bis (2- Amino Phenoxy) Ethane	85233-19-8			
130	1, 2-Bis (4-Amino Phenoxy) Ethane	6052-10-4			
131	4-Amino-4'-Nitro Diphenyl Ether	6149-33-3			
132	2-Amino-2',4 -Dichloro Diphenyl Ether	56966-48-4			
133	2-Amino-4,4'-Dichloro Diphenyl Ether (PD Amino)	121-27-7			
134	2-(4-Nitro Phenoxy) Ethanol	16365-27-8			
135	1,4-Bis (4-Amino Phenoxy) Benzene	3491-12-1			
136	1,3-Bis (4-Amino Phenoxy) Benzene	2479-46-1			
137	1,3-Bis (3-Amino Phenoxy) Benzene	10526-07-5			
138	1,2-Bis (2-Methyl Phenoxy) Ethane	53223-37-3			
139	1,2-Bis (3-Methyl Phenoxy) Ethane	54914-85-1			
140	1,2-Bis (4-Methyl Phenoxy) Ethane	98155-65-8			
141	5-Amino-2,2',3-Trichloro-4-Nitro-Diphenyl Ether	118353-04-1			
142	2-Amino -4,4'-Dichloro Diphenyl Ether-2'-Sulfonic Acid / Sodium Salt	42293-27-6			
143	4,4'-Dihydroxy Diphenyl Ether	1965-09-9			
144	2-Hydroxy-4,4'-Dichloro Diphenyl Ether	3380-30-1			
145	2-Hydroxy-2,4,4'-Trichloro	3380-34-			

	Diphenyl Ether	5			
146	4-Hydroxy-2',4'-Dichloro Diphenyl Ether	40843-73-0			
147	2-Chloro-4-(4-Chlorophenoxy) Acetophenone/4-Acetyl-3,4'-Dichloro Diphenyl Ether	119851-28-4			
148	2-Acetyl-2',4,4'-Trichloro Diphenyl Ether	211125-94-9			
149	4,4' Dimethyl Diphenyl Ether	1579-40-4			
150	4,4'-Dicarboxy Diphenyl Ether	2215-89-6			
151	Diphenyl Ether	101-84-8			
152	4-Hydroxy Diphenyl Ether / 4-Phenoxy Phenol	831-82-3			
153	5 Chloro-6-(2,3 Dichloro Phenoxy)-2-Methyl thio -1H Benzimidazole /Triclabendazole	68786-66-3			
154	3,4'-Dimethyl Diphenyl Ether	51801-69-5			
155	3-Phenoxy Toluene	3586-14-9			
156	2,4-Bis[4-(2-ethylhexyloxy)-2-hydroxyphenyl]-6-(4-methoxyphenyl)-1,3,5-triazine/ Bemotrizinol.	187393-00-6			
157	2,2'-Methylenebis-[6-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)-phenol]	103597-45-1			
158	1-(4-tert-Butylphenyl)-3-(4-methoxyphenyl)-1,3-propanedione	70356-09-1 / 87075-14-7			
159	2-Hydroxy-4-methoxybenzophenone	131-57-7			
160	2-Ethylhexyl 4-methoxycinnamate	5466-77-3			
161	2-Cyano-3,3-diphenyl-2-propenoic acid 2-ethylhexyl ester	6197-30-4			
162	Bis(2-ethylhexyl) 4,4'-(6-(4-tert-butylcarbamoyl) anilino)-1,3,5-triazine-2,4-diyldiimino) dibenzoate	154702-15-5			
163	4,4',4"-(1,3,5-Triazine-2,4,6-triyltriimino)-tris-benzoic acid tris-(2-ethylhexyl) ester	88122-99-0			
164	2-(Bromomethyl)-2-[2-chloro-4-(4-chlorophenoxy)phenyl]-4-Methyl-1,3-Dioxolane	873012-43-2			
165	2-[3-(Trifluoromethyl) Phenoxy] Nicotinic Acid	36701-89-0			
Total Production of Group - 4			**300**	**0**	**300**

Group - 5 Specialty Phenols/ Specialty Chloro Phenol - 500 MT/Month					
166	2, 3-Dichloro Phenol	576-24-9	**500**	**0**	**500**
167	2, 5-Dichloro Phenol	583-78-8			
168	3, 4-Dichloro Phenol	95-77-2			
169	3, 5-Dichloro Phenol	591-35-5			
170	3-Mehtyl Phenol (m-Cresol)	108-39-4			
171	3- Chloro Phenol	108-43-0			
172	3-Nitro Phenol	554-84-7			
173	4-(2- Methoxy Ethyl) Phenol	56718-71-9			
174	Anisole	100-66-3			
175	2,3 Dichloro Anisole	1984-59-4			
176	2,5 Dichloro Anisole	1984-59-4			
177	4-Bromo-2-Chloro Phenol	3964-56-5			
178	4-Bromo 2, 5 Dichloro Phenol	1940-42-7			
179	4-Fluoro Phenol	371-41-5			
180	2-Fluoro Phenol	367-12-4			
181	O-Benzyl-p-Chloro Phenol	120-32-1			
182	O-Cyano Phenol	611-20-1			
183	P-Chloro-m-Cresol	59-50-7			
184	P-Chloro-m-Xylenol	88-04-0			
185	Dichloro-m-Xylenol	133-53-9			
186	Dichlorophene	97-23-4			
187	Bromochlorophene	15435-29-7			
188	5 - Chloro-2-Amino Phenol	28443-50-7			
189	4-Chloro-2-Amino Phenol	95-85-2			
190	4,6-Dichloro-2-Amino Phenol	527-62-8			
191	3, 4, 5 Tri Methoxy Toluene	6443-69-2			
192	4-Bromo Anisole	104-92-7			
193	Ortho Nitro Phenol	88-75-5			
194	Para Fluoro Anisole	459-60-9			
195	2- Chloro 4-Fluoro Phenol	1996-41-4			
196	Ortho Fluoro Phenol (2-Fluoro Phenol)	367-12-4			
197	Ortho Fluoro Anisole (2-Fluoro Anisole)	321-28-8			
198	4-Nitro-M-Cresol	2581-34-2			
199	3-Hydroxy Benzotrifluoride	98-17-9			
200	1-(4-chlorophenyl)-4,4-dimethyl-3-pentanone	66346-01-8			
201	Resorcinol / 1,3 Benzenediol / Meta Di Hydroxy Benzene	108-46-3			
202	Meta Amino Phenol	591-27-5			

