

Minutes of 33rd meeting of Expert Appraisal Committee (Industry-2) held during 22-24 January, 2018 at Indira Paryavaran Bhawan, Jorbagh Road, Ministry of Environment, Forest and Climate Change, New Delhi - 3

Day 1: 22nd January, 2018

33.1 Opening Remarks by the Chairman

33.2 Confirmation of the Minutes of the 32nd Meeting of the EAC (Industry-2) held on 20-22 December, 2017 at Indira Paryavaran Bhawan, New Delhi.

The EAC, having taken note that no comments were offered on the minutes of its 32nd meeting held on 20-22 December, 2017 at New Delhi, confirmed the same, except in respect of Agenda No.32.3.11 in view of the representation from the project proponent in this regard. Accordingly, the said agenda item was taken up for deliberations on correction in minutes of the meeting.

Agenda No.32.3.11

Expansion of Sugar Manufacturing unit and Co-generation unit Village Kundal, Taluka Palus, District Sangli (Maharashtra) by M/s Krantiagrani Dr. G.D. Babu Lad Sahakari Sakhar Karkhana Ltd - Correction in Minutes

(i) The project proponent vide letter dated 3rd January, 2018 has requested for minor correction in minutes of the EAC meetings for certain conditions, as per the details under:

S. No.	Condition in the MoM	Correction desired by the PP	Justification
1	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.	The effluent shall be treated in ETP having primary, secondary and tertiary treatment units. The treated water shall be used for own land irrigation and gardening purpose and shall not be discharged to other places.	ZLD is not proposed in the EIA, rather proposed to use treated water for land irrigation and gardening.
2	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	The effluent shall be treated in ETP having primary, secondary and tertiary treatment units.	MEE, ATFD & RO are usually installed in distilleries. It is proposed to install ETP in the EIA.

	stream shall be treated in the ETP and then through RO system.		
3	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.	To be deleted	This condition is not applicable to the sugar/ CPP project.
4	The company shall undertake waste minimization measures as below:- (a)..., (b)...., (c).... (d)Use of Close Feed system into batch reactors. (e)Venting equipment through vapour recovery system.	(d) and (e) to be deleted	Condition is not applicable to the project.
5	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.	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	Installation of web camera is not applicable to the project.

The EAC, after detailed deliberations, agreed to the proposal of the project proponent and recommended for correction in minutes of the EAC meeting on the above lines.

33.3 Environmental Clearance

Agenda No.33.3.1

Exploratory Drilling of 48 Wells in 13 ML Blocks of Western Onshore Basin by M/s ONGC Ltd at District Surat, Bharuch and Vadodara (Gujarat) - Environment Clearance

[IA/GJ/IND2/60010/2016, J- 11011/345/2016-IA II(I)]

33.3.1.1 The project proponent and their accredited Consultant M/s Oil and Natural Gas Corporation Limited, made a detailed presentation on the salient features of the project and informed that:

- (i) The proposal is for drilling 48 exploratory wells in 13 ML Blocks of Western Onshore Basin, in the districts of Surat, Bharuch and Vadodara (Gujarat) by M/s Oil and Natural Gas Corporation Limited.
- (ii) The project proposal was considered by the Expert Appraisal Committee (industry-2) in its 15th EAC meeting held on 10th November, 2016 and recommended Terms of reference (ToR) for the project. The ToR has been granted by the Ministry vide letter no. J-11011/345/2016-IA II (I) dated 31st January, 2017.
- (iii) All products are listed at S.N 1(b) of schedule of Environment Impact Assessment (EIA) Notification Under category 'A' and are appraised at central level by Expert Appraisal Committee (EAC).
- (iv) Land requirement will be ~ 110 m X 110 m for each exploratory well is required for proposed project. As drilling is temporary activity greenbelt is not applicable.
- (v) The estimated project cost is Rs.1082.70 crores (48 wells). The recurring cost dedicated to various Environmental Control Measures is about 5% of the total project cost wherein there is no limit to the expenditures incurred for the application of mitigation measures and adopting the best environmental practices.
- (vi) About 30-40 persons will be working in shifts at site. There is a possibility that local people will be hired on temporary basis, for miscellaneous work. It has been proposed to allocate Rs.27.00 crore @ 2.5% towards Corporate Social Responsibility
- (vii) There are no national parks, wildlife sanctuaries, biosphere reserves, Tiger/Elephant reserves, wildlife's corridors etc. within 10 km of the project site. Mahi, Vishwamitri, Narmada and Kim are flowing away from the 10 km of proposed wells.
- (viii) Ambient air quality monitoring was carried out at 10 locations during summer season (March to May) 2017 the baseline data indicates the average ranges of concentration of PM₁₀: 44.58 µg/m³ to 74 µg/m³; PM_{2.5}: 16.54 µg/m³ to 45 µg/m³; SO₂: 4 µg/m³ to 9.0 µg/m³; NO_x: 9 µg/m³ to 18.15 µg/m³; HC (as Methane): 980 µg/m³ to 1156 µg/m³. In addition, samples were collected and analysed for carbon-monoxide (CO), volatile organic compounds (VOCs), total hydrocarbons (THCs) and non-methanated hydrocarbons (NMHCs). These parameters are observed to be Non traceable in the study area. The results infer that air quality in the study area rural area stands fairly good. AAQ modeling study for point source identified are diesel generator sets at drill sites. These will be in operation for 24 hours a day. Emissions from the generators will consist of mainly PM₁₀, PM_{2.5}, NO_x, SO₂ and suspended particles. The concentration of SO₂ in the emitted gas will depend on the fuel source. Since diesel contains low values of sulphur, using diesel as fuel will lend to low SO₂ emissions. Emissions are expected during temporary well flaring in the event gas is discovered. The incremental GLC as a result of DG set operation are within the permissible limits as per the CPCB and NAAQS.
- (ix) Total water requirement is 25 m³/day which will be met from nearby ONGC source. It is expected that wastewater in the form of Drill cutting washing + Rig washing+ cooling etc shall be generated at an average rate of around 5 m³/day during the drilling operations from a single well.

Waste water will be discharged in HDPE lined evaporation pit, available at site and will be solar dried. Drilling is a temporary activity lasting for 25-60 days.

(x) The capacity of the DG set to be used for operating the rig and the circulation system is expected to be of 1240 HP (3 Nos, two running and one standby). Stack will be provided as per CPCB Norms to the proposed DG sets.

(xi) Detail of solid waste/hazardous waste generation and its management.

150 – 800 MT / well of drill cuttings shall be generated at site per well. This shall be stored in well-designed HDPE line pit at site. As water based mud will be used drill cuttings along with waste water are non-hazardous and will be disposed off as per MoEF&CC notification G.S.R 395 (E.) dated 4th April 2016. During the drilling approx. 200 litre of spent oil shall be generated per well and sent to an authorized recycler.

(xii) Public hearings for the proposed project has been conducted by Gujarat Pollution Control Board

District	Date of Public Hearing	Time & Venue for Public Hearing
Bharuch	1 st September, 2017	At 11.00 h at Limaj Primary School, Village: Limaj, Taluka : Jambusar District: Bharuch
Surat	13 th September, 2017	At 11.00 h at Orma primary school, Village: Orma, Taluka : Olpad, District : Surat
Vadodara	15 th September, 2017	At 11.00 h at GavasadPrathamikShala, Village: Gavasad, Taluka : Padra, District : Vadodara

(xiii) Details of certified compliance report submitted by RO, MoEF&CC: Certified compliance report no.5-26/2014 (ENV)/284 dated 16th August, 2016, pertaining to EC no. J-11011/431/2011-IA II(I) dated 25th June, 2014, for exploratory drilling of 67 wells in 23 blocks located in Vadodara, Bharuch and Surat districts

33.3.1.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project 'Oil & Gas Exploration in 13 ML Blocks' in a total area of 1456.58 sq km of Western Onshore Basin in the districts of Surat, Bharuch and Vadodara (Gujarat) promoted by M/s Oil and Natural Gas Corporation Ltd. For the present, 48 wells are proposed to be drilled covering an area of 110 m X110 m per location.

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).

The ToR for the project was granted on 31st January, 2017. Public hearing was conducted by SPCB on 1st September, 13th September and 15th September, 2017 in Bharuch, Surat and Vadodara respectively. Major issues raised during public hearing include employment opportunity,

land acquisition issues & land compensation and CSR issues such as drinking water facilities, school, road construction, fencing, hospital etc.

The water requirement per well location is estimated to be 25 m³/day proposed to be met mostly through tankers and/or nearby existing source of water. Waste water generated would be 15 cum/day during drilling operations, out of which 10 cum/day is proposed to be recycled after treatment to the desired extent. Remaining of about 5 cum/day shall be discharged to HDPE lined evaporation pit, available at site and then solar dried.

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.

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

- *The environmental clearance is subject to obtaining prior clearance from the wildlife angle including clearance from the Standing Committee of the National Board for Wildlife as applicable. Grant of environmental clearance does not necessarily implies that Wildlife Clearance shall be granted to the project and that their proposals for Wildlife Clearance will be considered by the respective authorities on their merits and decision taken.*
- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As 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. Domestic sewage shall be disposed off through septic tank/soak pit.*
- *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 PM₁₀, PM_{2.5}, SO₂, NO_x, CO, CH₄, HC, Non-methane HC etc.*
- *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, 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 H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S 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 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on Public Hearing issues 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. 33.3.2

Setting up APIs and Bulk drug manufacturing unit by M/s Otsuka Chemical India Pvt Ltd at SP-3, 10 &11, RIICO Industrial Area, Village Keshwana Rajpoot, Kotputli (Rajasthan) - Environmental Clearance

[IA/RJ/IND2/63827/2017, IA-J-11011/190/2017-IA II(I)]

33.3.2.1 The project proponent and their accredited Consultant M/s EQMS India Private Limited, made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for setting up APIs and bulk drug manufacturing unit by M/s Otsuka Chemical India Pvt. Ltd. at SP-3, 10 & 11, RIICO Industrial Area, Village Keshwana Rajpoot, Kotputli (Rajasthan).

(ii) The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 23rd EAC meeting held during 3-5 May, 2017 and recommended Terms of Reference (ToR) for the Project. The ToR has been issued by Ministry vide letter No. J-11011/190/2017-IA II(I)] dated 30th May, 2017.

(iii) All Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) are listed at S.N 5(f) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'B' and are appraised at Central Level by Expert Appraisal Committee (EAC) because of Interstate boundary of Rajasthan & Haryana at a distance of 2.38 km, NW

(iv) Existing land area is 26,800 sqm. Industry has already developed greenbelt in an area of 8850 m², thus covering an area of 33% of the total project area. There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km of the project site.

(v) The estimated project cost is Rs.150 Crores. Capital cost earmarked for pollution control measures is Rs.500 Lakhs and the recurring cost (operation and maintenance) will be about Rs.15 lakhs per annum. Total Employment will be 60 persons as direct & 40 persons indirect after expansion. It has been proposed to allocate Rs.375 lakhs @ 2.5% towards Corporate Social Responsibility.

(vi) Ambient air quality monitoring was carried out at 8 locations during 15th March 2017 to 15th June 2017 and the baseline data indicates the ranges of concentrations as: PM₁₀ (61-75 µg/m³), PM_{2.5} (26-34 µg/m³), SO₂ (6.0-7.2µg/m³) and NO₂ (13.9-19.3 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 75.90 µg/m³, 13.50 µg/m³ and 19.10 µg/m³ with respect to PM₁₀, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(vii) Fresh water requirement of 75 m³/day proposed to be met from borewell. Wastewater will be segregated into two streams as high TDS/high COD (HTDS) and low TDS/low COD (LTDS). The HTDS Effluent stream generated from process. HTDS Effluent will be treated through Stripper & MEE, after the treatment MEE distillate or condensate will go to ETP for further treatment and MEE concentrate to ATFD for drying, the dried salt will be sent to TSDF for final disposal. Stripper recovered fraction will be again sent to solvent recovery plant for recovery and reuse of solvent.

The distillate water will be treated in ETP along with LTDS effluent. The ETP treated effluent will be passed through MVRE/ RO for recovery of water for recycling. The MVRE/ RO reject will be send to MEE & ATFD. No process effluent will be discharged outside the plant premises. The inorganic hazardous residues will be sent to TSDF. The other source of wastewater generation will be domestic Sewage; which will be treated through activated sludge process (ETP). Treated water from ETP will be used for greenbelt development, Thus, Plant will be based on Zero Liquid discharge system.

(viii) Power requirement for the proposed projects will be 2MW proposed to be met through Jaipur Vidyut Vitran Nigam Ltd. Additionally 1.5 MW DG set will be are used as standby during power failure. Stack height will be provided as per CPCB norms.

(ix) 2 boilers of 10 TPH will be installed; one boiler will be kept as standby. Multi cyclone separator/ bag filter/ ESP with an adequate stack height as per CPCB norms will be installed to control the particulate emissions within the statutory limit of 115 mg/Nm³.

(x) Details of Process emissions generation for the proposed project and its management.

S.No	Stack	Stack Ht./ Dia. at sampling Port (m)	Velocity m/s	Stack Emission		Remarks
				Temp. °C	Flow m ³ /hr	
1.	Incinerator	30 Height & 0.8 M Dia	11.27 m/s	142 °C	15000 m ³ /h	Flue gases from incinerator will be scrubbed in caustic scrubber before venting through stack
2.	Boiler	50 M height & 1.0 m dia	11.07 m/s	100 to 120 °C	24000 m ³ /h	Multi Cyclone Separator
3.	Process Scrubber Set –I	7.25 M height & 0.5 M dia	0.294 m/s	50°C	194 m ³ /h	Process emission will be scrubbed in caustic/water/acid scrubber

4.	Process Scrubber Set –II	7.25 M height & 0.5 M dia	0.294 m/s	50	194 m ³ /h	before venting through stack
5.	Process Scrubber Set –III	7.25 M height & 0.5 M dia	0.294 m/s	50	194 m ³ /h	
6.	Process Scrubber Set –IV	7.25 M height & 0.5 M dia	0.294 m/s	50	194 m ³ /h	
7.	Process Scrubber Set –V	7.25 M height & 0.5 M dia	0.294 m/s	50	194 m ³ /h	
8.	Process Scrubber Set -VI	7.25 M height & 0.5 M dia	0.294 m/s	50	194 m ³ /h	

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

S.No.	Type of Solid Waste	Quantity	Treatment/ Disposal Method
Construction Phase			
1	Construction waste (debris)	It will be minimal	Debris will be used for internal road laying purpose & landscaping
Operation Phase			
2	Empty barrels (used for non-hazardous materials)	200 No./ Annum	Collected and sold to authorize recyclers after cleaning.
3	Scrap metals	20.0 MTPA	Collected and sold to authorize recyclers.
4	Used / Spent oil	1500 ltr/Annum	To be incinerated & ash will be sent to TSDF

(xii) Public Hearing is not applicable because site located in Notified industrial area developed by RIICO.