Total Production of Group - 5			**500**	**0**	**500**
Group – 6 Amino Benzoic Esters / Aliphatic Esters - 250 MT/Month					
203	3-Amino-4-Methyl Benzoic Acid Methyl Ester	18595-18-1	**250**	**0**	**250**
204	3-Amino 4-Methyl Benzoic Acid Isopropyl Ester (AMBI)	21447-47-2			
205	3-Amino 4-Methyl Benzoic Acid (2' - Chloro Ethyl Ester) (AMBC)	2458-12-0			
206	5-Amino-2-Methyl Benzene Sulphonic Acid Phenyl Ester	1089339-15-0			
207	Benzene Sulphonic Acid 3-Amino Phenyl Ester	13653-18-4			
208	2-Cyano-3,4,5,6-Tetrachloro Benzoic Acid Methyl Ester	5358-06-5			
209	Benzene Sulphonic Acid 2-Methyl-5-Nitrophenyl Ester	85896-03-3			
210	Bisphenol - A (Amino Benzene Sulfonate)	68015-60-1			
211	2-Amino-3-Chloro Benzoic Acid Methyl Ester	77820-58-7			
212	3,6-Dichloro-2-Hydroxybenzoic Acid	3401-80-7			
213	1-Methyl-2-(Phenoxy Phenoxy) Ethanol	134227-44-4			
214	1-(4-Phenoxyphenoxy)-2-propanol	57650-78-9			
215	2,2,3,3-Tetramethyl Cyclopropane Carboxylic Acid	15641-58-4			
216	2,6 Difluoro α-Oxo Benzene Acetic Acid	132115-70-9			
217	2,6 Difluoro Benzonitrile	1897-52-5			
218	2,6 Difluoro Benzamide	18063-03-1			
219	2,6 Dichloro Benzonitrile	1194-65-6			
220	3,4-Difluoro Benzonitrile	64248-62-0			
221	2,6 Di Chloro Benzoxazole	3621-82-7			
222	Trimethyl Orthoformate	149-73-3			
223	Triethyl Orthoformate	122-51-0			
224	Sodium Methoxide	124-41-4			
225	Sodium Ethoxide	141-52-6			
226	2 – Amino 3-Chloro Benzoic Acid Methyl Ester	77820-58-7			
227	2- Nitro-5-Chloro-4-Methyl Benzoi Acid Iso Propyl Ester	1204518-43-3			
228	N-(2-Hydroxypropyl)-2-Picolylamine	68892-16-0			
Total Production of Group - 6			**250**	**0**	**250**
Group - 7 Amino Compounds / Hydrogenation Compounds - 200 MT/Month					

229	3-Amino-4-Chloro Benzoic Acid	2840-28-0	**200**	**0**	**200**
230	3-Amino-4-Methyl Benzoic Acid	2458-12-0			
231	3-Amino-4-Chloro Benzotrifluoride	121-50-6			
232	3-Amino Benzotrifluoride	98-16-8			
233	2-Chloro-1,4 - Phenylene Diamine (2,5 DCPPD)	615-66-7			
234	2, 5-Dichloro-1, 4-Phenylene Diamine	6393-01-7			
235	2-Chloro-5-Methyl-1, 4 - Phenylene Diamine	5307-03-9			
236	2, 5-Dimethyl – 1, 4 – Phenylene Diamine	6393-01-7			
237	3, 4-Diamino Toluene	496-72-0			
238	2, 3-Dichloro Aniline	608-27-5			
239	2, 5-Dichloro Aniline	95-82-9			
240	3, 4-Dichloro Aniline	95-76-1			
241	3, 5-Dichloro Aniline	626-43-7			
242	3-Iso Propoxy Aniline	41406-00-2			
243	5-Amino Benzimidazole –2-One	95-23-8			
244	6-Methyl-5-Amino Benzimidazolone	67014-36-2			
245	2, 4, 5 Tri Chloro Aniline	636-30-6			
246	Ortho Toluidine	95-53-4			
247	Meta Toluidine	108-44-1			
248	Para Toluidine	106-49-0			
249	Aniline	62-53-3			
250	2,4,6-Trichloro Aniline	634-93-5			
251	Para Fluoro Aniline	371-40-4			
252	4-Fluoro N-Isopropyl Aniline	70441-63-3			
253	2,4-Dichloro-3,5-Dinitrobenzotrifluoride	29091-09-6			
254	2,4-DiFluro Aniline	367-25-9			
255	2-Bromo-4-Fluoro Aniline	1003-98-1			
256	Bis (Nonylphenyl) Amine	36878-20-3			
257	2,6 Dichloro Aniline	608-31-1			
258	Ortho Fluoro Aniline (2-Fluoro Aniline)	348-54-9			
259	2-Phenyl-2-Propanamine	585-32-0			
260	2-Anilino-3-Methyl-6-(di n-butyl amino) Fluoran	89331-94-2			
261	2,3-Dichloro-6-Nitroaniline	65078-77-5			
262	4- Fluoro N-Hydro Acetyl N-Isopropyl Aniline. (FIA Hydroxy)	54041-17-7			

263	N-Methoxy-1-(2,4,6-Trichlorophenyl) Propan-2-Amine	1228284-78-3			
264	1- Amino 2,4,6 Trichloro Benzene/ 2,4,6 Tri Chloro Aniline	634-93-5			
265	2,3,4,5,6 Penta Chloro Pyridine	2176-62-7			
266	3,7 Di Chloro 8- Methyl Quinoline	84086-96-4			
267	2,4-Difluoro Aniline	367-25-9			
268	2,6- Difluoro Aniline	5509-65-9			
269	1,2-Di Fluoro Benzene	367-11-3			
270	2-Amino Benzotrifluoride	88-17-5			
271	3 – Amino Benzotrifluoride	98-16-8			
272	4 – Amino Benzotrifluoride	455-14-1			
273	Ortho Phenylene Diamine	95-54-5			
274	Meta Phenylene Diamine	108-45-2			
275	Para Phenylene Diamine	106-50-3			
276	3,4-Difluoro Benzonitrile	64248-62-0			
Total Production of Group - 7			**200**	**0**	**200**
Group – 8 Acetylated Compounds -200 MT/Month					
277	2, 4-Dichloro Acetophenone	937-20-2	**200**	**0**	**200**
278	2, 5-Dichloro Acetophenone	2476-37-1			
279	4 – Fluoro Acetophenone	403-29-2			
280	2, 4-Dichloro-5-Fluoro Acetophenone	704-10-9			
281	4-Fluoro Phenacyl Chloride	403-26-2			
282	2, 4-Dichloro Phenacyl Chloride	4252-78-2			
283	2, 4-Dichlorobuterophenone	66353-47-7			
284	2,6 Difluoro Acetophenone	13670-99-0			
285	3- Hydroxy Acetophenone	121-71-1			
286	3-Nitro Acetophenone	121-89-1			
287	3-Amino Acetophenone	99-03-6			
Total Production of Group - 8			**200**	**0**	**200**
Group – 9 Nitro Compounds - 200 MT/Month					
288	6-Nitro-3, 4-Dichloro Aniline	6641-64-1	**200**	**0**	**200**
289	4-Nitro-2, 5-Dichloro Aniline	6627-34-5			
290	2-Nitro-4-Methyl Aniline	89-62-3			
291	4-Nitro-2, 5-Dimethyl Aniline	3460-29-5			
292	4-Nitro-5-Chloro-2-Methyl Aniline	13852-51-2			
293	4-Nitro-2, 5-Dichloro Phenol	5847-57-			

		4			
294	4-Nitro-2, 3-Dichloro Phenol	39183-17-0			
295	6-Nitro-2, 4-Dichloro Phenol	609-89-2			
296	2-Nitro-4-Chloro-Phenol	89-64-5			
297	5-Nitro Salicylic Acid	96-97-9			
298	3-Nitro - Para Toluic Acid	96-98-0			
299	3-Nitro-4-Chloro-Benzotrifluoride	121-17-5			
300	Nitro Benzene	98-95-3			
301	2,5 - Dichloro Nitro Benzene	89-61-2			
302	2,3 - Dichloro Nitro Benzene	3209-22-1			
303	3,4 - Dichloro Nitro Benzene	99-54-7			
304	2- Nitro Toluene	88-72-2			
305	3 - Nitro Toluene	99-08-1			
306	4 - Nitro Toluene	99-99-0			
307	1,3 - Dinitro Benzene	99-65-0			
308	3,5 - Dinitro Benzoic Acid	99-34-3			
309	4- Chloro – 3,5 – Dinitro Benzoic Acid	1930-72-9			
310	Para Fluoro Nitro Benzene	350-46-9			
311	Ortho Fluoro Nitro Benzene	1493-27-2			
312	2,4-Difluoro Nitro Benzene	446-35-5			
Total Production of Group - 9			**200**	**0**	**200**
Group - 10 TRICLOSAN / DICLOSAN /AMINO HYDROXY ETHER /HP 100 - 150 MT/Month					
313	HDC HP 100 (TINOSAN HP - 100) (Formulated 2-Hydroxy-4-4 Dichloro Diphenyl Ether) (30% Solution)	3380-30-1	**150**	**0**	**150**
314	Resorcinol Di (Beta - Hydroxy Ethyl) Ether	112-40-9			
315	Phenofen	40843-73-1			
Total Production of Group - 10			**150**	**0**	**150**
Group – 11 Chlorinated Compounds / Carbonyl Chlorides -500 MT/Month					
316	Chloro Benzene	108-90-7	**500**	**0**	**500**
317	Ortho Dichloro Benzene & Para Dichloro Benzene	95-50-1 & 106-46-7			
318	1,3 Di Chloro Benzene	541-73-1			
319	Ortho Chloro Toluene & Para Chloro Toluene	95-49-8 & 106-43-4			
320	2,4 – Dichloro Toluene	95-73-8			
321	Ortho Chloro Phenol & Para Chloro Phenol	95-57-8 & 106-48-9			
322	2,4 Dichloro Phenol	120-83-2			
323	2,6 Di Chloro Phenol	87-65-0			
324	N- Valeroyl Chloride	638-29-9			
325	4- Nitro Benzoyl Chloride	122-04-3			
326	3- Nitro Benzoyl Chloride	121-90-4			
327	4- Chloro Benzoyl Chloride	122-01-0			
328	4- Methyl Benzoyl Chloride	874-60-2			

329	2,4 Di Chloro Benzoyl Chloride	89-75-8			
330	2- Methoxy -5- Bromo -6- Methyl Benzoyl Chloride	38256-93-8			
331	Terephthaloyl Chloride	100-20-9			
332	4- Chloro Butyryl Chloride	4635-59-0			
333	Pivaloyl Chloride	3282-30-2			
334	Propargyl Chloride	624-65-7			
Total Production of Group - 11			**500**	**0**	**500**
Group – 12 Oxidation Compounds - 100 MT/Month					
335	Para Nitro Benzoic Acid	62-23-7	**100**	**0**	**100**
336	Ortho Chloro Benzoic Acid	118-91-2			
337	Para Chloro Benzoic Acid	74-11-3			
338	2,4 Di Chloro Benzoic Acid	2736-23-4			
339	Para Toluic Acid	99-94-5			
Total Production of Group - 12			**100**	**0**	**100**
Total Production of all Groups (from 1 to 12)			**3950**	**0**	**3950**

By-product					
1.	Sodium Sulphite Solution & Salt	7757-83-7	3696	8455	12151
2.	Potassium Chloride Solution & Salt	7447-40-7	50	1307	1357
3.	Sodium Bi Sulphite Solution & Salt	7631-90-5	247	9527	9774
4	Sodium Bromide Solution & Salt	7647-15-6	507	2331	2838
5.	Potassium Bromide Solution & Salt	7758-02-3	214	399	613
6.	Aluminium Chloride Solution (20–28%)	7446-70-0	255	2354	2609
7.	Sulphuric Acid (60 - 70%)	7664-93-9	4911	4658	9569
8.	Sodium Chloride Solution & Salt	7647-14-5	578	958	1536
9.	Ammonium Sulphate Solution & Salt	7783-20-2	16	75	91
10.	Sodium Sulphate solution & Salt	7757-82-6	482	2864	3346
11	Sodium Fluoride Solution & Salt	7681-49-4	14	78	92
12	Potassium Fluoride Solution & Salt	7789-23-3	100	0	100
13	Ammonium Chloride	12125-02-9	85	260	345
14	Dilute HCl (30%)	7647-01-0	0	4273	4273
15	Hydrogen Bromide HBr (25-28%)	10035-10-6	0	3904	3904
16	Phosphorous oxychloride ($POCl_3$)	10025-87-3	0	133	133
17	Phosphoric Acid	7664-38-2	0	1175	1175
18	Sodium Acetate	127-09-3	0	109	109
19	Ammonia	7664-41-7	0	1334	1334
20	Sodium Hypochlorite (NaOCl 8-10%) Solution	7681-52-9	0	386	386
TOTAL			**11,155**	**44,580**	**55,735**

CAS No. and LD50 of each Products:

LIST OF PRODUCTS ALONG WITH PRODUCTION CAPACITY (UNIT-3) (EC-AMENDMENT)			
Sr. No.	**Name of Product**	**CAS NO.**	**LD50**

Group - 1 (Insecticides) - 450 MT/Month			
B. Intermediates			
1	Meta Phenoxy Benzaldehyde (MPBAD)	52315 - 06 - 7	1222 mg/kg
2	Cypermethric Acid Chloride (CMAC)	52314 - 67 - 7	1250 mg/kg
3	Lambda Cyhalothric Acid Chloride (TFP Acid Chloride)	72748-35-7	300 mg/kg
4	Meta Phenoxy Benzyl Alcohol (MPBAL)	13826-35-2	1496 mg/kg
5	2-Chloro 5-Chloromethyl Pyridine (CCMP)	70258-18-3	2000 mg/kg
C. Synthetic Pyrethroid			
6	Cypermethrin (T) & Beta, Zeta, ThetaetcIsomers (T)	71697-59-1	>5000 mg/kg
7	Alphacypermethrin (T)	67375-30-8	500 mg/kg
8	Deltamethrin (T)	52918-63-5	9.36 mg/kg
9	Permethrin (T)	52645-53-1	383 mg/kg
10	Lambda Cyhalothrin (T)	91465-08-6	56 mg/kg
11	Bifenthrin (T)	82657-04-3	>2000 mg/kg
12	Tefluthrin (T)	79538-32-2	148 mg/kg
13	Transfluthrin (T)	118712-89-3	>5000 mg/kg
14	Cyfluthrin& Beta Isomers (T)	68359-37-5	12.5 mg/kg
15	Cyphenothrin (T) & its [1R-Trans-isomer]	39515-40-7	148 mg/kg
16	Dimefluthrin (T)	271241-14-6	1550 mg/kg
17	Fenpropathrin (T)	39515-41-8	18 mg/kg
18	Cycloprothrin (T)	63935-38-6	>5000 mg/kg
19	Flumethrin (T)	69770-45-2	>20 mg/kg
20	Acrinathrin (T)	101007-06-1	>5000 mg/kg
21	Etofenprox (T)	80844-07-01	>2000 mg/kg
22	Flucythrinate (T)	70124-77-5	67 mg/kg
D. Neo Nicotinoid/ Thiazole / Nitro Guanidine			
23	Imidacloprid (T)	138261-41-3	410 mg/kg
24	Acetamiprid (T)	135410-20-7	146 mg/kg
E. **Carbamate / Phenyl Ether /Benzoyl Phenyl Urea/Phenyl Pyrazole/ Oxadiazine**			
25	Fenoxycarb (T)	72490-01-8	16800 mg/kg
26	Pyriproxifen (T)	95737-68-1	>5000 mg/kg
Group - 2 (Herbicides) - 600 MT/Month			
B. Amide / Nitro phenyl Ether Herbicides			
27	Fomesafen (T)	72178-02-0	>5000 mg/kg
28	Halosafen (T)	77227-69-1	2000 mg/kg
29	Napropamide (T)	15299-99-7	4680 mg/kg
30	Quinclorac	84087-01-4	>2000 mg/kg
31	Bromobutide	74712-19-9	>5000 mg/kg
C. Anilide / Pyridine / Aryloxy Phenoxypropionic Herbicides			
32	Metamifop (T)	256412-89-2	>2000 mg/kg
33	Picolinafen (T)	137641-05-5	>5000 mg/kg
34	Chlorazifop (T) & Chlorazifop Propargyl (T)	60074-25-1&72880-52-5	1200 mg/kg
35	Clodinafop & Clodinafop Propargyl (T)	114420-56-3&105512-06-9	300 mg/kg
36	Cyhalofop & Cyhalofop Butyl (T)	122008-78-0& 122008-85-9	>5000 mg/kg
37	Diclofop (T) & Diclofop Methyl (T)	40843-25-2&51338-27-3	523 mg/kg
38	Fenoxaprop (T) & Fenoxaprop P Ethyl (T)	95617-09-	>5000 mg/kg