(xiii) Following are the list of proposed products:

List of Cephalosporin's API & Bulk Drugs produced by (GCLE)7-Phenyl acetamido 3-Chloromethylcephalosporanic acid p-methoxy benzyl ester), Pen-G & 7-ACA and its intermediate

S.No.	API	CAS NO.	Toxicity LC50/LD50	Name of Intermediate	Qty / Month
1.	Cefexime	79350-37-1	Oral LD50 (rat): >10 gm/kg;	(GVNE) 7-Phenyl acetamido 3-vinyl cephalosporanic acid p-methoxy benzyl ester (7-AVCA)7-Amino 3-Vinyl Cephalosporanic Acid Cefexime Methyl Ester	

2.	CefditorenPivoxil	117467-28-4	Oral LD50 (rat): 980 gm/kg	(GCTA) p-methoxybenzyl 7-phenylacetamido-3-[4-methylthiazol 5-yl]vinyl-3-cephem-4-carboxylate	22.5 MTPM
				(DTCA)7-amino (4-methylthiazol-5yl)3-vinyl 3-cephem 4-carboxylic acid	
				Cefditoren Acid/Sodium	
3.	Cefdinir	91832-40-5	>5600mg/kg mouse	(GVNE) 7-Phenyl acetamido 3-vinyl cephalosporanic acid p-methoxy benzyl ester	
				(7-AVCA)7-Amino 3-Vinyl CephalosporanicAcid	
				Potassium salt of Cefdinir	
4	Cefprozil	121123-17-9	Rat > 5000 mg/kg	(GPRE) p-methoxybenzyl 7-phenylacetamido-3-[propen-1-yl]-3-cephem-4-carboxylate	
				(7-APRA)7-amino-8-oxo-3-[(1Z)-prop-1-enyl]-5-thia-1-azabicyclo [4.2.0] oct-2-ene-2-carboxylic acid	
				Cefprozil Solvate	
5.	ACLE	113479-65-5	Not available.	Single stage starting from GCLE	
6.	Ceftaroline	400827-46-5	Oral LD50 (rat): 980 gm/kg	7β-amino-3-[4-(1-methyl-4-pyridinio)-2-thiazolylthio]-3-cephem-4-carboxylate Dihydrochloride.	
				Disodium 3-[4-(1-methyl-4-pyridinio)-2-thiazolylthio]-7β-[2-(5-phosphonateamino-1,2,4-thiadiazol-3-yl)-2(Z)-ethoxyiminoacetamido]-3-cephem-4-carboxylate.	

7.	Ceftibuten	118081-34-8	>10gm/kg oral rat	(ANCE) 7-Amino-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester
				(DANCE) De Acetyl 7-Amino-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester
				Protected Ceftibuten
8.	Cefpodoxime Proxetil	87239-81-4	>10000 mg/kg oral rat	(7-AMCA) 7-Amino-3-Methoxymethyl-3-Cephem-4-Carboxylic Acid
				Cefpodoxime Acid
9.	Cefcapene Pivoxil	117467-24-8	rat DOSE/DURATION : >5 gm/kg	(HACA) –3-Hydroxymethyl-7-aminocephalosporanic acid.
10.	Cefuroxime Axetil	64544-07-06	IC50: > 100 mg/l, 3 Hours, Activated sludge	Hydroxy- Cefuroxime aminocephalosporanic acid Cefuroxime Acid
Penicillin –G, Intermediates and its APIs				
S.No.	Name of API	CAS NO.	Toxicity LC50/LD50	Intermediate
1.	Tazobactam Sodium	89786-04-9	>5 gm/kg oral rat	DBTA
				DBSO
				PSOB
				Tazobactam Acid
2.	Sulbactam sodium	69388-84-7	Not available.	DBTA
3.	Sulbactam Pivoxil			DBSO
				PSOB Sulbactam acid
R&D Products				
R&D Products under above categories				2.5 MT/ Month

33.3.2.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project 'Setting up APIs and Bulk drug manufacturing unit' of total capacity 25 TPM (including R&D products of 2.5 TPM) by M/s Otsuka Chemical India Pvt Ltd in a total area of 26800 sqm at SP-3, 10 & 11, RIICO Industrial Area, Village Keshwana Rajpoot, Kotputli (Rajasthan).

The project/activity is covered under category B of item 5(f) 'All Synthetic organic chemicals industry' of schedule to the Environment Impact Assessment (EIA) Notification. However, due to applicability of general condition (interstate boundary within 5 km), the project requires appraisal at central level by sectoral Expert Appraisal Committee (EAC).

The ToR for the project was granted on 30th May, 2017. Public hearing is exempted under the provisions as per Para 7 Stage III (3) (i) (b) of the EIA Notification, 2006, as plant is located in notified Industrial Estate.

Earlier, the Ministry vide letter dated 10th December, 2015 granted EC to the expansion of Bulk drug manufacturing unit in two phases (Phase-I 200 to 450 TPA, Phase-II 450 to 700 TPA) in a total plot area of 88000 sqm, reported to be SP-3, 10&11, RIICO Industrial Area. The present proposal is for setting up a different unit in an area of 26800 sqm in the same plot area, which would also require amendment in the existing EC.

As per the existing EC, inter-state boundary (Rajasthan-Haryana) was informed to be at 4 km for applicability of general conditions. Now the same unit is reported to be at 2.38 km from the same boundary, which needs to be confirmed to decide appraisal of the proposal at central level.

Total fresh water requirement is estimated to be 75 cum/day proposed to be met from borewell. The required permission for total ground water withdrawal of 800 cum/day has been obtained from CGWA vide letter dated 11th May, 2015, which would also cater to the proposed expansion of existing bulk drug manufacturing unit in 2 phases. That also confirms the present proposal to be the expansion of the existing one and needs to be clarified.

33.3.2.3 The EAC, after deliberations, desired for a clarification in respect of independent existence of the proposed unit of capacity 25 TPM in an area of 26800 sqm in the total plot area of 88000 sqm, to confirm its no linkage with the existing unit and thus to arrive at the requirement of compliance status of the existing EC conditions. The proposal was therefore deferred.

Agenda No.33.3.3

Expansion of Specialty chemicals, Agrochemicals, Agrochemicals intermediates & Formulation in existing unit by M/s Hemani Intermediates Pvt. Ltd (Unit-II) at Plot No.3208, GIDC-Ankleshwar, District Bharuch (Gujarat) - Environmental Clearance

[IA/GJ/IND2/62687/2017, IA-J-11011/111/2017-IA II (I)]

33.3.3.1 The project proponent and their accredited Consultant M/s Aqua-Air Environmental Engineers Pvt Ltd, gave a detailed presentation on the salient features of the project & informed that:

(i) The proposal is for expansion of Agrochemicals & Agrochemical Intermediates (30 MT/Month to 740 MT/Month) manufacturing unit in Existing Premises of M/s Hemani Intermediates Pvt. Ltd. (Unit-II).

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

(iii) Proposed land area is 33,570 m². It is proposed to develop greenbelt in an area of 10,000 m² thus covering 30% of total project area. The estimated proposed project cost is Rs. 10.00 Crores. It has been proposed to allocate Rs. 0.5 Cr towards Corporate Social Responsibility. It is reported that No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance.

(iv) Ambient air quality monitoring is carried out at 9 locations during March 1, 2017 to May 31, 2017. The dispersion of pollutants in the atmosphere is a function of several meteorological parameters viz. temperature, wind speed and direction, mixing depths, inversion level, etc. The ambient air samples were collected and analyzed for Particulate Matter (PM₁₀), Particulate Matter (PM_{2.5}), Sulphur Dioxide (SO₂), Oxides of Nitrogen (NO_x), Ozone (O₃), Lead (Pb), Carbon Monoxide (CO), Ammonia (NH₃), Benzene (C₆H₆), Benzo (a) Pyrene (BaP), Arsenic (AS), Nickel (Ni), HC, & VOCs were monitored at site and nearby villages for identification, prediction, evaluation and assessment of potential impact on ambient air environment. The PM₁₀ values at all the locations in residential/rural areas ranged between 75.36 – 107.3 µg/m³ respectively in pre-monsoon season. Similarly, the values of PM_{2.5} varied in the range of 43.98 – 57.51 µg/m³. The PM₁₀ and PM_{2.5} concentrations at all the AAQM locations were primarily caused by local phenomena including vehicular activities and natural dust getting air borne due to manmade activities and blowing wind. The values of NO_x at all the locations in residential/rural areas were observed to be in the range of 18.25 – 23.05 µg/m³. The values of SO₂ at all the locations in residential/rural areas ranged between 16.42 – 20.42 µg/m³. The values of O₃ at all the locations in residential/rural areas ranged between 10.65– 11.19 µg/m³. At all the air quality monitoring locations in residential/rural areas, the values of NO_x, SO₂ & O₃ were observed to be within limits. The values of CO at all the locations in residential/rural areas ranged between 1.20 – 1.90 mg/m³. The values of NH₃ at all the locations in residential/rural areas BDL. The values of Ni at all the locations in residential/rural areas ranged between 10.48– 10.88 ng/m³. The values of VOCs at all the locations in residential/rural areas ranged between 0.3 – 1.2 ppm.

(v) Total water requirement will be 460 m³/day of which fresh water requirement of 365 m³/day and will be met from Industrial Estate water supply. Total water requirement will be 460 m³/day (Fresh: 365 m³/day + Recycled: 95 m³/day).

(vi) Total Industrial Effluent (205 KL/Day) will be generated. After segregation 25 KL/Day high COD incinerate in own site incinerator. 180 KL/Day treated in its own ETP & Then treated effluent goes to RO Plant. 95 KL/Day RO permeate recycle in Cooling tower feed and (85 m³/day) will be sent to MEE then 80 KL/Day from MEE shall sent to M/S. NCTL.5 KL/day from MEE shall be sent to ATFD .4 KL/DAY to incinerate from ATFD & 1 KL/day for TSDF.

(vii) Power requirement: Power required from DGVCL is 2500KVA. Standby power supply from D.G. set = Proposed: 1010 KVA * 2 Nos.

(viii) Unit will have 2 Nos. of Boiler, 1 Nos. of THF-I & II, 1 Nos. of Incinerator and 1 No. of D.G.Set. Multi Cyclone Separator with Bag Filter, Scrubber with a stack of height of 50m, 50m, 30m, 12 m will be installed for controlling the Particulates Matter (PM), SO₂ and Nox emissions.

(ix) Details of Process emissions generation and its management

Unit has 3 Nos. Process vent in existing unit and Unit will have 2 Nos. Process vent in proposed unit. Scrubber with a stack of height of 15m is installed for controlling HCl, HBr, Cl₂ and SO₂.

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

S. No.	Description	Source of wastes	Quantity			Waste Cat.	Nature of waste	Mode of Disposal
			Existing	Addition	Total			
1.	Discarded Containers	Raw material storage area	65 Nos./M	100 Nos./M	165 Nos./M	33.1	HDPE	Collection, Storage, Transportation, Decontamination & sold to authorized vendors
2.	Discarded Bags		0.45 MT/M	0.65 MT/M	1 MT/M	33.1		Collection, Storage, Transportation, Decontamination & sold to authorized vendors/reuse within premises
3.	Used Oil	Machine lubrication	15 lit/M	15 lit/M	30 lit/M	5.1	Oil & impurities	Collection, Storage, Transportation & sent to registered recycler
4.	Residue & Waste	In Process	7.5 MT/M	112.5 MT/M	120 MT/M	28.1	Organic	Collection, Storage, Transportation & sent for co-processing in cement industries or incineration
5.	ETP Sludge & MEE Salt	ETP	40 MT/M	210 MT/M	250 MT/M	35.3	Inorganic	Collection, Storage, Transportation & sent to common TSDF
6.	Incinerator ash	Incinerator	2 MT/M	8 MT/M	10 MT/M	37.2	Inorganic	Collection, Storage, Transportation & sent to common TSDF

(xi) Public Hearing is not applicable as plant is located in notified industrial estate, Ankleshwar, ToR amendment was conducted 28/07/2017 to exempt public hearing.

(xii) Company has not obtained Environmental Clearance of existing unit because unit was established before EIA Notification, 2006. Company has valid Consolidated Consent and Authorization (CC & A) for existing unit vide letter no. AWH-65178 dated: 23/09/2014 and valid up to 06/05/2019.

(xiii) Following are the list of proposed products:

S. No.	Product	Production Quantity (TPM)			CAS No.	LD50
		Existing	Additional	Total		
1	Meta Phenoxy Benzaldehyde	30	470	500	67-36-7	1222 mg/kg
2	Meta Phenoxy Benzaldehyde Alcohol	--	100	100	13826-35-2	Not Available
3	Bromo Nitro Benzene	--	25	25	586-78-7	Not Available
4	Meta Bromo Anisole	--	25	25	2398-37-0	Not Available
5	Lambda Cyhalothrin	--	30	30	91465-08-6	79 mg/kg
6	1 R Trans CMA Synthetic	--	50	50	52314-67-7	Not Available
7	1 R Trans CMA Synthetic – Catalyst	--	10	10	52314-67-7	Not Available
Total		30	710	740		

33.3.3.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project 'Expansion of Pesticides and pesticide specific intermediates' from 30 to 740 TPM by M/s Hemani Intermediates Pvt. Ltd (Unit-II) in a total area of 33750 sqm at Plot No.3208, GIDC Ankleshwar, District Bharuch (Gujarat).

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

The ToR for the project was granted on 30th May 2017. Public hearing is exempted under the provisions as per Para 7 Stage III (3) (i) (b) of the EIA Notification, 2006, as plant is located in notified Industrial Estate.