		7&71283-80-2	
39	Fluazifop (T) & Fluazifop P Butyl	69335-91-7&79241-46-6	2910 mg/kg
40	Haloxyfop (T) & Haloxyfop Methyl	69806-34-4&72619-32-0	>5000 mg/kg
41	Quizalofop (T) &Quizalofop Ethyl (T)	76578-12-6&76578-14-8	>2000 mg/kg
42	Cloquintocet Mexyl (T)	99607-70-2	>2000 mg/kg
43	Quizalofop-P-Tefuryl	119738-06-6	1012 mg/kg
44	Haloxyfop Ethoxy Ethyl (Etotyl)	87237-48-7	518 mg/kg
45	Flufenacet	142459-58-3	589 mg/kg
46	Diflufenican	83164-33-4	2150 mg/kg
47	Cloransulam-Methyl	220899-03-6	>5000 mg/kg
D. Phenyl Ether /Phenoxy Carboxylic Acid / Pyridine / Nitro Phenyl Ether			
48	Acifluorfen (T)	50594-66-6	2128 mg/kg
49	Aclonifen (T)	74070-46-5	>5000 mg/kg
50	Chlomethoxyfen (T)	32861-85-1	>10000 mg/kg
51	Fluoroglycofen (T)	77501-90-7	1480 mg/kg
52	Lactofen (T)	77501-63-4	>5000 mg/kg
53	Oxyfluorfen (T)	42874-03-3	>2150 mg/kg
54	Dicamba(T)	1918-00-9	1039 mg/kg
55	Fluoroxypyr-Meptyl	81406-37-3	>5000 mg/kg
56	Picloram	1918-02-1	2892 mg/kg
57	Triclopyr – Butotyl	64700-56-7	2140 mg/kg
E. Triazinone Herbicides I D / Cyclohexane Oxime			
58	Metamitron (T)	41394-05-2	1447 mg/kg
59	Metribuzine (T)	21087-64-9	1100 mg/kg
60	Clethodine (T)	99129-21-2	1360 mg/kg
61	Imazamethabenz	100728-84-5	>5000 mg/kg
62	Imazamox	114311-32-9	>5000 mg/kg
63	Imazapyr	81334-34-1	>5000 mg/kg
64	Imazethapyr	81335-77-5	>5000 mg/kg
65	Benoxacor	93730-04-2	5000 mg/kg
66	Phenmedipham	13684-63-4	4000 mg/kg
67	Desmedipham	13684-56-5	9600 mg/kg
Group – 3 (Fungicides) - 500 MT/Month			
B. Conazole Fungicide			
68	1,2,4 Triazole	288-88-0	1320.39 mg/kg
69	3- Methyl 1,2,4 Triazole	7170-01-6	Data Not Available
70	Difenoconazole (T)	119446-68-3	1453 mg/kg
71	Azaconazole (T)	60207-31-0	308 mg/kg
72	Bromuconazole (T)	116255-48-2	365 mg/kg
73	Epoxiconazole (T)	133855-98-8	>5000 mg/kg
74	Etazonazole (T)	84625-61-6	>320 mg/kg
75	Hexaconazole (T)	79983-71-4	2189 mg/kg
76	Penconazole (T)	66246-88-6	2125 mg/kg
77	Propiconazole (T)	60207-90-1	1517 mg/kg
78	Tebuconazole (T)	107534-96-3	3352 mg/kg
79	Fenfuconzole (T)	114369-43-6	>2000 mg/kg
80	Ipconzole (T)	125225-28-7	1338 mg/kg
81	Metconzole (T)	125116-23-6	1459 mg/kg

82	Tetraconazole (T)	112281-77-3	>500 mg/kg
83	Cyproconazole (T)	94361-06-5	1020 mg/kg
84	Prothioconazole (T)	178928-70-6	>6200 mg/kg
85	Fluquinconazole (T)	136426-54-5	112 mg/kg
86	Myclobutanil (T)	88671-89-0	1600 mg/kg
87	Imazalil (T)	35554-44-0	227 mg/kg
88	Triadimenol (T)	55219-65-3	700 mg/kg
89	Triadimefol (T)	43121-43-3	363 mg/kg
90	Triticonazole(T)	131983-72-7	>2000 mg/kg
91	Etoxazole	153233-91-1	>5000 mg/kg
92	Metrafenone	220899-03-6	>5000 mg/kg
C. Strobilurin / Methoxyacrylate / Carbanilate / Amide / Fungicides			
93	Dimoxystrobin (T)	149961-52-4	>5000 mg/kg
94	Kresoxim Methyl (T)	143390-89-0	5000 mg/kg
95	Trifloxystrobin (T)	141517-21-7	>5000 mg/kg
96	Flufenoxy Strobin (T)	918162-02-4	Data Not Available
97	Picoxystrobin (T)	117428-22-5	>5000 mg/kg
98	Triclopyricarb(T)	902760-40-1	Data Not Available
99	Azoxy Strobin (T)	131860-33-8	>5000 mg/kg
100	Metominostrobin (T)	133408-50-1	Data Not Available
101	Fluoxastrobin (T)	361377-29-9	>5000 mg/kg
102	Orysastrobin (T)	248593-16-0	2460 mg/kg
103	Pyraclostrobin (T)	175013-18-0	>5000 mg/kg
104	Fenoxanil (T)	115852-48-7	300 mg/kg
105	Cymoxanil (T)	57966-95-7	960 mg/kg
106	Flutolanil	66332-96-5	10000 mg/kg
D. Acylamino / Anilide / Aromatic Fungicides / Quinoline / Dicarboxymale / Oxazole			
107	Metalaxyl (T)	57837-19-1	566 mg/kg
108	Benalaxyl (T)	71626-11-4	4200 mg/kg
109	Clorothalanil (T)	1897-45-6	10000 mg/k
110	Fluazinam (T)	79622-59-6	>5000 mg/kg
111	Quinoxyfen (T)	124495-18-7	5000 mg/kg
112	Famoxadone (T)	131807-57-3	>5000 mg/kg
113	Paclobutrazol	76738-62-0	1300 mg/kg
Group – 4 AMINO DIPHENYL ETHER / PHENOXY COMPOUNDS - 300 MT/Month			
114	2-Amino-2', 4'-Dichloro Diphenyl Ether (Y)	56966-48-4	Data Not Available
115	2-Amino - 2'- Methyl Diphenyl Ether (Red Ether)	3840-18-4	100 mg/kg
116	Amino Resorcine Di Ortho Cresyl Ether	73637-04-4	Data Not Available
117	2-Amino Di Phenyl Ether (Ortho Amino Di Phenyl Ether/2 - PA)	2688-84-8	212 mg/kg
118	4-Amino Di Phenyl Ether	139-59-3	1100 mg/kg
119	4-Amino 4'- Methyl Di Phenyl Ether (4-PP)	41295-20-9	Data Not Available
120	2- Amino 2', 4, 4'- Tri Chloro Di Phenyl Ether (Benzinamide, 5-Chloro-2-2(2,4-Dichloro Phenoxy)/Tade)	56966-52-0	Data Not Available
121	4- Amino 2', 4' Di Chloro Di Phenyl Ether (OD	14861-17-7	Data Not

	Amino)		Available
122	4, 4'- Di Amino Di Phenyl Ether	101-80-4	725 mg/kg
123	3, 4' - Di Amino Di Phenyl Ether	2657-87-6	Data Not Available
124	2- Amino -4- Chloro Di Phenyl Ether (PHD Ether)	93-67-4	Data Not Available
125	4- Amino -2, 4' -Di Chloro Di Phenyl Ether (GE/Aminophene)	14861-17-7	Data Not Available
126	2- Amino - 4' - Chloro Di Phenyl Ether	93-67-4	Data Not Available
127	2- Amino -4'- Chloro -4 -Trifluoromethyl Di Phenyl Ether (ACTM)	349-20-2	Data Not Available
128	4- Amino - 4' - Chloro Di Phenyl Ether (PPNA)	101-79-1	Data Not Available
129	1, 2- Bis (2- Amino Phenoxy) Ethane	85233-19-8	Data Not Available
130	1,2-Bis(4-Amino Phenoxy) Ethane	6052-10-4	Data Not Available
131	4-Amino-4'-Nitro Diphenyl Ether	6149-33-3	300 mg/kg
132	2-Amino-2',4 -Dichloro Diphenyl Ether	56966-48-4	300 mg/kg
133	2-Amino-4,4'-Dichloro Diphenyl Ether (PD Amino)	121-27-7	Data Not Available
134	2-(4-Nitro Phenoxy) Ethanol	16365-27-8	Data Not Available
135	1,4-Bis(4-Amino Phenoxy) Benzene	3491-12-1	Data Not Available
136	1,3-Bis(4-Amino Phenoxy) Benzene	2479-46-1	1378 mg/kg
137	1,3-Bis(3-Amino Phenoxy) Benzene	10526-07-5	Data Not Available
138	1,2-Bis(2-Methyl Phenoxy) Ethane	53223-37-3	Data Not Available
139	1,2-Bis(3-Methyl Phenoxy) Ethane	54914-85-1	Data Not Available
140	1,2-Bis(3-Methyl Phenoxy) Ethane	54914-85-1	Data Not Available
141	5-Amino-2,2',3-Trichloro-4-Nitro-Diphenyl Ether	118353-04-1	Data Not Available
142	2-Amino -4,4'-Dichloro Diphenyl Ether-2'-Sulfonic Acid/Sodium Salt	42293-27-6	Data Not Available
143	4,4'-Dihydroxy Diphenyl Ether	1965-09-9	Data Not Available
144	2-Hydroxy-4,4'-Dichloro Diphenyl Ether	3380-30-1	Data Not Available
145	2-Hydroxy-2,4,4'-Trichloro Diphenyl Ether	3380-34-5	3700 mg/kg
146	4-Hydroxy-2',4'-Dichloro Diphenyl Ether	40843-73-0	300 mg/kg
147	2-Chloro-4-(4-Chlorophenoxy) Acetophenone/4-Acetyl-3,4'-Dichloro Diphenyl Ether	119851-28-4	Data Not Available
148	2-Acetyl-2',4,4'-Trichloro Diphenyl Ether	211125-94-9	Data Not Available
149	4,4' Dimethyl Diphenyl Ether	1579-40-4	2600 mg/kg
150	4,4'-Dicarboxy Diphenyl Ether	2215-89-6	Data Not

			Available
151	Diphenyl Ether	101-84-8	2450 mg/kg
152	4-Hydroxy Diphenyl Ether / 4-Phenoxy Phenol	831-82-3	2450 mg/kg
153	5 Chloro-6-(2,3 Dichloro Phenoxy)-2-Methyl thio -1H Benzimidazole /Triclabendazole	68786-66-3	8000 mg/kg
154	3,4'-Dimethyl Diphenyl Ether	51801-69-5	Data Not Available
155	3-Phenoxy Toluene	3586-14-9	2509 mg/kg
156	2,4-Bis[4-(2-ethylhexyloxy)-2-hydroxyphenyl]-6-(4-methoxyphenyl)-1,3,5-triazine/ Bemotrizinol.	187393-00-6	>2000 mg/kg
157	2,2'-Methylenebis-[6-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)-phenol]	103597-45-1	>2000 mg/kg
158	1-(4-tert-Butylphenyl)-3-(4-methoxyphenyl)-1,3-propanedione	70356-09-1 / 87075-14-7	>16000 mg/kg
159	2-Hydroxy-4-methoxybenzophenone	131-57-7	7400 mg/kg
160	2-Ethylhexyl 4-methoxycinnamate	5466-77-3	9600 mg/kg
161	2-Cyano-3,3-diphenyl-2-propenoic acid 2-ethylhexyl ester	6197-30-4	>2000 mg/kg
162	Bis(2-ethylhexyl) 4,4'-(6-(4-tert-butylcarbamoyl) anilino)-1,3,5-triazine-2,4-diyldiimino) dibenzoate	154702-15-5	Data Not Available
163	4,4',4"-(1,3,5-Triazine-2,4,6-triyltriimino)-tris-benzoic acid tris-(2-ethylhexyl) ester	88122-99-0	>5000 mg/kg
164	2-(Bromomethyl)-2-[2-chloro-4-(4-chlorophenoxy)phenyl]-4-Methyl-1,3-Dioxolane	873012-43-2	Data Not Available
165	2-[3-(Trifluoromethyl) Phenoxy] Nicotinic Acid	36701-89-0	Data Not Available
Group - 5 Specialty Phenols/ Specialty Chloro Phenol - 500 MT/Month			
166	2, 3-Dichloro Phenol	576-24-9	2376 mg/kg
167	2, 5-Dichloro Phenol	583-78-8	580 mg/kg
168	3, 4-Dichloro Phenol	95-77-2	1685 mg/kg
169	3, 5-Dichloro Phenol	591-35-5	2389 mg/kg
170	3-Mehtyl Phenol (m-Cresol)	108-39-4	242 mg/kg
171	3- Chloro Phenol	108-43-0	570 mg/kg
172	3-Nitro Phenol	554-84-7	328 mg/kg
173	4-(2- Methoxy Ethyl) Phenol	56718-71-9	Data Not Available
174	Anisole	100-66-3	120-32-1
175	2,3 Dichloro Anisole	1984-59-4	Data Not Available
176	2,5 Dichloro Anisole	1984-59-4	Data Not Available
177	4-Bromo-2-Chloro Phenol	3964-56-5	Data Not Available
178	4-Bromo 2,5 Dichloro Phenol	1940-42-7	1350 mg/kg
179	4-Fluoro Phenol	371-41-5	Data Not Available
180	2-Fluoro Phenol	367-12-4	Data Not Available
181	O-Benzyl-p-Chloro Phenol	120-32-1	1700 mg/kg
182	O-Cyano Phenol	611-20-1	500 mg/kg
183	P-Chloro-m-Cresol	59-50-7	1830 mg/kg