Total water requirement is estimated to be 460 m³/day, of which fresh water demand of 365 m³/day is to be met from Industrial Estate water supply. Total wastewater generation of 223 cum/day including the existing effluent of 90 cum/day and proposed effluent of 133 cum/day. Existing industrial effluent of 80 cum/day shall be treated in the existing ETP and discharged into deep sea through GIDC pipeline. Proposed industrial effluent of 125 cum/day shall be treated in ETP followed by MEE. MEE condensate shall be reused in plant premises. Total domestic effluent of 18 cum/day shall be treated in soak pit/ septic tank.

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 unit is reported to be established in 1993 i.e. before issue of the EIA Notification, 2006, and thus no prior EC is required. The project proponent has obtained Consent under Air/water Act and

the Hazardous Waste Rules, 2008 from the SPCB vide letter dated 7th November, 2014, amended on 9th August, 2017, which is presently valid up to 6th May, 2019.

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

- *Total production of pesticides shall include manufacturing at least 25% of bio-pesticides.*
- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *The effluent discharge of 80 cum/day, through GIDC pipeline to deep sea, shall conform to the standards prescribed under the Environment (Protection) Rules, 1986.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management, if any, 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 98% 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 365cum/day proposed to be met from MIDC supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.*
- *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.*
- *The company shall undertake waste minimization measures as below:-*
 - a) *Metering and control of quantities of active ingredients to minimize waste.*

- b) *Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
- c) *Use of automated filling to minimize spillage.*
- d) *Use of Close Feed system into batch reactors.*
- e) *Venting equipment through vapour recovery system.*
- f) *Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on public hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *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.*
- *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 and the effluent, shall be installed for measurement of flow/discharge and the pollutants concentration, and the emission and effluent monitoring data to be transmitted to the CPCB and SPCB server as per the directions of CPCB in this regard.*
- *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*
- *The energy sources for lighting purposes shall preferably be LED based. A minimum of 10-20% of the total power requirement for the industrial operations shall be met from non-conventional energy resources/solar supply.*

Agenda No.33.3.4

Setting up a Ammonium Nitrate Manufacturing Complex for the manufacture of Technical Ammonium Nitrate (1000 MTPD) & Ammonia (380 MTPD) by M/s Deepak Fertilizers & Petrochemicals Corporation Limited at Village Bagadia, Chaukimata, Rangiagarh, Tehsil Paradeep District Jagatsinghpur (Odisha) - Environmental Clearance

[IA/OR/IND2/71479/2017, J-11011/141/2017-IA II(I)]

33.3.4.1 The project proponent and their accredited Consultant M/s EQMS INDIA PVT LTD, New Delhi, made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for Setting up of a Ammonium Nitrate Manufacturing Complex for the manufacture of Technical Ammonium Nitrate (1000 MTPD) & Ammonia (380 MTPD) by M/s Deepak Fertilizers & Petrochemicals Corporation Limited at village Bagadia, Chaukimata, Rangiagarh, Tehsil Paradeep District Jagatsinghpur (Odisha).

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 23rd meeting EAC meeting held during 5th May 2017 and recommended Terms of References (ToR) for the Project. The ToR has been issued by Ministry vide letter No. J 11011/141/2017-IA.II (I); dated 10th July 2017.

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

(iv) Existing land area is 83.26 Acres. It is proposed to develop greenbelt in an area of 27 Acres thus covering 33% of the total project area. There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km of the project site. Mahanadi river, Santranala, Matianganala, Bay of Bengal is flowing at 5.9 Km, 1.83 Km, 4.7 Km, 5.9 Km in N, S, SW, S direction.

(v) The estimated project cost is Rs 1750 Cr. Total capital cost earmarked for pollution control measures is Rs 70.0 Cr and the recurring cost (operation and maintenance) will be about Rs. 15.50 Cr per annum. Total Employment will be Approx. 400- Skilled / unskilled persons as direct. It has been proposed to allocate Rs 20 Cr @ 2.5 % towards Corporate Social Responsibility.

(vi) Ambient air quality monitoring was carried out at 8 locations during 1st March 2017 to 31st May 2017 and the baseline data indicates the ranges of concentrations as: PM₁₀ (97-47 µg/m³), PM_{2.5} (48 - 19 µg/m³), SO₂ (16.2-7.0 µg/m³) and NO₂ (37.4-16.3 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 4.7 µg/m³, 1.9 µg/m³ and 10.5 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(vii) Total fresh water requirement is approx. 14400 KLD, m³/day proposed to be met from Taldanda Canal and will be stored in a reservoir before feeding to the treatment unit. Effluent will be treated through ETP based on de-nitrification system.

(viii) Power requirement 8.5 MWh (Phase-1) & 15 MWh (during Phase-2) will be met from Orrisa Power Transmission Corporation Limited (OPTCL). The Nitric Acid plant is also equipped with turbo generator coupled to air compressor and can generate 4.7-6 MW if required. DFPCL is exploring the possibility to put up 8MW, thermal Captive Power Plant having Steam Turbine Generator and have standby powers from the State Electricity Board grid.

(ix) Coal / Coke fired Boilers - 45 TPH X 2 nos. will be installed. Multi cyclone separator/ bag filter with a stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers.

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

Emission from	Pollutant	Control Measures
Process:	❖ Stacks emission: SO ₂ , HC, Ammonia, NO _x , CO ₂ .	❖ Water Scrubber+ ❖ Alkali Scrubber+ Abator

	❖ Fugitive emission: Primarily VOCs,	❖ Acid Scrubber + ❖ Alkali Scrubber+ ❖ Carbon Tower
Incinerator: Flue gases	❖ PM, SO ₂ , NO _x	❖ Ventury Scrubber+ Water Scrubber

(xi) Details of Solid waste/ Hazardous waste generation and its management: Proposed project does not generate solid wastes on continuous basis. However solid waste generated because of the following

- Spent Ion exchange resins – from DM plant
 - Oily cotton rags from maintenance activities
 - Filter media used for filtration of air / water / cutting or lubricating oil
- Empty chemical containers, drums Include NO_x abator used catalyst & Ammonia plant used catalyst.

(xii) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 13th October 2017.

33.3.4.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project 'Setting up Ammonium Nitrate Manufacturing Complex' of capacity 1140 MTPD (Technical Ammonium Nitrate Prill - 1000 MTPD, AN Melt - 140 MTPD) by M/s Deepak Fertilizers & Petrochemicals Corporation Limited in a part of the total area of 83.26 acres at village Bagadia, Chaukimata, Rangiagarh, Tehsil Paradeep District Jagatsinghpur (Odisha).

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

The ToR for the project was granted on 10th July 2017. Public hearing was conducted by SPCB on 13th October 2017.

Total fresh water requirement is estimated to be 14400 cum/day proposed to be met from Taldanda Canal and shall be stored in a reservoir before feeding to the treatment unit.

As per one of the additional conditions in the ToR, recommendations from the State CZMA have not been submitted. Their submissions regarding ZLD implementation and the mode of disposal, was also not found convincing. As such, the proposal is not in compliance of the ToR issued for the project.

33.3.4.3 *The EAC, after deliberations, noted that there was no clarity on supply/procurement of Ammonia as one of the feed stock for the final product (Ammonium Nitrate). On one side, the Committee was informed that for the present, Ammonia shall be transported through tankers from the storage facility at Paradeep Port, whereas at the same time the present proposal also includes manufacturing of Ammonia (380 TPD). The project proponent agreed for dropping the Ammonia*

manufacturing from the proposed scope of the project, which in any case, needs revision of the proposal accordingly.

To resolve the discrepancies and the proposal to be compliant with the ToR including want of recommendations from the State CZMA, the proposal was deferred.

Agenda No.33.3.5

Expansion of pigment manufacturing in existing unit by M/s Unity Organics Pvt Ltd at Plot No. 117//6, Ravi Industrial Estate, Ahmedabad-Mehsana Highway, Village Bileshwarpura, Po-Chhatral, Taluka Kalol, District Gandhinagar (Gujarat) - Environmental Clearance

[IA/GJ/IND2/60505/2016, J- 11011/377/2016-IA II(I)]

33.3.5.1 The project proponent and their accredited Consultant M/s Aqua-Air Environmental Engineers Pvt Ltd., gave a detailed presentation on the salient features of the project & informed that:

(i) The proposal is for Expansion of Pigments (15 MT/Month to 400 MT/Month) manufacturing unit in existing Premises of M/s Unity Organics Pvt. Ltd.

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

(iii) Proposed land area is 7,954 m². It is proposed to develop greenbelt in an area 2444 m², thus covering 30% of the total project area. The estimated proposed project cost is Rs.10.00 Crores. It has been proposed to allocate Rs. 0.5 Cr towards Corporate Social Responsibility. It is reported that No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km.

(iv) Ambient air quality monitoring is carried out at 9 locations during March 1, 2017 to May 31, 2017. The dispersion of pollutants in the atmosphere is a function of several meteorological parameters viz. temperature, wind speed and direction, mixing depths, inversion level, etc. The ambient air samples were collected and analyzed for Particulate Matter (PM₁₀), Particulate Matter (PM_{2.5}), Sulphur Dioxide (SO₂), Oxides of Nitrogen (NO_x), Ozone (O₃), Lead (Pb), Carbon Monoxide (CO), Ammonia (NH₃), Benzene (C₆H₆), Benzo (a) Pyrene (BaP), Arsenic (AS), Nickel (Ni), HC, & VOCs were monitored at site and nearby villages for identification, prediction, evaluation and assessment of potential impact on ambient air environment. The PM₁₀ values at all the locations in residential/rural areas ranged between 73.53 – 83.05 µg/m³ respectively in pre-monsoon season. Similarly, the values of PM_{2.5} varied in the range of 39.16 – 47.91 µg/m³. The PM₁₀ and PM_{2.5} concentrations at all the AAQM locations were primarily caused by local phenomena including vehicular activities and natural dust getting air borne due to manmade activities and blowing wind. The values of NO_x at all the locations in residential/rural areas were observed to be in the range of 10.64 – 15.32 µg/m³. The values of SO₂ at all the locations in residential/rural areas ranged between 12.36 – 18.15 µg/m³. The values of O₃ at all the locations in residential/rural areas ranged between 10.24 – 10.73 µg/m³. At all the air quality monitoring

locations in residential/rural areas, the values of NO_x, SO₂ & O₃ were observed to be within limits. The values of CO at all the locations in residential/rural areas ranged between 1.20 – 1.29 mg/m³. The values of NH₃ at all the locations in residential/rural areas ranged between 3.61 – 6.31 µg/m³. The values of Ni at all the locations in residential/rural areas ranged between 10.32– 10.62 ng/m³. The values of VOCs at all the locations in residential/rural areas ranged between 0.3 – 0.7 ppm.

(v) Total water requirement will be 215 m³/day of which fresh water requirement of 45 m³/day and will be met from Industrial Estate water supply. Total water requirement will be 215 m³/day (Fresh: 45 m³/day + Recycled: 170 m³/day).

(vi) Treated Effluent (170 KL/Day) will be reused in plant premises. Total water requirement will be 215 m³/day which is met through Industrial Estate water supply, tanker and reuse. The waste water generations will 184.4 m³/day. The effluent will be treated in ETP consists of primary treatment then it will be evaporated in MEE and MEE condensate (170 KL/Day) will be treated in secondary and tertiary treatment and treated effluent will be reused in plant premises. Domestic Waste water will be disposed by septic tank & soak pit.

(vii) Power requirement: Power required from GEB is 500 KVA (existing). Standby power supply from D.G. set (500 KVA) in emergency case (existing). Power required from GEB is 2000 KVA (total after expansion). Standby power supply from D.G. set (2000 KVA) in emergency case (total after expansion).

(viii) Unit will have 1 Nos. of Boiler, 1 Nos. of THF and 1 No. of D.G.Set. Multi Cyclone Separator with Bag Filter with a stack of height of 22m, 30m, 12 m will be installed for controlling the Particulates Matter (PM), SO₂ and No_x emissions.

(ix) Details of Process emissions generation and its management
Unit has 1 Nos. process vent in existing unit. Scrubber with a stack of height of 12m is installed for controlling HCL, Cl₂ and SO₂. No Additional process vent.

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

S. No.	waste	Category	Existing (TPM)	Additional (TPM)	Total (TPM)	Mode of Disposal
1	ETP Sludge	35.3	9	15	24	Collection, Storage, Transportation and Disposal to nearest TSDF site
2	Residue from Distillation	20.3	--	10	10	Collection, Storage, Transportation and co-processing in cement industries or dispose at Common Incineration Site
3	Discarded	33.3	15 #	18 #	33 #	Collection, Storage,

	Drum/containe r					Transportation and Sell to GPCB authorized Vendor
4	Used Oil	5.1	1.25 Lit.	2.25 Lit.	3.5 Lit.	Collection, Storage, Transportation and Sell to GPCB registered re-processor.
5	Process Waste	26.1	--	20	20	Collection, Storage, Transportation and co-processing in cement industries or disposal at Common Incineration Site
6	Spent Ammonium Carbonate	--	75	-75	0	--
7	MEE Salt	--	--	60	60	Collection, Storage, Transportation and Disposal to nearest TSDF site

(xi) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 02/11/2017 at 11:00 AM at Chhatral GIDC Industries Association Hall, First Floor, GIDC Shopping Center, GIDC Chhatral, Mehsana Highway Road, Ta. Kalol, Dist. Gandhinagar for the Proposed Expansion.

(xii) Company has not obtained Environmental Clearance of existing unit because unit was established before EIA Notification, 2006. Company has valid Consolidated Consent and Authorization (CC &A) for existing unit vide letter no. AWH-52504 dated: 21/11/2012 and valid up to 20/11/2017 and company has applied for renewal. Company was started in 2004.

(xiii) Following are the list of proposed products:

S. No.	Product	Existing Capacity (TPM)	Additional Capacity (TPM)	Total Capacity (TPM)	CAS No.	LD50
1.	Copper Phthalocynine Blue	15	285	300	147-14-8	The products are not toxic. LD 50 oral = 5000 mg/kg (tested on rats).
2.	Beta Blue	--	50	50	147-14-8	
3.	Alpha Blue	--	50	50	147-14-8	
4.	Ammonium Sulphate	--	450	450	7783-20-2	Acute oral toxicity 2840 mg/kg [Rat]
Total		15	385	400	--	--
By-Products						
4.	Spent Ammonium	75	-75	00	--	--

Carbonate					
-----------	--	--	--	--	--

33.3.5.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project 'Expansion of pigment manufacturing unit' from 15 TPM to 400 TPM by M/s Unity Organics Pvt Ltd at Plot No.117//6, Ravi Industrial Estate, Ahmedabad-Mehsana Highway, Village Bileshwarpura, Post-Chhatral, Taluka Kalol, District Gandhinagar (Gujarat).

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

The ToR for the project was granted on 29th April, 2017. Public hearing was conducted by the State Pollution Control Board on 2nd November, 2017.

Total water requirement is estimated to be 215 m³/day, of which fresh water demand of 45 m³/day is to be met through Industrial Estate water supply. Total wastewater generation is 184.4 cum/day. After treatment, 170 cum/day of water shall be utilized to meet the requirement for different industrial operations.

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 unit is reported to be established in 2004 i.e. before issue of the EIA Notification, 2006, and thus no prior EC is required. The project proponent has obtained Provisional Consolidated Consent and Authorization from the SPCB vide letter dated 19th January, 2018 which is presently valid up to 29th November, 2022.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*

- Solvent management shall be carried out as follows :
 - (i) Reactor shall be connected to chilled brine condenser system.
 - (ii) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - (iii) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 98% recovery.
 - (iv) Solvents shall be stored in a separate space specified with all safety measures.
 - (v) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - (vi) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - (vii) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- Total fresh water requirement shall not exceed 45 cum/day to be met from ground water and to be arranged by Industrial Estate. 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. Storm water drain shall be passed through guard pond.
- 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.
- 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 more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- All the commitments made regarding issues raised during the public hearing/ consultation meeting held on 2nd November, 2017 shall be satisfactorily implemented.
- At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on public hearing issues 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.*
- *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*
- *The energy sources for lighting purposes shall preferably be LED based. A minimum of 10-20% of the total power requirement for the industrial operations shall be met from non-conventional energy resources/solar supply.*

Agenda No. 33.3.6

Technical Pesticides Manufacturing Unit by M/s Samradhi Crop Chemicals at HD-20, 21, 22 & 23, UPSIDC Industrial Area, Sikandrabad, District Bulandshahr, (Uttar Pradesh) - Environmental Clearance

[IA/UP/IND2/62984/2017, IA-J-11011/76/2017-IA-II(I)]

33.3.6.1 *The project proponent did not attend the meeting. The proposal was, therefore, deferred.*

Agenda No. 33.3.7

Expansion of Sugar Plant from 3500 TCD to 10000 TCD and cogeneration unit (14 MW to 60 MW) and establishment of 120 KLPD distillery along with incineration boiler (5 MW) by M/s Mylar Sugars at Sy No 241/C3, 158/2, 251/a, 257/1, 248/1, 267/B, 248/B/1b, 263/2a, 269/C, 240/A, 247/A, 241/B, 243/A, 247/B, 247/D, 241/C1, 241/C2 of Birrabbi Village, 157/3, 157/1 at Village Kotihal, Taluka Hoovina Hadagali, District Bellary (Karnataka) - Environmental Clearance

[J-11011/136/2016- IA II(I), IA/KA/IND2/53369/2016]

33.3.7.1 The project proponent and their accredited Consultant M/s Environmental Health and Safety Consultants Pvt Ltd, made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for expansion of sugar Plant from 3500 TCD to 10000 TCD, 14 MW to 60 MW Cogeneration Unit and establishment of 120 KLPD distillery and also installation of incineration boiler to generate 5 MW Power at survey Number 241/C3, 158/2, 251/a, 257/1, 248/1, 267/B, 248/B/1b, 263/2a, 269/C, 240/A, 247/A, 241/B, 243/A, 247/B, 247/D, 241C1, 241/C2, of Birrabbi Village, 157/3, 157/1 of Kotihal village, Taluk Hoovina Hadagali, Bellary District (Karnataka).

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 14th EAC meeting held during 26-27 October, 2016 and recommended Terms of Reference (ToR) for the Project. The ToR has been issued by Ministry vide letter J-11011/136/2016-IAII(I) dated 17-01-2016.

(iii) All molasses based distillery are listed at S.No. 5(g), of Schedule of Environmental Impact Assessment (EIA) Notification under category (A) and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Existing land area is 64 acres and no additional area shall be required as the proposed expansion will be within the premises. It is proposed to develop greenbelt in an area of 33% i.e 21.5 acres out of 64 acres of area of the project

(v) The estimated project cost for expansion is Rs.545 Crores including land, building, machineries, etc. Total capital cost earmarked for pollution control measures is Rs.18.5 Crores and the recurring cost (operation and maintenance) will be about Rs.67.10 Lakhs per annum. Total Employment will be 800 persons as direct & 1000 persons indirect 550 persons for expansion. Industry proposes to allocate Rs.13.625 Crores @ 2.5 % towards Corporate Social Responsibility activities for period of 5 years.

(vi) As per Form-1, there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. located within 10 km of the project site. Tumbinakeri Reserved forest located opposite to the project site and Herada Block C Reserve forest located at 7.5 km. Hirehadagali lake located at 2.5 Km (NE), Tungabhadra river located at 6.5 km (NW).

(vii) Ambient air quality monitoring was carried out at 8 locations during December 2016 to February 2017 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (55 µg/m³ - 90µg/m³ -), PM_{2.5} (13 µg/m³ - 26.00 µg/m³), SO₂ (1.58 µg/m³ -4.03 µg/m³) and NO₂ (3.25 µg/m³ - 5.87 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.49 µg/m³, 0.473 µg/m³ and 1.069 µg/m³ with respect to PM₁₀, SO_x and NO_x with the installation of APC. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(viii) Total water requirement for the sugar and co-gen is 6146 m³/day out of which 5474 m³/day is from the reuse of condensate water during crushing Season, Fresh water requirement will be 672 KLD during season. Maximum fresh water requirement is 499 m³/day during off-season. For Distillery, water requirement is 1929 m³/day out of which 969 m³/day will be from utilisation of treated condensate water. Maximum fresh water requirement is 960 m³/day, will be met from Tungabhadra River

(ix) Effluent from the sugar and co-gen (Boiler blowdown/cooling Tower blow down/lab wastewater/WTP reject) of 879 KLD will be treated in the 1000 KLD ETP (500 KLD upgraded to 1000 KLD) and from distillery effluent/ (Condensate/spentlees/ washings) of 665 KLD will be treated through ETP/Condensate polishing unit of capacity 1000 KLD (500 KLD ETP will be upgraded TO 1000 KLD). Spentwash will be concentrated and used as fuel in the incineration boiler. The plant will be Zero Liquid discharge system.

(x) Power required during construction is 500 kwh which will be met from KPTCL. Power required for sugar and co-gen is during operation phase is 13.98 MW for season and during off season 4.52 MW it will be from Co-generation unit. For distillery, power required is 2.5 MW. 250 kVA, 625 kVA, are existing DG sets and 2 x 625 kVA, 1x1000 kVA DGs are proposed for the

expansion are with stack height of 15 m above the nearest working platform as per CPCB norms, which will be used as standby during power failure.

(xi) Existing unit has 100 TPH bagasse fired boiler ESP installed with stack height of 85 m. Additionally 150 TPH bagasse fired boiler will be installed with ESP with a stack height of 90 m and 32 TPH 70% concentrated spent wash and 30% Bagasse fired boiler will be connected with ESP chimney height 85 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm³ for the proposed boilers.

(xii) Process emissions generation from proposed 150 TPH bagasse fired boiler will be installed with ESP and 32 TPH 70% concentrated spent wash and 30% Bagasse fired boiler will be connected with ESP.

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

S. No	Solid waste	Quantity TPM	Method of collection	Method of Storage	Mode of disposal
Solid waste					
1	Bagasse	90000	Mechanical conveyor	Bagasse storage yard	Sent to cogeneration unit to use as fuel as boiler
2	Boiler- Ash	1050	Mechanical conveyor into common silo for further disposal	Ash storage yard	Fly ash brick manufacturing
3	Incineration Boiler Ash	252	Mechanical conveyor into common silo for further disposal	Ash storage yard	Mixed in required proportions and used as manure.
3	Press mud	12000		Storage yard	
4	Sludge from ETP	1.5	Sludge drying beds	Storage yard	
5	Yeast sludge	360	Mechanical conveyor	Storage yard	
6	Lime Grit	15	Mechanical screw conveyor	Storage yard	
7	Domestic solid waste	6.0	Collection bins	Segregated. Domestic organic solid waste will be composted, while the inorganic solid waste will be handed over to Gram Panchayat.	Nearby municipal agencies & recyclers.
Hazardous waste					
8	Used oil	50 lts	Stored in leak	Hazardous waste	Used as lubricants

S. No	Solid waste	Quantity TPM	Method of collection	Method of Storage	Mode of disposal
	from DG sets		proof sealed barrels	storage area	within the industry
9	Steam turbine oil waste	30 Lts			
10	Waste oil residue from ETP	40 Lts	Stored in leak proof sealed barrels	Hazardous waste storage area	

(xiv) Public hearing for the proposed project has been conducted by the State Pollution Control Board on 23rd October, 2017.

(xv) Following are the list of proposed products

Existing Products

S.No	Product	Quantity
1	Sugar	420 TPD
2	Power	14 MW/h
Byproduct		
3	Bagasse	1050 TPD
4	Press mud	140 TPD
5	Molasses	140TPD

Proposed Products

S.No	Product	Quantity
1	Sugar	1200 TPD
2	Power	65 MW /h (60 MW cogeneration + 5 MW from incineration boiler)
3	Ethanol Rectified spirit (RS)/ Ethyl alcohol (EA)/ Extra neutral Alcohol (ENA)	120 KLPD
By product		
4	Bagasse	3000 TPD
5	Pressmud	400 TPD
6	Molasses	400 TPD

33.3.7.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project 'Setting up 120 KLPD distillery, Expansion of Cogeneration Unit from 14 MW to 65 MW and Sugar plant from 3500 TCD to 10000 TCD' by Mylar Sugars Ltd in a total area of 64 acres at survey nos.241/C3, 158/2, 251/a, 257/1, 248/1, 267/B, 248/B/1b, 263/2a, 269/C, 240/A, 247/A, 241/B, 243/A, 247/B, 247/D, 241C1, 241/C2, of Birrabi Village, 157/3, 157/1 of Kotihal village, Taluk Hoovina Hadagali, District Bellary (Karnataka).

The project/activities are covered under category A of item 5(g) 'All Molasses based Distilleries', item 1(d) 'Thermal Power Plants' and item 5(j) 'Sugar industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 17th January, 2016. Public hearing was conducted by SPCB on 23rd October, 2017.

The present water consumption is reported to be 2116 cum/day to meet the requirement of sugar plant of 3500 TCD and cogeneration plant of 15 MW. The same is met through condensate recovery of 1672 cum/day and fresh water demand of 444 cum/day from Tungabhadra river.

Total water requirement for the sugar and co-generation is 6146 m³/day, out of which 5474 m³/day is from the reuse of condensate water during crushing season and fresh water demand shall be 672 m³/day during season. Maximum fresh water requirement is 499 m³/day during off-season. For distillery, water requirement is 1929 m³/day, out of which 969 m³/day shall be from utilisation of treated condensate water. Maximum fresh water requirement for distillery is 960 m³/day, proposed to be met from Tungabhadra river. The Water Resources Department of the State Government vide letter dated 16th September, 2014 has given permission to draw 3200 cum/day from the Tungabhadra river. That would adequately cater to proposed expansion of the sugar plant, co-generation plant and the distillery.

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 project proponent has obtained Consent under the Air/water Act from the SPCB vide letter dated 7th October, 2016, which is presently valid up to 30th June, 2021.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Total fresh water requirement shall not exceed 672 cum/day (during season), 499 cum/day during off-season and 960 cum/day (Distillery) proposed to be met from Tungabhadra river. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.*

- *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 the ETP and then through RO system.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The company shall undertake waste minimization measures as below:-*
 - (a) Metering and control of quantities of active ingredients to minimize waste.*
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
 - (c) Use of automated filling to minimize spillage.*
 - (d) Use of Close Feed system into batch reactors.*
 - (e) Venting equipment through vapour recovery system.*
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly least 2.5% along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *All the commitments made regarding issues raised during the public hearing/ consultation meeting held on 23rd October, 2017 shall be satisfactorily implemented.*
- *At of the total project cost shall be allocated for Enterprise Social Commitment based on public hearing issues 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.*
- *There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.*
- *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*

- *The energy sources for lighting purposes shall preferably be LED based. A minimum of 10-20% of the total power requirement for the industrial operations shall be met from non-conventional energy resources/solar supply*

Agenda No.33.3.8

Exploratory drilling of 11 wells for shale oil/shale gas by M/s Oil and Natural Gas Corporation Ltd in Cambay basin (Gujarat) - Environmental Clearance

[IA/GJ/IND2/64773/2016, J-11011/46/2016-IA II (I)]

33.3.8.1 The project proponent and their accredited Consultant M/s Kadam Environmental Consultant, made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for drilling of 11 exploratory wells for shale oil/shale gas in Cambay Basin by M/s Oil and Natural Gas Corporation Limited, Western Onshore Basin in the districts of Mehsana, Gandhinagar, Ahmedabad, Kheda and Bharuch (Gujarat).

(ii) The project proposal was considered by the Expert Appraisal Committee (industry-2) in its 5th EAC meeting held during 25th -26th February 2016 and recommended Terms of reference (ToR) for the project. The ToR has been issued by Ministry vide letter No. J-11011/46/2016-IA II (I) dated 6th December 2016. ONGC had made an online application on 18th May 2017 for amendment in ToR to include Gandhinagar District for public consultation as two wells were falling in Gandhinagar District. MOEF&CC had issued an amended ToR Letter J-11011/46/2016-IA II (I) on 30th August 2017.

(iii) All products are listed at S.N 1(b) of schedule of Environment Impact Assessment (EIA) Notification Under category 'A' and are appraised at central level by Expert Appraisal Committee (EAC).

(iv) Land requirement will be ~ 110 m X 110 m for each exploratory well is required for proposed project. As drilling is temporary activity greenbelt is not be applicable. As per Form-1, there are no national parks, wildlife sanctuaries, biosphere reserves, Tiger/Elephant reserves, wildlife's corridors etc. within 10 km. River/water body viz: Khari, Meshwo, Vatrak, Sabarmati, Dhadhar and Narmada are flowing within 10 km of proposed wells.