184	P-Chloro-m-Xylenol	88-04-0	3830 mg/kg
185	Dichloro-m-Xylenol	133-53-9	Data Not Available
186	Dichlorophene	97-23-4	3830 mg/kg
187	Bromochlorophene	15435-29-7	3700 mg/kg
188	5 - Chloro-2-Amino Phenol	28443-50-7	Data Not Available
189	4-Chloro-2-Amino Phenol	95-85-2	690 mg/kg
190	4,6-Dichloro-2-Amino Phenol	527-62-8	Data Not Available
191	3,4,5 Tri Methoxy Toluene	6443-69-2	Data Not Available
192	4-Bromo Anisole	104-92-7	3800 mg/kg
193	Ortho Nitro Phenol	88-75-5	334 mg/kg
194	Para Fluoro Anisole	459-60-9	Data Not Available
195	2- Chloro 4-Fluoro Phenol	1996-41-4	Data Not Available
196	Ortho Fluoro Phenol (2-Fluoro Phenol)	367-12-4	537 mg/kg
197	Ortho Fluoro Anisole (2-Fluoro Anisole)	321-28-8	Data Not Available
198	4-Nitro-M-Cresol	2581-34-2	1200 mg/kg
199	3-Hydroxy Benzotrifluoride	98-17-9	57 mg/kg
200	1-(4-chlorophenyl)-4,4-dimethyl-3-pentanone	66346-01-8	Data Not Available
201	Resorcinol / 1,3 Benzenediol / Meta Di Hydroxy Benzene	108-46-3	301 mg/kg
202	Meta Amino Phenol	591-27-5	924 mg/kg
	Group – 6 Amino Benzoic Esters / Aliphatic Esters - 250 MT/Month		
203	3-Amino-4-Methyl Benzoic Acid Methyl Ester	18595-18-1	Data Not Available
204	3-Amino 4-Methyl Benzoic Acid Isopropyl Ester (AMBI)	21447-47-2	300 mg/kg
205	3-Amino 4-Methyl Benzoic Acid(2' - Chloro Ethyl Ester) (AMBC)	2458-12-0	Data Not Available
206	5-Amino-2-Methyl Benzene Sulphonic Acid Phenyl Ester	1089339-15-0	Data Not Available
207	Benzene Sulphonic Acid 3-Amino Phenyl Ester	13653-18-4	Data Not Available
208	2-Cyano-3,4,5,6-Tetrachloro Benzoic Acid Methyl Ester	5358-06-5	Data Not Available
209	Benzene Sulphonic Acid 2-Methyl-5-Nitrophenyl Ester	85896-03-3	Data Not Available
210	Bisphenol - A (Amino Benzene Sulfonate)	68015-60-1	Data Not Available
211	2-Amino-3-Chloro Benzoic Acid Methyl Ester	77820-58-7	Data Not Available
212	3,6-Dichloro-2-Hydroxybenzoic Acid	3401-80-7	300 mg/kg
213	1-Methyl-2-(Phenoxy Phenoxy) Ethanol	134227-44-4	Data Not Available
214	1-(4-Phenoxyphenoxy)-2-propanol	57650-78-9	Data Not Available

215	2,2,3,3-Tetramethyl Cyclopropane Carboxylic Acid	15641-58-4	Data Not Available
216	2,6 Difluoro α-Oxo Benzene Acetic Acid	132115-70-9	Data Not Available
217	2,6 Difluoro Benzonitrile	1897-52-5	Data Not Available
218	2,6 Difluoro Benzamide	18063-03-1	3299 mg/kg
219	2,6 Dichloro Benzonitrile	1194-65-6	2710 mg/kg
220	3,4-Difluoro Benzonitrile	64248-62-0	Data Not Available
221	2,6 Di Chloro Benzoxazole	3621-82-7	980 mg/kg
222	Trimethyl Orthoformate	149-73-5	5000 mg/kg
223	Triethyl Orthoformate	122-51-0	7060 mg/kg
224	Sodium Methoxide	124-41-4	1682 mg/kg
225	Sodium Ethoxide	141-52-6	3450 mg/kg
226	2 – Amino 3-Chloro Benzoic Acid Methyl Ester	77820-58-7	980 mg/kg
227	2- Nitro-5-Chloro-4-Methyl Benzoic Acid Iso Propy Ester	1204518-43-3	Data Not Available
228	N-(2-Hydroxypropyl)-2-Picolylamine	68892-16-0	Data Not Available
Group - 7 Amino Compounds / Hydrogenation Compounds - 200 MT/Month			
229	3-Amino-4-Chloro Benzoic Acid	2840-28-0	Data Not Available
230	3-Amino-4-Methyl Benzoic Acid	2458-12-0	Data Not Available
231	3-Amino-4-Chloro Benzotrifluoride	121-50-6	Data Not Available
232	3-Amino Benzotrifluoride	98-16-8	480 mg/kg
233	2-Chloro-1,4 - Phenylene Diamine (2,5 DCPPD)	615-66-7	Data Not Available
234	2, 5-Dichloro-1, 4-Phenylene Diamine	6393-01-7	Data Not Available
235	2-Chloro-5-Methyl-1, 4 - Phenylene Diamine	5307-03-9	Data Not Available
236	2, 5-Dimethyl – 1, 4 – Phenylene Diamine	6393-01-7	Data Not Available
237	3,4-Diamino Toluene	496-72-0	73 mg/kg
238	2,3-Dichloro Aniline	608-27-5	>200 mg/kg
239	2, 5-Dichloro Aniline	95-82-9	1600 mg/kg
240	3, 4-Dichloro Aniline	95-76-1	545 mg/kg
241	3, 5-Dichloro Aniline	626-43-7	Data Not Available
242	3-Iso Propoxy Aniline	41406-00-2	Data Not Available
243	5-Amino Benzimidazole –2-One	95-23-8	Data Not Available
244	6-Methyl-5-Amino Benzimidazolone	67014-36-2	Data Not Available
245	2,4,5 Tri Chloro Aniline	636-30-6	2975 mg/kg
246	Ortho Toluidine	95-53-4	2400 mg/kg
247	Meta Toluidine	108-44-1	417 mg/kg
248	Para Toluidine	106-49-0	356 mg/kg

249	Aniline	62-53-3	1500 mg/kg
250	2,4,6-Trichloro Aniline	634-93-5	820 mg/kg
251	Para Fluoro Aniline	371-40-4	Data Not Available
252	4-Fluoro N-Isopropyl Aniline	70441-63-3	>5000 mg/kg
253	2,4-Dichloro-3,5-Dinitrobenzotrifluoride	29091-09-6	3167 mg/kg
254	2,4-DiFluro Aniline	367-25-9	356 mg/kg
255	2-Bromo-4-Fluoro Aniline	1003-98-1	Data Not Available
256	Bis (Nonylphenyl) Amine	36878-20-3	>2000 mg/kg
257	2,6 Dichloro Aniline	608-31-1	Data Not Available
258	Ortho Fluoro Aniline (2-Fluoro Aniline)	348-54-9	Data Not Available
259	2-Phenyl-2-Propanamine	585-32-0	Data Not Available
260	2-Anilino-3-Methyl-6-(di n-butyl amino) Fluoran	89331-94-2	2400 mg/kg
261	2,3-Dichloro-6-Nitroaniline	65078-77-5	435 mg/kg
262	4- Fluoro N-Hydro Acetyl N-Isopropyl Aniline. (FIA Hydroxy)	54041-17-7	Data Not Available
263	N-Methoxy-1-(2,4,6-Trichlorophenyl) Propan-2-Amine	1228284-78-3	820 mg/kg
264	1- Amino 2,4,6 Trichloro Benzene/ 2,4,6 Tri Chloro Aniline	634-93-5	Data Not Available
265	2,3,4,5,6 Penta Chloro Pyridine	2176-62-7	Data Not Available
266	3,7 Di Chloro 8- Methyl Quinoline	84086-96-4	Data Not Available
267	2,4-Difluoro Aniline	367-25-9	480 mg/kg
268	2,6- Difluoro Aniline	5509-65-9	128 mg/kg
269	1,2-Di Fluoro Benzene	367-11-3	Data Not Available
270	2-Amino Benzotrifluoride	88-17-5	Data Not Available
271	3 – Amino Benzotrifluoride	98-16-8	480 mg/kg
272	4 – Amino Benzotrifluoride	455-14-1	128 mg/kg
273	Ortho Phenylene Diamine	95-54-5	510 mg/kg
274	Meta Phenylene Diamine	108-45-2	280 mg/kg
275	Para Phenylene Diamine	106-50-3	80 mg/kg
276	3,4-Difluoro Benzonitrile	64248-62-0	Data Not Available
Group – 8 Acetylated Compounds -200 MT/Month			
277	2, 4-Dichloro Acetophenone	937-20-2	Data Not Available
278	2, 5-Dichloro Acetophenone	2476-37-1	Data Not Available
279	4 – Fluoro Acetophenone	403-29-2	Data Not Available
280	2,4-Dichloro-5-Fluoro Acetophenone	704-10-9	>2000 mg/kg
281	4-Fluoro Phenacyl Chloride	403-26-2	Data Not Available
282	2,4-Dichloro Phenacyl Chloride	4252-78-2	50-300 mg/kg

283	2,4-Dichlorobuterophenone	66353-47-7	980 mg/kg
284	2,6 Difluoro Acetophenone	13670-99-0	Data Not Available
285	3- Hydroxy Acetophenone	121-71-1	Data Not Available
286	3-Nitro Acetophenone	121-89-1	3250 mg/kg
287	3-Amino Acetophenone	99-03-6	1870 mg/kg
Group – 9 Nitro Compounds - 200 MT/Month			
288	6-Nitro-3,4-Dichloro Aniline	6641-64-1	Data Not Available
289	4-Nitro-2,5-Dichloro Aniline	6627-34-5	2820 mg/kg
290	2-Nitro-4-Methyl Aniline	89-62-3	Data Not Available
291	4-Nitro-2,5-Dimethyl Aniline	3460-29-5	Data Not Available
292	4-Nitro-5-Chloro-2-Methyl Aniline	13852-51-2	Data Not Available
293	4-Nitro-2,5-Dichloro Phenol	5847-57-4	Data Not Available
294	4-Nitro-2,3-Dichloro Phenol	39183-17-0	Data Not Available
295	6-Nitro-2,4-Dichloro Phenol	609-89-2	Data Not Available
296	2-Nitro-4-Chloro-Phenol	89-64-5	Data Not Available
297	5-Nitro Salicylic Acid	96-97-9	Data Not Available
298	3-Nitro - Para Toluic Acid	96-98-0	Data Not Available
299	3-Nitro-4-Chloro-Benzotrifluoride	121-17-5	1075 mg/kg
300	Nitro Benzene	98-95-3	349 mg/kg
301	2,5 - Dichloro Nitro Benzene	89-61-2	1000 mg/kg
302	2,3 - Dichloro Nitro Benzene	3209-22-1	381 mg/kg
303	3,4 - Dichloro Nitro Benzene	99-54-7	>500 mg/kg
304	2- Nitro Toluene	88-72-2	891 mg/kg
305	3 - Nitro Toluene	99-08-1	1072 mg/kg
306	4 - Nitro Toluene	99-99-0	1960 mg/kg
307	1,3 - Dinitro Benzene	99-65-0	59.5 mg/kg
308	3,5 - Dinitro Benzoic Acid	99-34-3	1800 mg/kg
309	4- Chloro – 3,5 – Dinitro Benzoic Acid	1930-72-9	50 mg/kg
310	Para Fluoro Nitro Benzene	350-46-9	250 mg/kg
311	Ortho Fluoro Nitro Benzene	1493-27-2	Data Not Available
312	2,4-Difluoro Nitro Benzene	446-35-5	200 mg/kg
Group - 10 TRICLOSAN / DICLOSAN /AMINO HYDROXY ETHER /HP 100 - 150 MT/Month			
313	HDC HP 100 (TINOSAN HP -100) (Formulated 2-Hydroxy-4-4 Dichloro Diphenyl Ether) (30% Solution)	3380-30-1	Data Not Available
314	Resorcinol Di (Beta - Hydroxy Ethyl) Ether	112-40-9	Data Not Available
315	Phenofen	40843-73-1	Data Not

			Available
Group – 11 Chlorinated Compounds / Carbonyl Chlorides -500 MT/Month			
316	Chloro Benzene	108-90-7	1100 mg/kg
317	Ortho Dichloro Benzene & Para Dichloro Benzene	95-50-1 & 106-46-7	500 mg/kg
318	1,3 Di Chloro Benzene	541-73-1	1062 mg/kg
319	Ortho Chloro Toluene & Para Chloro Toluene	95-49-8 & 106-43-4	2350 mg/kg
320	2,4 – Dichloro Toluene	95-73-8	2400 mg/kg
321	Ortho Chloro Phenol & Para Chloro Phenol	95-57-8 & 106-48-9	40 mg/kg
322	2,4 Dichloro Phenol	120-83-2	47 mg/kg
323	2,6 Di Chloro Phenol	87-65-0	2940 mg/kg
324	N- Valeroyl Chloride	638-29-9	900 mg/kg
325	4- Nitro Benzoyl Chloride	122-04-3	900 mg/kg
326	3- Nitro Benzoyl Chloride	121-90-4	2460 mg/kg
327	4- Chloro Benzoyl Chloride	122-01-0	900 mg/kg
328	4- Methyl Benzoyl Chloride	874-60-2	900 mg/kg
329	2,4 Di Chloro Benzoyl Chloride	89-75-8	900 mg/kg
330	2- Methoxy -5- Bromo -6- Methyl Benzoyl Chloride	38256-93-8	Data Not Available
331	Terephthaloyl Chloride	100-20-9	2500 mg/kg
332	4- Chloro Buteryl Chloride	4635-59-0	1350mg/kg
333	Pivaloyl Chloride	3282-30-2	638 mg/kg
334	Propargyl Chloride	624-65-7	Data Not Available
Group – 12 Oxidation Compounds - 100 MT/Month			
335	Para Nitro Benzoic Acid	62-23-7	1960 mg/kg
336	Ortho Chloro Benzoic Acid	118-91-2	2300 mg/kg
337	Para Chloro Benzoic Acid	74-11-3	1170 mg/kg
338	2,4 Di Chloro Benzoic Acid	2736-23-4	Data Not Available
339	Para Toluic Acid	99-94-5	2340 mg/kg

Annexure-2

Air Pollution Control System

Details of Flue Gas Stack

A) Stack Attached to Steam Boiler – 1 (Removed)

Capacity	10 MT / hour		
Source of Gaseous Emissions	Stack		
Fuel Used	Imported Coal		
Fuel Consumption	40 MT / day		
Type of Emissions	SPM	SO_2	NOx
Permissible Limits	150 mg / Nm^3	100 ppm	50 ppm
Stack Height	32 meters		
Stack Diameter	1000 mm		
Air Pollution Control System	Electrostatic Precipitator and Scrubber with Online Monitoring System		

B) Stack Attached to Steam Boiler – 1 (Proposed)

Capacity	15 MT / hour		
Source of Gaseous Emissions	Stack		
Fuel Used	Imported Coal		
Fuel Consumption	65 MT / day		
Type of Emissions	SPM	SO_2	NOx
Permissible Limits	150 mg / Nm^3	100 ppm	50 ppm
Stack Height	32 meters		
Stack Diameter	1000 mm		
Air Pollution Control System	Electrostatic Precipitator and Scrubber with Online Monitoring System		