(v) The estimated project cost is Rs 366 crores (Total for 11 wells). The one-time expenditure for environmental management and mitigation is estimated to be approx. Rs.1, 12, 39,000 per well. Additional Rs 15, 00,000 will be spent for site restoration in case of no hydrocarbon discovery

(vi) About 60 persons will be working in shifts at site. There is a possibility that local people will be hired on temporary basis, for miscellaneous work. It has been proposed to allocate Rs.7,00,00,000 @ 2.5% towards Corporate Social Responsibility

(vii) Ambient air quality monitoring was carried out at 23 locations during summer season (March to May) 2017 the baseline data indicates the ranges of concentration of PM₁₀: 48 µg/m³ to 79 µg/m³; PM_{2.5}: 17 µg/m³ to 30 µg/m³; SO₂: BDL (3.7 µg/m³) to 10.4 µg/m³; NO_x: BDL (6.0 µg/m³) to

19.4 µg/m³; HC (as Methane): 980 µg/m³ to 1156 µg/m³; NMHC (ethane, propane, butane): BDL (24.4 µg/m³) to 38.0 µg/m³; VOC as xylene: Below detection limit of 17.4 µg/m³. AAQ modeling study for point source emission indicates that the maximum incremental GLCs after the proposed project would be 0.268 µg/m³, 5.9 µg/m³ and 0.268 µg/m³ for SO₂, NO_x and particulate matter respectively. These GLC's are expected to occur at a distance of 100 m from the source towards the North East direction. The resultant Concentration are within NAAQS.

(viii) Total water requirement is 25 m³/day proposed to be met from nearby ONGC source. It is expected that wastewater in the form of Drill cutting washing + Rig washing+ cooling etc shall be generated at an average rate of around 1 m³/day during the drilling operations from a single well. Waste water will be discharged in HDPE lined evaporation pit, available at site and will be solar dried. Approximately 400-600 m³ of water will be used for carrying out one hydro-fracturing job in the proposed wells which will be treated in ETP.

(ix) The capacity of the DG set to be used for operating the rig and the circulation system is expected to be of 1240 HP (3 Nos, two running and one standby). Stack will be provided as per CPCB Norms to the proposed DG sets.

(x) Detail of solid waste/hazardous waste generation and its management.

200-250 m³ / well of drill cuttings shall be generated at site per well. This shall be stored in well-designed HDPE lined pit. As water based mud will be used drill cuttings along with waste water are non-hazardous and will be disposed off as per MoEF&CC notification G.S.R 395 (E.) dated 4th April 2016. Used /waste Oil – During the drilling approx. 200 litre of spent oil shall be generated per well. This oil shall be sent to an authorized recycler.

(xi) Public hearings for the proposed project has been conducted by Gujarat Pollution Control Board

S. No	District	Date of Public Hearing	Time and Venue for Public Hearing
1	Bharuch	13.10.17	At 11.00 hrs at Nana padarni Jagya, Near Aachhod Sarvajanik Vikas Mandal Village: Aachhod, Taluka : Amod District: Bharuch
2	Mehsana	24.10.17	At 12.00 hrs at Gram Panchayat Kacheri, In front of Tower, Village: Ambasan, Taluka: Mehsana District: Mehsana
3	Ahmedabad	25.10.17	At 12.00 hrs at Nandej Dudh Utpadak Sahakari Mandali Limited, Opp. Gram Panchayat office, Village: Nandej, Taluka: Daskroi District: Ahmedabad
4	Gandhinagar	26.10.17	At 11.00 hrs at Ground of Gram Panchayat, Village: Piyaj, Taluka: Kalol District: Gandhinagar
5	Kheda	03.11.17	At 11.00 hrs at Kamla Mani Patel Vadi, 2 Part, Village: Nawagam, Taluka: Kheda, District: Kheda

33.3.8.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project 'Shale oil & gas exploration in 11 blocks' in a total area of 830 sq km of Cambay Basin in the districts of Mehsana, Gandhinagar, Ahmedabad, Kheda and Bharuch (Gujarat) promoted by M/s Oil and Natural Gas Corporation Ltd. For the present, 11 wells are proposed to be drilled covering an area of 110 m X110 m per location.

The project/activity is covered under category A of item 1(b) 'Offshore and onshore Oil and Gas Exploration, Development & Production' of the schedule to the Environment Impact Assessment (EIA) Notification under category 'A' and requires appraisal at central level by Sectoral Expert Appraisal Committee (EAC).

The ToR for the project was granted on 6th December, 2016, followed by amendment on 30th August, 2017. Public hearing was conducted by SPCB on 13th October, 24th October, 25th October, 26th October & 3rd November, 2017 in the districts Bharuch, Mehsana, Ahmedabad, Gandhinagar and Kheda respectively. Major issues raised during public hearing include employment opportunity, land acquisition, land compensation, and CSR issues such as drinking water facilities, school, road construction, fencing, hospital etc.

The water requirement per well location is estimated to be 25 m³/day proposed to be met mostly through tankers and/or nearby existing source of water. Waste water generated would be 15 cum/day during drilling operations, out of which 10 cum/day is proposed to be recycled after treatment to the desired extent. Remaining of about 5 cum/day shall be discharged to HDPE lined evaporation pit, available at site and then solar dried.

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.

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

- *The environmental clearance is subject to obtaining prior clearance from the wildlife angle including clearance from the Standing Committee of the National Board for Wildlife as applicable. Grant of environmental clearance does not necessarily imply that Wildlife Clearance shall be granted to the project and that their proposals for Wildlife Clearance will be considered by the respective authorities on their merits and decision taken.*
- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As 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. Domestic sewage shall be disposed off through septic tank/soak pit.*
- *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 PM₁₀, PM_{2.5}, SO₂, NO_x, CO, CH₄, HC, Non-methane HC etc.*
- *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, 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 H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S 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 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on Public Hearing issues 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.33.3.9

Development Drilling of 3 Wells and Establishment of Early Production System (one) at Nagayalanka in the Onland NELP-V Block KG-ONN-2003/1 by M/s Oil and Natural Gas Corporation Ltd (Andhra Pradesh) - Environmental Clearance

[IA/AP/IND/26062/2014, J-11011/410/2014-IA II (I)]

33.3.9.1 The project proponent and their accredited Consultant M/s Bhagavathi Ana Labs Pvt Limited, made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for development drilling of 3 Wells and establishment of one Early Production System at Nagayalanka in the Onland NELP-V Block KG-ONN-2003/1, Andhra Pradesh by M/s Oil and Natural Gas Corporation Ltd.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 28th Reconstituted EAC meeting held during 20th -21st January 2015 and recommended Terms of References (ToR) for the Project. The ToR has been granted by Ministry vide letter No.J-11011/410/2014-IA II(I) dated 31st January 2015.

Subsequently, based on the Field Development Plan submitted to MoPNG/DGH, area of operation reduced from 339.5 sqkm to 54.466 sqkm in the approval due to technical reasons. As a result, the scope of development drilling of 31 wells is reduced to development drilling of 3 Nos wells only along with the establishment of EPS (one no) at Nagayalanka field.

In view of the change of scope of work as mentioned above, an Amendment of ToR is sought on the Ministry Website on 4th Oct 2017. Further the reasons for seeking the amendment of ToR were duly presented to EAC on 22.12.2017 and EAC recommended for amendment of ToR.

(iii) All activities are listed at S.N. 1(b) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Industry is already/ will be developed Greenbelt in an area of 33 % i.e., 18 sq km out of 54.466 sq km of the project area. The estimated project cost is Rs.264 Crores. There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km. Krishna river is flowing at 3.6 km in the West.

(v) Ambient air quality monitoring was carried out at 8 locations during September 2017 to December 2017 and the baseline data indicates the ranges of concentrations as: PM₁₀ (35-51 µg/m³), PM_{2.5} (17-40.6 µg/m³), SO₂ (7.9-17.5 µg/m³) and NO₂ (10.3-25.6 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.6 µg/m³ with respect to NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(vi) Net water requirement for Drill mud preparation is 10-15 m³/d per well. 5-8 m³/d of water required for other associated activities and will be recycled. 2-4 m³/d water is required for domestic uses. For EPS operations, about 10m³/d of water is required.

(vii) Details of Solid waste/ Hazardous waste generation and its management: Drill Cuttings shall be disposed off as per the APPCB norms. Hazardous waste shall be sent to the authorized recyclers as per the statutory norms.

(viii) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 29th December, 2017.

(ix) The proposed products are as under:

S. No	Product	Quantity
1	Crude oil	379 m ³ /day
2	Gas	0.014 MMSCMD
3	Produced water	Max 15%

33.3.9.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project 'Onshore Oil and Gas Development and Production from 3 wells' by M/s Oil and Natural Gas Corporation Ltd in a total area of 54.466 sq km at Nagayalanka in the Onland NELP-V Block KG-ONN-2003/1 in District Krishna (Andhra Pradesh).

The project/activity is covered under category A of item 1(b) 'Offshore 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).

Earlier, ToR for the project was granted on 31st January 2015 for development drilling of 31 wells and establishment of one EPS at Nagayalanka in the Onland NELP-V- Block KG-ONN-2003/1 in District Krishna (Andhra Pradesh). The EAC in its meeting held on 20-22 December, 2017 has recommended for amendment in the ToR for reducing the scope of work from 31 wells to 3 wells and area of operations reduced from 339.5 sq km to 54.466 sq km. Public hearing was conducted by SPCB on 29th December, 2017.

Net water requirement for drill mud preparation shall be 10-15 m³/d per well and 5-8 m³/d for other associated activities. The used water shall be recycled in the process. About 2-4 m³/d water is required for domestic uses and 10m³/d for EPS operations.

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.

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

- *The environmental clearance is subject to obtaining prior clearance from the wildlife angle including clearance from the Standing Committee of the National Board for Wildlife as applicable. Grant of environmental clearance does not necessarily implies that Wildlife Clearance shall be granted to the project and that their proposals for Wildlife Clearance will be considered by the respective authorities on their merits and decision taken.*
- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As 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. Domestic sewage shall be disposed off through septic tank/soak pit.*
- *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 PM₁₀, PM_{2.5}, SO₂, NO_x, CO, CH₄, HC, Non-methane HC etc.*
- *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 10-15 cum/day, 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 H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S 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 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on Public Hearing issues 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.33.3.10

Installation of Mounded Storage Vessel (2 x 300 MT) by M/s Bharat Petroleum Corporation Limited at Solapur LPG Plant (Maharashtra) - Environmental Clearance

[IA/MH/IND2/71636/2016, IA-J-11011/3/2018-IA II(I)]

33.3.10.1 The project proponent and their accredited Consultant M/s ERM India Pvt., made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for expansion of LPG storage capacity at Solapur LPG Plant by M/s Bharat Petroleum Corporation Limited.

(ii) The project proposal was considered by the State Level Expert Appraisal Committee (SEAC) in its 129nd meeting held during 16-18 June 2016 and recommended Terms of References (ToR) for the Project. The ToR has been approved by SEAC vide MoM No-129.

(iii) All projects related to isolated storage & handling of hazardous chemicals is listed at S.N. 6(b) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'B'. However, the project is treated as category 'A' as General Condition has applied for this project (as the project site is located within 5 km of WLS), therefore are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Solapur LPG Plant is in operation since 1988. Since the plant was established prior to EC notification 1994, no EC clearance was obtained. The plant has a valid CTO (CTO No-BO/AST/R/EIC NO.PN-26534-15/HOD-05327 dated 25th April 2016) from Maharashtra Pollution Control Board (MPCB). BPCL LPG Plant also regularly submits the annual environment statement to MPCB.

(v) Existing Land area is 49.11 acres, additional land area is not required for proposed expansion. An approximately 1600 sq. m. (0.395 acres) land required for the proposed project

exists within the plant. Industry has already developed Greenbelt in an area of approx. 28.36 acres (58.94% of total plant area).

(vi) The estimated project cost is Rs 22.62 crores including existing investment of Rs 33.96 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 0.17 crores and the Recurring cost (operation and maintenance) will be about Rs 2.50 lakh per annum.

(vii) Manpower requirement for day to day operation of the plant is 100 including BPCL staff and contract workmen. No additional manpower is required for the proposed expansion. Industry proposes to allocate 2% of average net profit of last 3 years towards Corporate Social Responsibility.

(viii) Great Indian Bustard Sanctuary, Nannaj is located at approx. 2.8 km of the project site. River Sina river is flowing at a distance of 3.55 km in south direction.

(ix) Ambient air quality monitoring was carried out at 8 locations during October to December 2016 and the baseline data indicates the ranges of concentrations as: PM10 (57.6 - 77.9 $\mu\text{g}/\text{m}^3$), PM2.5 (30.2 - 39.7 $\mu\text{g}/\text{m}^3$), SO₂ (5.4 - 6.2 $\mu\text{g}/\text{m}^3$) and NO₂ (21.8 - 27.5 $\mu\text{g}/\text{m}^3$). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.027 $\mu\text{g}/\text{m}^3$, 5.819 $\mu\text{g}/\text{m}^3$ and 1.008 $\mu\text{g}/\text{m}^3$ with respect to PM10, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(x) Total quantity of water requirement during operation phase of the project is about 27.0 KLD out of which water requirement for domestic use is 10 KLD and water requirement for industrial use (e.g., hydro-testing, painting, chain conveyor operation, test batch and cooling tower) is 17 KLD. No additional quantity of water will be required for the proposed expansion unit. Water in the plant is supplied by Maharashtra Industrial Development Corporation (MIDC).

(xi) About 14 KLD of effluent is presently being generated from the process. This effluent is treated through ETP of 15 KLD capacity. Proposed expansion project will not generate additional quantity of effluent.

(xii) Power requirement at the plant is about 380 kVA which is met from Maharashtra State Electricity Board (MSEB). Further, the plant has three DG sets of 500 kVA, 250 kVA and 65 kVA as stand by to serve as alternative sources of power supply during power failure. No additional quantity of power will be required for the proposed expansion. Also, stack height of the existing three DGs set does not meet the CPCB norms. These DG sets will be provided with adequate stacks height (in accordance to CPCB norms).

(xiii) Fugitive emissions of LPG [mixture of Propane (C₃H₈) and Butane (C₄H₁₀)] are the major sources of air pollution (process emission) in LPG storage facilities and from static and dynamic joints and seals used in flanges, pumps, mixers, valve packing and connection joints. In order to minimize the fugitive emissions of LPG, the following measures will be incorporated at design stage:

- Minimum number of flanges, valves etc.;
- Provision of fire safe remotely operated valves (ROV);
- High grade gasket materials; and

- Usage of pumps with (single/double) mechanical seals.

(xiv) About 0.3 kg/day of paint sludge from painting booth, 500 litres (once in 5 years) of sludge from cleaning of LPG storage tanks (tank bottom sludge) and 180 kg/year of sludge from ETP is presently being generated at the plant. All these hazardous wastes are disposed at Common Hazardous Waste Treatment, Storage and Disposal Facility (CHWTSDF) at Ranjangaon, Pune. After proposed expansion, additionally 28 litres (once in 5 years) of tank bottom sludge will be generated from the plant and will be disposed at CHWTSDF at Ranjangaon.

The municipal waste generated from office work, canteens are collected systematically and disposed off at the MSW disposal site of Solapur municipality. No additional quantity of MSW will be generated after expansion.

(xv) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 13th June, 2017.

(xvi) The existing and proposed products:

Existing LPG Storage Tanks

Vessel No.	Product	Tank diameter (m)	Tank/ length (m)	Tank type	Tank Capacity
Existing LPG Storage Bullets					
1	LPG	4.0	23.0	Bullet	125 MT
2	LPG	4.0	23.0	Bullet	125 MT
3	LPG	4.0	23.0	Bullet	125 MT
4	LPG	4.0	23.0	Bullet	125 MT
Existing LPG Storage Sphere					
1	LPG	14.0	-	Sphere	650 MT
2	LPG	14.0	-	Sphere	650 MT

Proposed LPG Storage Tanks

Vessel No.	Product	Tank diameter (m)	Tank/ length (m)	Tank type	Tank Capacity
Proposed LPG Storage Bullets					
MSV001	LPG	5.0	37.5	MSV	300 MT
MSV002	LPG	5.0	37.5	MSV	300 MT

33.3.10.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project 'Modernization cum expansion of LPG storage and LPG bottling plant of 132 TMTA' through decommissioning of 4X125 MT LPG bullets

and installation of 2 x 300 MT MSVs by M/s Bharat Petroleum Corporation Limited in a total area of 49.11 acres at Solapur LPG Plant (Maharashtra).

The project/activity is covered under category B of item 6(b) 'Isolated storage & handling of hazardous chemicals' of schedule to the Environment Impact Assessment (EIA) Notification. However, due to applicability of General condition (located within 5 km of GIB Nannaj Wild Life Sanctuary) and the project requires appraisal at central level by sectoral Expert Appraisal Committee (EAC).

The ToR for the project was granted SEIAA in its 129nd meeting held during 16-18 June, 2016. Public hearing was conducted by SPCB on 13th June, 2017.

Total water requirement during operation phase of the project is about 27.0 cum/day out of which water requirement for domestic use is 10 cum/day and water requirement for industrial use (e.g., hydro-testing, painting, chain conveyor operation, test batch and cooling tower) is 17 cum/day, proposed to be met from Maharashtra Industrial Development Corporation (MIDC). No additional quantity of water will be required for the proposed expansion unit.

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.

Solapur LPG Plant is in operation since 1988. Since the plant was established prior to EIA Notification 1994, no prior EC is required. The plant has a valid CTO (CTO No- BO/AST/R/EIC NO.PN-26534-15/HOD-05327 dated 25th April 2016) from Maharashtra Pollution Control Board (MPCB).

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 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 2.5% of the total project cost shall be allocated for Enterprise Social Commitment and the details along with time bound action plan shall be 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 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 equipments 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 has to be undertaken on regular basis to control the polluting particles.*

Day 2: 23rd January, 2018

Agenda No.33.3.11

Expansion in bulk drug manufacturing Plant by M/s Shree Jee Laboratory Pvt Ltd at Plot No.C-24 & 25, RIICO Industrial Area, Village Sotanala, Tehsil Behror, District Alwar (Rajasthan) - Environmental Clearance

[IA/RJ/IND2/71946/2017, IA J-11011/505/2017-IA-II(I)]

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

(i) The proposal is environmental clearance to the project for expansion in bulk drug manufacturing [API (65 to 72 TPA) & Steroid (5 to 8 TPA)] Plant at Plot No. C-24 & 25, RIICO Industrial Area, Sotanala, Behror, District Alwar (Rajasthan) by M/s. Shree Jee Laboratory Pvt. Ltd.

(ii) The Standard Terms of References (TOR) for the project has been issued by Ministry vide letter dated 16th November, 2017.

(iii) This project falls under Category "B", Project or Activity-5 (f) but as it attracts the General Condition {Interstate Boundary of Haryana – Rajasthan} within 5 km from the plant boundary, therefore this project falls under Category "A" and requires Environmental Clearance from MoEFCC, New Delhi.

(iv) Ministry had issued EC earlier vide letter no. J-11011/176/ 2014- IA II (I) dated 25th June, 2015 for the Bulk drug manufacturing (65 TPA API & 5 TPA Steroid) unit to M/s. Shree Jee Laboratory Pvt. Ltd.

(v) Existing land area is 9478 sqm (2.34 acres), additional 8202 sqm (2.02 acres) land will be used for proposed expansion. It is proposed to develop greenbelt in an area of 33% i.e. 5827 sqm (1.44 acres) out of 17680 sqm (4.37 acres) of area of the project. The estimated project cost is Rs. 120 Crores including existing investment of Rs. 100 crores. Total capital cost earmarked for pollution control measures for expansion project is Rs. 50 Lacs and the Recurring cost (operation and maintenance) will be about Rs. 50 Lacs per annum.

(vi) Total Employment will be 150 persons as direct & 80 persons indirect after expansion. It has been proposed to allocate Rs. 50 Lacs @ of 2.5 % towards Corporate Social Responsibility. There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Two seasonal rivers Sota Nadi & Sabi Nadi are flowing at a distance of 0.5 km & 3.2 km in North & SSE direction respectively.

(vii) Ambient air quality monitoring was carried out at 8 locations during Post Monsoon Season, 2017 and the baseline data indicates the ranges of concentrations as: PM₁₀ (62.6 to 96.3 µg/m³), PM_{2.5} (32.5 to 48.8 µg/m³), SO₂ (7.8 to 16.7 µg/m³) and NO₂ (11.6 to 23.5 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed

project would be 0.58 µg/m³, 0.49 µg/m³ and 0.72 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(viii) Total water requirement is 131 m³/day of which fresh water requirement of 50 m³/day and will be met from RIICO (Rajasthan State Industrial Development and Investment Corporation). Effluent of 84 KLD from process and domestic activities will be treated in ETP and stripper. The plant will be based on Zero Liquid discharge system.

(ix) Power requirement after expansion will be 2.0 MW including existing 1.5 MW and will be met from Rajasthan Rajya Vidyut Utpadan Nigam Limited (RVUNL). Existing unit has 2 nos. of DG sets of 500 KVA & 250 KVA capacity each, additionally 750 KVA DG set is used as standby during power failure. Stack (height 19 m) will be provided as per CPCB norms to the proposed DG set of 750 KVA in addition to the existing DG sets of 500 KVA & 250 KVA which will be used as standby during power failure.

(x) Existing unit has 1 & 2 TPH Bio Briquette & Husk fired boiler. Additionally, 2 TPH Bio Briquette & Husk fired boiler will be installed. Bag filter with a stack of height of 36 m is already installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boilers.

(xi) Details of Process emissions generation and its management

Process- All the process will be carried out in a closed system. All reactors will be equipped with primary and secondary condensers/ heat exchangers for mitigation of evaporation of volatile organic substance. If there is any operation in which there are chances of toxic fumes generation, they will be passed through scrubber system for neutralizing the toxicity.

Boiler- Bag filter is being/will be installed to maintain the emissions within permissible limits.

D.G. sets are being/ will be provided with adequate stack height.

Online monitoring system with boiler stack has been/ will be installed.

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

- ETP Sludge & MEE Salt will be sent to TSDF.
- Spent oil will be sent to the authorized recycler/re-processors.
- Provisions are in place to send the hazardous waste to TSDF.
- The ash is being/will be utilized primarily in cement or brick manufacturing industry.

(xiii) Public Hearing: - The project falls in notified industrial area. As per OM dated 04th April, 2016 regarding exemption from Public consultation for the projects/activities located within the Industrial Estate/Parks issued by MoEFCC New Delhi, public hearing is not required for the project of synthetic drug.

(xiv) The status of compliance of earlier EC was obtained from RO, MoEFCC, Lucknow vide file no. IV/ENV/ R/ IND-152/ 891/ 2015 dated 29.12. 2017.

(xv) The existing and proposed products:

Existing Product

S. No.	PRODUCT	CAPACITY (TPA)
A	Synthetic Drugs API	

1	Moxifloxacin Hydrochloride	20.3
2	Cilnidipine	1.0
3	Silodosin	0.5
4	Montelukast Sodium	5.0
5	Fexofinadine hydrochloride	6.0
6	Linezolid	20.0
7	Escitalopram	1.0
8	Etizolam	0.1
9	FlupentixolDihydrochloride	0.5
10	Besifloxacin Hydrochloride	0.5
11	Granisetron Hydrochloride	0.1
12	AzilsartanMedoxomil Potassium	10.0
TOTAL		65.0
B	Steroid	
1	Finasteride	0.6
2	LotepridnolEtabonate	0.35
3	Mefipristone	3.0
4	Deflazacort	0.8
5	Ulipristal Acetate	0.25
TOTAL		5.0

Proposed products

S. No.	PRODUCT	CAPACITY (TPA)
A	Synthetic Drugs API	
1	Moxifloxacin Hydrochloride	72 TPA
2	Cilnidipine	
3	Silodosin	
4	Montelukast Sodium	
5	Fexofinadine hydrochloride	
6	Linezolid	
7	Escitalopram	
8	Etizolam	
9	FlupentixolDihydrochloride	
10	Besifloxacin Hydrochloride	
11	Granisetron Hydrochloride	
12	AzilsartanMedoxomil Potassium	
13	Amitriptyline hydrochloride	
14	Teneligliptin hemipentahydrobromide hydrate	
15	Nitrofurantoin monohydrate	
16	Nitrofurantoin macrocrystals	
17	Ranolazine	
18	Clomipramine hydrochloride	
19	Sitagliptin Phosphate/Hydrochloride	
20	Leuprolide Acetate	
21	Terbinafine Hydrochloride	
22	Levosulpiride	

23	Rifaximin		
24	Telmisartan		
25	Valsartan+Sacubitril complex		
26	Sacubitril Sodium		
27	Methylcobalamin		
28	Etoricoxib		
29	Efonidipine Hydrochloride ethanolate		
30	Azelnidipine		
31	Nadifloxacin		
32	Bromopride		
33	Seratrodast		
34	Fenticonazole nitrate		
35	Folic acid		
36	Clindamycin Hydrochloride		
37	Haloperidol/ Haloperidol decanoate		
38	Sugammadex Sodium		
39	Verapamil Hydrochloride		
40	Lifitegrast		
41	Varenicline Tartrate		
B	Steroid		
1	Finasteride		8.0 TPA
2	LotepridinolEtabonate		
3	Mefipristone		
4	Deflazacort		
5	Ulipristal Acetate		
6	Dydrogesterone		
7	Progesterone		

33.3.11.2 During deliberations, the EAC noted the following:-

The proposal is for environmental clearance to the project for expansion of bulk drugs manufacturing plant from 70 TPA to 80 TPA [APIs from 65 to 72 TPA (products from 12 to 41), Steroid from 5 to 8 TPA (products from 5 to 7)] by M/s Shree Jee Laboratory Pvt Ltd in a total area of 17680 sqm at Plot No. C-24&25, RIICO Industrial Area, Sotanala, Behror, District Alwar (Rajasthan).

The project/activity is covered under category B of item 5(f) 'Synthetic Organic Chemicals Industry (Bulk drugs and intermediates)' of Schedule to the Environment Impact Assessment Notification, 2006. However, due to applicability of general condition (within 5 km of Interstate Boundary of Haryana – Rajasthan), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The Standard ToR for the project was granted on 16th November, 2017 with public hearing. However, as provided under this Ministry's OM dated 10th December, 2014, the project is

exempted from public hearing/consultation due to its location within the notified industrial area of RIICO.

Total estimated water requirement is 131 cum/day, which includes fresh water demand of 50 cum/day proposed to be met from the water supply vested with RIICO. Necessary permission in this regard was obtained from RIICO vide their letter dated 13th November, 2014.

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.

Ministry had earlier issued EC vide letter dated 25th June, 2015 for Bulk drug manufacturing unit (65 TPA API & 5 TPA Steroid) to M/s Shree Jee Laboratory Pvt. Ltd. The monitoring report on compliance status of EC conditions has been forwarded by the Regional Office at Lucknow vide their letter dated 29th December, 2017, mentioning about the proposed expansion not taken up due to sluggish market demand of the products.

Consent to Operate for the present capacity of 65 TPA API & 5 TPA Steroid has been obtained from the Rajasthan PCB vide letter dated 3rd November, 2016, which is presently valid up to 30th June, 2021.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows :*
 - (a) *Reactor shall be connected to chilled brine condenser system.*
 - (b) *Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
 - (c) *The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 98% 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 50 cum/day to be met through RIICO water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
 - *Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.*
 - *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.*
 - *The company shall undertake waste minimization measures as below:-*
 - (i) *Metering and control of quantities of active ingredients to minimize waste.*
 - (ii) *Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
 - (iii) *Use of automated filling to minimize spillage.*
 - (iv) *Use of Close Feed system into batch reactors.*
 - (v) *Venting equipment through vapour recovery system.*
 - (vi) *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 more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
 - *At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment. 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.*
 - *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*
 - *The energy sources for lighting purposes shall preferably be LED based. A minimum of 10-20% of the total power requirement for the industrial operations shall be met from non-conventional energy resources/solar supply.*

Agenda No.33.3.12

Expansion of Ethylene capacity along with new product diversification by M/s Haldia Petrochemicals Limited, Haldia at Tehsil Sutahata-I, Haldia, District East Medinipur (West Bengal) - For Environmental Clearance

[J-11011/194/2016- IA II(I) (IA/WB/IND2/67219/2016)]

33.3.12.1 The project proponent and their accredited Consultant M/s ERM India Pvt., made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project 'Expansion/addition of Naphtha cracking facility and other petrochemical products along with related facilities at Tehsil Sutahata-I, Haldia, District East Medinipur (West Bengal) by M/s Haldia Petrochemicals Limited, Haldia.