C) Stack Attached to Steam Boiler – 2 (Standby) -(Removed)

Capacity	5.0 MT / hour		
Source of Gaseous Emissions	Stack		
Fuel Used	Imported Coal		
Fuel Consumption	18 MT / day		
Type of Emissions	SPM	SO_2	NOx
Permissible Limits	150 mg / Nm^3	100 ppm	50 ppm
Stack Height	35 meters		
Stack Diameter	1000 mm		
Air Pollution Control System	Electrostatic Precipitator and Scrubber with Online Monitoring System		

D) Stack Attached to Steam Boiler – (1 Proposed & 1 Standby)

Capacity	15 MT / hour		
Source of Gaseous Emissions	Stack		
Fuel Used	Imported Coal		
Fuel Consumption	65 MT / day		
Type of Emissions	SPM	SO_2	NOx
Permissible Limits	150 mg / Nm^3	100 ppm	50 ppm
Stack Height	32 meters		
Stack Diameter	1000 mm		
Air Pollution Control System	Electrostatic Precipitator and Scrubber with Online Monitoring System		

E) Stack Attached to Thermic Fluid Heater (Removed)

Source of Gaseous Emissions	Stack attached to Thermic Fluid Heater (1 No.) – 2000 U		
Fuel Used	Natural Gas		
Type of Emissions	SPM	SO_2	NOx
Permissible Limits	150 mg / Nm^3	100 ppm	50 ppm
Stack Height	25 meters		
Stack Diameter	800 mm		

F) Stack Attached to Thermic Fluid Heater(Proposed)

Source of Gaseous Emissions	Stack attached to Thermic Fluid Heater (4 No.) – 500 U		
Fuel Used	Natural Gas		
Type of Emissions	SPM	SO_2	NOx
Permissible Limits	150 mg / Nm^3	100 ppm	50 ppm
Stack Height	18 meters		
Stack Diameter	800 mm		

G) Stack Attached to D. G. Set

Source of Gaseous Emissions	Stack attached to D. G .Set (750 KVA + 1000 KVA + 1250 KVA)		
Fuel Used	HSD		
Type of Emissions	SPM	SO_2	NOx
Permissible Limits	150 mg / Nm^3	100 ppm	50 ppm
Stack Height	11 meters		
Stack Diameter	200 mm		

Details of Process Stack

Sr. No.	Stack Attached to	Stack Height	Air Pollution Control System	Parameter	Permissible Limits
1)	Herbicide	12 m	Two Stage Water Scrubber HBr Scrubber	HCl SO_2 HBr	20 mg / Nm^3 40 mg / Nm^3 5 mg / Nm^3
2)	Fungicide	12 m	Two Stage Water Scrubber HBr Scrubber	HCl SO_2 HBr	20 mg / Nm^3 40 mg / Nm^3 5 mg / Nm^3
3)	Reaction Vessel	12 m	Two Stage Alkali Scrubber	HCl	20 mg / Nm^3
4)	Nitro Plant	12 m	Two Stage Water Alkali Scrubber	HCl SO_2	20 mg / Nm^3 40 mg / Nm^3
5)	Insecticide	12 m	Two Stage Water Scrubber HBr Scrubber	HCl SO_2 HBr	20 mg / Nm^3 40 mg / Nm^3 5 mg / Nm^3
6)	Reaction Vessel	12 m	Two Stage Water Alkali Scrubber	HCl SO_2	20 mg / Nm^3 40 mg / Nm^3

Annexure -4:

Hazardous Waste Management

Sr. No.	Waste Details	Waste Category	Quantity (MT/Month)			Mode of Disposal
			Existing	Additional	Proposed	

1.	ETP Sludge	34.3	60	0	60	Collection, Storage, Transportation and Disposal at Nearest TSDF
2.	Process waste Sludge (Iron Sludge)	26.1	1000	0	1000	Collection, Storage, Transportation and Disposal at Nearest TSDF or sell to Cement Industry
3.	Used Oil	5.1	100 Liter/Month	0	100 Liter/Month	Collection, Storage, Transportation and Selling to authorize recyclers.
4.	Discarded liners/Bags / Drums Unit in No./Month	33.3	3000 Nos./Month	0	3000 Nos./Month	Collection, Storage, Transportation and Selling to authorize recyclers.
5.	Salt from MEE	34.3	200	0	200	Collection, Storage, Transportation and Disposal at Nearest TSDF
6.	Distillation Residue	36.4	30	0	30	Collection, Storage, Transportation and sell to Cement Industry for Co-processing or Disposal at Common Incineration Site
7.	Spent Carbon	34.3	6	0	6	Collection, Storage, Transportation and Disposal at Common Incineration Site
8.	Sodium Sulphite Solution & Salt	--	3696	8455	12151	Collection, Storage, Transportation & Sell to end user
9.	Potassium Chloride Solution & Salt	--	50	1307	1357	Collection, Storage, Transportation & Sell to end user
10.	Sodium Bi Sulphite Solution & Salt	--	247	9527	9774	Collection, Storage, Transportation & Sell to end user
11	Sodium Bromide Solution & Salt	--	507	2331	2838	Collection, Storage, Transportation & Sell to end user
12.	Potassium Bromide	--	214	399	613	Collection, Storage, Transportation &

	Solution & Salt					Sell to end user
13.	Aluminium Chloride Solution (20– 28%)	C1	255	2354	2609	Collection, Storage, Transportation & Sell to end user
14.	Sulphuric Acid (60 - 70%)	D2	4911	4658	9569	Collection, Storage, Transportation & Sell to end user
15.	Sodium Chloride Solution & Salt	--	578	958	1536	Collection, Storage, Transportation & Sell to end user
16.	Ammonium Sulphate Solution & Salt	C1	16	75	91	Collection, Storage, Transportation & Sell to end user
17.	Sodium Sulphate solution & Salt	--	482	2864	3346	Collection, Storage, Transportation & Sell to end user
18	Sodium Fluoride Solution & Salt	--	14	78	92	Collection, Storage, Transportation & Sell to end user
19	Potassium Fluoride Solution & Salt	--	100	0	100	Collection, Storage, Transportation & Sell to end user
20	Ammonium Chloride	C1	85	260	345	Collection, Storage, Transportation & Sell to end user
21	Dilute HCl (30%)	D2	0	4273	4273	Collection, Storage, Transportation & Sell to end user
22	Hydrogen Bromide HBr (25-28%)	--	0	3904	3904	Collection, Storage, Transportation & Sell to end user
23	Phosphorous oxychloride ($POCl_3$)	--	0	133	133	Collection, Storage, Transportation & Sell to end user
24	Phosphoric Acid	D2	0	1175	1175	Collection, Storage, Transportation & Sell to end user
25	Sodium Acetate	--	0	109	109	Collection, Storage, Transportation & Sell to end user
26	Ammonia	C1	0	1334	1334	Collection, Storage, Transportation & Sell to end user
27	Sodium	D2	0	386	386	Collection, Storage,

	Hypochlorite (NaOCl 8-10%) Solution					Transportation & Sell to end user

2.8.8.3 *The Committee, while considering the proposal on merits, recommended for the proposed amendment, but at the same time also desired to ascertain admissibility of the proposal.*

*****

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.	Sh. R.K. Singh	Member
3.	Dr Ajay Gairola	Member
4.	Dr. Y.V. Rami Reddy	Member
5.	Dr Tudi Indrasen Reddy	Member
6.	Dr J S Sharma	Member
7.	Shri S C Mann	Member
8.	Shri Ashok Agarwal	Member
9.	Dr T K Joshi	Member
10.	Shri S.K. Srivastava	Member Secretary