(ii) The proposed project includes maximum utilization of existing cracking capacity leading to additional production of ethylene (From 700 KTA to 770KTA). The additional yield of ethylene and propylene will lead to manufacturing of additional volumes of existing products by suitable augmentation/new addition in downstream production capacity. It is also proposed to set-up new manufacturing units to produce new products/byproducts using existing intermediate streams and/or input materials sourced from domestic/international market. The existing products whose production capacity is proposed to be increased are the following:

- High Density Polyethylene (HDPE)
- Butadiene
- Benzene
- Mixed Butane
- Cyclo Pentane
- Pyrolysis Gasoline
- Motor Spirit
- Carbon Black Feedstock
- C6 Raffinate

The new products and by-products that are proposed to be manufactured after the proposed expansion are the following:

- Butene-1
- Methyl Tert Butyl Ether (MTBE)
- Vinyl Acetate Ethylene (VAE)
- Phenol
- Acetone
- Polybutylene Terephthalate (PBT)
- Tetrahydrofuran (THF)

The facility is located at Haldia and operated by Haldia Petrochemicals Limited.

(iii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in the 13th EAC (Industry -2) meeting held on 26th September, 2016 and recommended Terms of Reference (ToR) for the Project. The ToR has been issued by Ministry Vide Letter dated 30th November, 2016.

(iv) All projects related to petrochemical complexes (industries based on processing of petroleum fractions & natural gas and/or reforming to aromatics) and Petrochemical based processing (processes other than cracking & reformation and not covered under the complexes) are listed in S.N. of 5 (c) and 5(e) of Schedule of Environment Impact Assessment (EIA) Notification under Category "A" and are appraised at Central Level by Expert Appraisal Committee (EAC).

(v) Ministry had issued EC earlier vide letter No. J-11011/176/2007-IA II (I) dated 28th June, 2007 and corrigendum vide Letter Number J.11011/176/2007 – IA II(I) dated 24th August, 2007 for expansion from 520KTA to 700KTA to M/s Haldia Petrochemicals Limited in expansion case.

(vi) The existing land area is 453 ha, and no additional land is required for the expansion. An approximately 30.63 ha land required for the proposed project exists within the facility. Industry has already developed Greenbelt in an area of 103 ha out of 453 ha of area of the project. The estimated project cost is INR 4,310 crores. Total project cost after expansion becomes 11935 crores including existing investment of Rs. 7625 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.234.26 Cr. (As on 31.03.2017) and the recurring cost (operation and maintenance) will be about Rs.15.21 crore per annum (FY 2016-17).

(vii) Total employment will be for 40-50 skilled persons as direct and about 100-150 indirect after expansion. Industry has allocated a budget of 7.79 Rs. Cr. towards Corporate Social Responsibility for FY 2017-18 in line with the applicable clauses of the Companies Act 2013. There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves/Tiger/Elephant Reserves, Wildlife Corridors, etc. within 10 km from the project site. River Hooghly is flowing at a distance of 1.9km in East direction.

(viii) Ambient air quality monitoring was carried out at 8 locations during October, 2016 to January, 2017 and later again sampling was conducted for a month during October- November 2017 for Particulate Matter PM_{10} . The baseline data based on monitoring in Oct-Nov 2017 for PM_{10} is 49.8 – 67.9 $\mu g/m^3$. The baseline monitoring for other parameters based on monitoring during October -16 to January-17 indicates that ranges of concentrations $PM_{2.5}$ (47-61 $\mu g/m^3$), SO_2 (7-12 $\mu g/m^3$) and NO_x (31-43 $\mu g/m^3$), respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLC's after the proposed project would be 0.21 $\mu g/m^3$, 1.02 $\mu g/m^3$ and 4.39 $\mu g/m^3$ with respect to PM , SO_x and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(ix) Additional water requirement is 2.57 MGD which will be met from Geonkhali Water Supply System. Approximately 1000 m^3/day of process effluent will be treated through an existing operational Integrated Wastewater Treatment Plant of capacity 4,090 m^3/day of process effluent and sanitary effluent (Process Effluent: 3,600 m^3/d ; Sanitary Effluent: 490 m^3/d).

(x) Additional steam and power requirement after expansion will be 172.25 TPH and 19 MW respectively. The additional power requirement after expansion will be met through proposed Captive Power Plant (CPP) having 3 X 120 TPH steam generation capacity and 1X35 MW power generation capacity. Existing Unit has one emergency DG set of 800KVA capacity. Additional DG sets have not been proposed.

(xi) Existing unit has installed capacity of 116 MW Power and 480 TPH SHP Steam (2 x 34.5 MW GTs , 2 x 120 TPH (SHP Steam) HRSGs, 2 x 120 TPH Aux Boilers, 1 x 33 MW CSTG, 1 x 14 MW BPSTG) using a mix of fuels like fuel grade naphtha, in-house generated residual fuel gas and Carbon Black Feedstock. An Electrostatic Precipitator with a stack height of 140m will be installed for controlling the Particulate Matter emissions within statutory limits of 30mg/Nm³ for proposed 3X120TPH coal fired boilers respectively.

(xii) Details of process emissions from proposed units and its management

S No.	Units	Emission
1.	Ethylene Capacity Expansion in Naphtha Cracker Unit	Cracker Heater Flue Gas during normal; operations: About 90 TPH at 105-110°C majorly containing N ₂ , O ₂ , CO ₂ and H ₂ O. Major pollutants are: <ul style="list-style-type: none"> • NO_x- 80ppmv @ 3 Mol%O₂ (dry) • CO- 9-11ppmv @ 3 mol %O₂ (dry) • Hydrocarbons-6-11ppmv • Particulates-5-10ppmw • SO₂-Nil Gas Emission during decoking:60-90 TPH at 250°C with characteristic as: <ul style="list-style-type: none"> • NO_x :20-25 ppmv@3 mol %O₂ (dry) • CO:10-25 ppmv@3 mol%O₂(dry) • Hydrocarbons:5010ppmv • Particulates-5-10ppmw Acetylene converter regeneration off gas MAPD Converter Regeneration off gas
2.	Butene -1 Plant	Methanol Stripper Purge -50Nm ³ /hr, Stripper purge gas 53Nm ³ /hr, C4 Selective Hydrogenation Catalysts treatments 3000Nm ³ /hr (1 day per 2.5 years)
3.	MTBE Plant	Hydrocarbons (especially C4) – 400 ppm, T=43°C, Density= 990 kg/m ³ , pH=6.8-8.5
4.	Phenol and Acetone Plant	Spent air- 31,000Nm ³ /hr Vent gas- 60 Nm ³ /hr MSHP Vent Gas 30Nm ³ /hr
5.	HDPE Plant	Flaring load -135 ton/hr (in emergency situation)
6.	Pyrolysis Gas Hydrogenation Unit	Off-gas composed of Hydrogen (8.9%), H ₂ S (9.3%), Methane (23.7%), C3-C4 (5.8%), Cyclopentane (28.5%), Pentane (16.7%), Benzene (4.1%), Toluene (2.8%)
7.	Coal based Captive Power Plant	Particulate Matter -30mg/Nm ³ , NO _x and SO ₂ – 100mg/Nm ³

Management of the emissions:

- Stack of 40 m with furnace of Naphtha Cracker Unit;
- Stack Height of 140 m with Captive Power Plant;
- An ESP with 99% efficiency to reduce PM emissions that will achieve outlet concentration of 30mg/Nm³;
- Limestone dosing in boiler furnace to limit emission of SO₂ that is expected to achieve 30-70% reduction¹ and will keep the emission level of SO₂ to 100 mg/Nm³; and
- Boiler design would be Circulating Fluidised Bed Combustion (CFBC) type with relatively low temperature (850 – 900°C) to reduce NO_x emission to 100 mg/Nm³;

(xiii) Details of solid/hazardous waste generation from proposed units and its management

S. No	Units	Type of waste	Quantity
1.	Ethylene Capacity Expansion in Naphtha Cracker Unit	Spent Catalyst and Molecular Sieves	Quantity to remain unchanged, frequency may change
2.	Butene-1	MTBE Reactor Catalyst (Styrene divinyl benzene copolymer/Sulfonic acid/Water)	20400 kg/2 years
3.		Catalyst beds from MTBE Catalytic Distillation (Styrene divinyl benzene copolymer/Sulfonic acid/Water)	18700 kg/4 years
4.		Resins from guard pots (Styrene divinyl benzene copolymer/Sulfonic acid/Water)	2400kg / year
5.		Resins from guard pots (Styrene divinyl benzene copolymer/Sulfonic acid/Water)	2400kg / year
6.		Phenol and Acetone	Spent catalyst from phenol resin treater
7.	Polybutylene Terephthalate & THF	PBT	10-20k/day
		Oligomers Prepolymer with steel sieves	6kg/day
		Polymer with steel sieves	8-12kg/day
		Side stream THF column	2-5 kg/day
			2000-3000kg/day
8.	Pyrolysis Gas Hydrogenation Unit	Spent hydrogenation catalysts	
9.	Coal based Energy generation	Coal Ash	15TPH (70:30 Import/Dom Mix)/40 TPH (Dom. Coal)

The municipal waste generated from office work, canteens are collected systematically and disposed accordingly. The waste from canteen is sent to piggeries. The incinerable hazardous waste is incinerated in the incinerator present at HPL facility as well as in the incinerator present in the facility of M/s West Bengal Waste Management Ltd. The non-incinerable hazardous waste and the incinerated ash are sent to M/s West Bengal Waste Management Ltd., the CHWTSDF Facility at Sutahata Haldia, for secured landfilling.

(xiv) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 25th May, 2017.

(xv) A site visit was earlier conducted by RO, Bhubaneshwar, MoEFCC on 14/04/2017. Based on the action plan submitted by HPL dated 31.07.2017, compliance status dated 04.12.2017 and another site visit by MoEFCC Official on 14.11.2017, a report on the adequacy of ATR has been received on 21.12.2017.

(xvi) The existing and proposed products are as under:-

S. No.	Product	Existing (KTA)	Proposed (KTA)	Total (KTA)	Item/ Category
1.	Ethylene	700	70	770	Item 5 (c)
2.	Propylene	350	35	385	
3.	Polypropylene	341	0	341	
4.	High Density Poly Ethylene (HDPE)	334	160	494	
5.	Linear Low Density Poly Ethylene (LLDPE)	386	0	386	
6.	Butadiene	101	10	111	
7.	Benzene	132	43	175	
8.	Butene-1	0	30.2	30.2	
9.	MTBE	0	98.6	98.6	
10.	Vinyl Acetate Ethylene (VAE)	0	60	60	
11.	Mixed Butane	113	13	126	Item 5 (e)
12.	Cyclo Pentane	5.2	3	8.2	
13.	Pyrolysis Gasoline	130.5	69.5	200	
14.	Motor Spirit (MS) Euro IV	250.6	49.4	300	
15.	Phenol	0	200	200	
16.	Acetone	0	123	123	
17.	Carbon Black Feedstock (CBFS)	89	11	100	
18.	Poly Butylene Terephthalate (PBT)	0	70	70	
19.	Tetrahydrofuran (THF)	0	16	16	
20.	C6 Raffinate	36.6	27.4	64	

To augment the existing and future power and steam requirement, HPL proposes to establish a coal based Captive Power Plant of 3X120TPH and 1x35 mw Condensing Steam Turbine Generator (CSTG). Further storage facilities and associated pipelines will be built for providing adequate support. The list of proposed additional storage facilities is provided below:

Proposed Hazardous Chemical Storage Details

Sl.No.	Chemical Name	Proposed Number	Working Volume (m ³)	Maximum Storage quantity (MT)
1.	Naphtha	1	42,735	28,632
2.	MS	1	4,000	3,080
3.	Hydrogenated Py-Gas	1	4,000	3,560
4.	MS Blending Tank	1	1,210	932
5.	Butadiene	1	2,050	1,271
6.	FGN	1	14,000	9,380
7.	LPG	1		10,000
8.	Methanol	2	4,500	3,564
9.	MTBE	2	5,000	3,700
10.	MTBE	1	2,800	2,072
11.	Phenol	3	5,000	16,050
12.	Acetone	2	5,000	3,955
13.	Butanediol	2	3,100	3,162
14.	THF	2	2,000	1,778
15.	VAM	2	5,500	5,137
16.	VAE	2	4,000	3,760
17.	NaOH 50% (Caustic Soda)	2	530	795
18.	H ₂ SO ₄ 98%	1	260	478

32.3.12.2 The proposal was earlier considered by the EAC (Industry-2) in its meeting held on 18-20 September, 2017. During that meeting, the Committee had asked for further clarifications/inputs in respect of the following:-

- The proposal and the project/activities requiring prior EC, need to be consistent with the items listed in the Schedule to the EIA Notification, 2006. The project title also requires corrections accordingly to avoid any confusion on admissibility of the proposal vis-à-vis the said Notification.
- Base line data for ambient air quality especially in respect of PM₁₀ at some of the monitoring locations are not meeting the prescribed standards. It was desired for more one month data collection to confirm the consistency of data.
- The action taken report on each of the observations made during the site visit needs to be confirmed and adequacy of the ATR is to be established by the RO at Bhubaneswar.

- Details of statutory clearances (EC/CRZ Clearance/Consent to Operate) for the infrastructure/facilities with the KOPT/Haldia Dock Complex, but to be utilized by the project proponent.

32.3.12.3 During deliberations, the EAC noted the following:-

The proposal is for environmental clearance to the project for expansion/addition of Naphtha cracking facility and other petrochemical products by M/s Haldia Petrochemicals Limited in a total area of 453 ha at Tehsil Sutahata-I, Haldia, District East Medinipur (West Bengal).

The project/activity is covered under category A of item 5(c) 'Petro-chemical complexes' and 5 (e) 'Petrochemical products and petrochemical based processing' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The ToR for the project was granted on 30th November, 2016, Public hearing was conducted by the SPCB on 25th May, 2017.

Present water requirement is 7.73 MGD, which will be increased to 10 MGD after the proposed expansion. The project proponent has agreed to reduce the consumption of proposed fresh water requirement of 10.30 MGD to 10 MGD, to be met from Geonkhali Water Supply System operated by Haldia Development Authority (HDA).

Total effluent after expansion will be 8625 cum/day, of which process effluent will be treated in Integrated Wastewater Treatment Plant. Treated effluent will be discharged into river/creek through green belt canal.

The additional details/documents submitted by the project proponent found to be satisfactory and adequately addressing concerns raised by the Committee.

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 in the public hearing were appropriately addressed by the project proponent in the EIA/EMP report.

Earlier, the Ministry had issued environmental clearance on 24th August, 2007 for the project 'Increase in Ethylene production from 520 to 700 KTA'. The monitoring report on compliance status of EC conditions, was forwarded by the Ministry's Regional Office at Bhubaneswar vide letter dated 7th July, 2017. Based on the action plan submitted by HPL dated 31st July, 2017, compliance status dated 4th December, 2017 and another site visit by the Regional Office of the Ministry on 14th November, 2017, report on the adequacy of ATR has been forwarded vide their letter dated 21st December, 2017. The same was deliberated by the EAC vis-à-vis its earlier observations, and found to be satisfactory.

Consent to Operate for the Haldia Dock Complex was obtained from the West Bengal Pollution Control Board vide letter dated 12th February, 2015, which is presently valid up to 31st December, 2018.

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

- Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- Necessary clearance under the CRZ Notification, 2011, as applicable, shall be obtained from the State Coastal Zone Management Authority, prior to commencement of works for the proposed expansion.
- The effluent of 8625 cum/day shall only be discharged into river/creek through green belt canal. The effluent discharge from the premises shall conform to the standards prescribed under the Environment (Protection) Rules, 1986. Prior permission in this regard shall be obtained from concerned regulatory authority/SPCB.
- 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.
- Environmental Standards for Petroleum Oil Refinery dated 18th March 2008 and Environmental Standards for Petrochemical (Basic and Intermediates) dated on 9th November, 2012, and its amendments from time to time shall be followed.
- To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. Multi-cyclone followed by bag filter shall be provided to the DCU coke based CFBC boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- The total fresh water requirement shall not exceed 10 MGD after expansion from Geonkhali Water Supply System operated by Haldia Development Authority (HDA). Necessary permission in this regard shall be obtained from the concerned regulatory authority.
- Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps.
- Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
- 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:-
 - Metering and control of quantities of active ingredients to minimize waste.
 - Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - Use of automated filling to minimize spillage.

- *Use of Close Feed system into batch reactors.*
- *Venting equipment through vapour recovery system.*
- *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 more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on public hearing issues. 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.*
- *Continuous online (24x7) monitoring system for stack emissions (for measurement of flue gas discharge and the pollutants concentration) and effluent discharge shall be installed, and the data to be transmitted to the CPCB and SPCB server.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*

Agenda No.33.3.13

Exploratory Drilling of Twenty Nine (29) Wells in additional Ten (10) ML Blocks of Western Onshore Basin by M/s ONGC Ltd in District Mehsana-Patan (Gujarat) - Reconsideration of Environmental Clearance

[IA/GJ/IND2/42396/2016, J-11011/45/2016-IA II (I)]

33.3.13.1 The project proponent and the accredited Consultant M/s Kadam Environmental Consultant, made a detailed presentation on the salient features of the project and informed that:

- (i) The proposal is for environmental clearance to the project 'Drilling of 29 exploratory wells in 10 ML Blocks by M/s Oil and Natural Gas Corporation Limited, Western Onshore Basin and located at Patan and Mehsana Districts of Gujarat.
- (ii) The project proposal was considered by the Expert Appraisal Committee (industry-2) in its 26th EAC meeting held during 25-26 February 2016 and recommended Terms of references (ToR) for the project. The ToR has been issued by ministry vide letter dated 26th April 2016.
- (iii) The project was considered for final EC presentation in the 28th meeting of Expert Appraisal Committee held on 18-20 September, 2017, and the PP was asked for further clarification on
 - a. HC, NMHC and VOC, as the values are not balanced in proportions
 - b. TDS and Electrical conductivity in ground water analysis is having drastic variations.
 - c. Values of dissolved oxygen are low, in surface water samples (pond)
 - d. Biodiversity of the pond has not been described
 - e. Surface water sampling of Khari not undertaken

f. Resampling of the above parameters was carried out during November 2017 and report submitted regarding the clarifications sought, to MoEF&CC.

(iv) All products are listed at S.N 1(b) of schedule of Environment Impact Assessment (EIA) Notification Under category 'A' and are appraised at central level by Expert Appraisal Committee.

(v) Land requirement will be ~ 110 m X 110 m for each exploratory well is required for proposed project. As drilling is temporary activity greenbelt is not be applicable. The estimated project cost is Rs 295 crores (Total for 29 wells). The one-time expenditure for environmental management and mitigation is estimated to be approx. Rs.1, 12, 39,000 per well. Additional Rs 15, 00,000 will be spent for site restoration in case of no hydrocarbon discovery

(vi) About 30-40 persons will be working in shifts at site. There is a possibility that local people will be hired on temporary basis, for miscellaneous work. It has been proposed to allocate Rs.6,00,00,000 @ 2.5% towards Corporate Social Responsibility. There are no national parks, wildlife sanctuaries, biosphere reserves, Tiger/Elephant reserves, wildlife's corridors etc. within 10 Km distance. River/water body Khari, Rupen and Pushpavati River is flowing within 10 km of proposed wells.

(vii) Ambient air quality monitoring was carried out at 10 location during (October to December, 2016) Post monsoon season and the baseline data indicates the ranges of concentration of PM₁₀: 70.0 µg/Nm³ to 80.0 µg/Nm³; PM_{2.5}: 30 µg/Nm³ to 34 µg/Nm³; SO₂: 12.1 µg/Nm³ to 15.9 µg/Nm³; NOx: 16.1 µg/Nm³ TO 24.1 µg/Nm³; HC: 1051 µg/Nm³ to 1150 µg/Nm³; NMHC: 11.0 µg/Nm³ to 21.5 µg/Nm³; VOC: < 1 ppm. AAQ modeling study for point source emission indicates that the maximum incremental GLCs after the proposed project would be 0.233 µg/m³, 5.13 µg/m³ and 0.233 µg/m³ for SO₂, NOx and particulate matter respectively. These GLC's are expected to occur at a distance of 100 m from the source towards the South West direction. The resultant Concentration are within NAAQS.

(viii) Total water requirement is 30 m³/day out of which fresh water requirement 25 m³/day which will be met from nearby ONGC source. It is expected that wastewater in the form of Drill cutting washing + Rig washing+ cooling etc shall be generated at an average rate of around 4 m³/day during the drilling operations from a single well. Waste water will be discharged in HDPE lined pit, available at site, and will be solar dried. Waste water generated will be non-hazardous as water based mud will be used.

(ix) The capacity of the DG set to be used for operating the rig and the circulation system is expected to be of 1240 HP (3 Nos, two running and one standby). Stack will be provided as per CPCB Norms to the proposed DG sets.

(x) Detail of solid waste/hazardous waste generation and its management: 150-200 MT / well of drill cuttings shall be generated at site per well (for well depth of 3000 m). This shall be stored in well-designed HDPE lined pit. As water based mud will be used drill cuttings along with waste water are nonhazardous and will be disposed off as per MoEF&CC notification G.S.R 395 (E.) dated 4th April, 2016. Used /waste Oil – During the drilling approx. 200 litre of spent oil shall be generated per well. This oil shall be sent to an authorized recycler.

(xi) Public hearings for the proposed project has been conducted by Gujarat Pollution Control Board for Patan district on 21/04/2017 at 11.30 hrs at Gram Panchayat Chock, Village Ganget, Taluka Chanasma, District Patan. An advertisement was issued in national daily "Indian Express" in English and vernacular daily "Gujarat Samachar" in Gujarati (local language) on 20/03/2017. Public hearing of Mehsana district was conducted on 06/05/2017 at 14.00 hrs. at Community hall, Sametra Gram Panchayat, Village: Sametra, Taluka: Mehsana, Dist.: Mehsana. An advertisement was issued in national daily "Indian Express" in English and vernacular daily "Gujarat Samachar" in Gujarati (local language) on 05/04/2017.

33.3.13.2 The proposal was earlier considered by the EAC (Industry-2) in its meeting held on 18-20 September, 2017. During the meeting, the Committee had asked for further clarifications/inputs in respect of the following:-

- HC, NMHC and VOC, as the values are not balanced in proportions (Page 53, Table 3-8).
- TDS and electrical conductivity in ground water analysis is having drastic variations (at Page 63, Table 3-15).
- Values of Dissolved Oxygen are low, in surface water samples (pond) at Page-67, 68, 70 table 3-17, 18,19.
- Bio-diversity of the pond has not been described (Page-88, Table 3-30)
- Surface water sampling of Khari not undertaken (Page-66, Table 3-16)

33.3.13.3 During deliberations, the EAC noted the following:-

The proposal is for environmental clearance to the project 'Oil & Gas Exploration in 10 ML Blocks' in a total area of 205.83 sq km of Western Onshore Basin in the Districts of Patan and Mehsana (Gujarat) promoted by M/s Oil and Natural Gas Corporation Ltd. For the present, 29 wells are proposed to be drilled covering an area of 110 m X110 m per location.

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

The ToR for the project was granted on 26th April, 2016. Public hearing was conducted by SPCB on 21st April & 6th May, 2017 in Patan and Mehsana Districts respectively. Major issues raised during public hearing include employment opportunity, land acquisition, land compensation and CSR issues such as drinking water facilities, school, road construction, fencing, hospital etc.

The fresh water requirement per well location is estimated to be 25 m³/day proposed to be met mostly through tankers and/or nearby existing source of water. Waste water generated would be 15 cum/day during drilling operations, out of which 10 cum/day is proposed to be recycled after treatment to the desired extent. Remaining of about 5 cum/day shall be discharged to HDPE lined evaporation pit, available at site and then solar dried.

The additional details/documents submitted by the project proponent found to be satisfactory and adequately addressing concerns raised by the Committee.

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 in the public hearing were appropriately addressed by the project proponent in the EIA/EMP report.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As 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. Domestic sewage shall be disposed off through septic tank/soak pit.*
- *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 PM₁₀, PM_{2.5}, SO₂, NO_x, CO, CH₄, HC, Non-methane HC etc.*
- *VOC shall be analysed before and after the drilling process.*
- *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 per well location, 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 H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S 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 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on Public Hearing issues 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.33.3.14

Expansion cum modernization of sugar from 4800 to 8000 TCD along with cogeneration from 22 MW to 45 MW and distillery from 30 KLPD to 95 KLPD by M/s Sar Senapati Santaji Ghorpade Sugar Factory Ltd (Maharashtra) - For Environmental Clearance

[IA/MH/IND2/69827/2017, IA-J-11011/45/2017-IA-II(I)]

33.3.14.1 The project proponent and the accredited consultant M/s SMS Envocare Limited made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for expansion cum modernization of sugar from 4800 to 8000 TCD along with cogeneration expansion from 22 MW to 45 MW and distillery from 30 KLPD to 95 KLPD and located at G. No. 284, 285, 287, 288, 281 (P), 280 (P), & 283 (P) of village Dhamane & 449, 454, 456, 457, 458, 460, 462, 464, 465 (P), 466, 467, 469, 470, 471 village Belewadi Kalamma, Taluka Kagal, District Kolhapur, Maharashtra.

(ii) All Molasses based distillery are listed at S.N.5 (g) (i) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iii) The project proposal was considered by the Expert Appraisal Committee (Industry- 2) in its 20th EAC meeting held during 27th February, 2017 and recommended Terms of Reference (ToR) for the Project. The ToR has been granted by Ministry vide letter dated 26th May, 2017.

(iv) Ministry had earlier issued EC earlier vide letter No. J-11011/268/2012- IA II (I) dated 24th December, 2014 for Distillery (30 KLPD), Cogeneration power plant (22MW) and Sugar 3500TCD unit to Sar Senapati Santaji Ghorpade Sugar Factory Ltd.

(v) Existing land area is 85 acres, 15 acres land will be used for proposed expansion. Industry has developed green belt in an area of 27 acres and additionally 1-2 acres will be developed out of 85 acres of area of the project. There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wild life Corridors etc. within 10 km from the project site. Chikotra river is flowing at 1.16 km in the West.

(vi) The estimated project cost is Rs.176.79 Cr. Total capital cost earmarked for pollution control measures is Rs.19.0 cr. and the recurring cost (operation and maintenance) will be about Rs.36.8 lakh per annum. Total Employment will be for 80-100 persons as direct & 80-100 persons indirect after expansion. It has been proposed to allocate Rs.3.0 Cr. @ 2.5 % towards Corporate Social Responsibility.

(vii) Ambient air quality monitoring was carried out at ten locations during March 2017 to May 2017 and the baseline data indicates the ranges of concentrations as: PM₁₀ (40.3 to 71.7 µg/m³), PM_{2.5} (17.2 to 49.2 µg/m³), SO₂(4.8 to 19.2 µg/m³) and NO₂(13.9 to 29.2µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.05 µg/m³, 5.33 µg/m³ and 2.28 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(viii) Total water requirement is 1918 CMD, of water which fresh water requirement of 288 cum/day for season and 714 cum/day for off season will be met from Chikotra project water supply. Effluent of process condensate will be treated through Condensate Polishing Unit and thus achieving Zero Liquid Discharge.

(ix) Power requirement after expansion will be 2595 kWh including existing 2500 kWh and will be met from in-house 20 TPH Boiler.

(x) Existing unit has 120 TPH Bagasse, 10 TPH Coal and spent wash fired boiler and proposed 120 TPH Bagasse, 20 TPH Coal and spent wash fired boiler will be installed. ESP with a stack of height of 85 m will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm³)

(xi) The process emissions likely to be generated for manufacturing of ENA/ TA will be from various process like CO₂, VOC, and alcohol vapor VOC, alcohol Vapor and Odor. Spent wash from evaporation would be in a closed tank and directly send to the incineration in boiler. No bio-methanization will be adopted. Fermentation unit will be provided with proper cover to avoid the spread of odor and regular steaming of all fermentation equipment's; temperature will be kept under control during fermentation to avoid inactivation/killing of yeast; staling of fermented wash would also be avoided.

(xii) Details of Solid waste/ Hazardous waste generation and its management are as under:

S. No.	Type of waste	Quantity		Disposal
		Existing	Proposed	
1.	Press mud	192 TPD	320 TPD	Press mud will be sold to the farmer as manure.
2.	Yeast sludge	3 TPD	6.5 TPD	Sludge (Yeast and ETP) will be dried and used as fertilizer or it will be incinerated along with spent wash in the boiler.
3.	ETP sludge	0.025 TPD	0.04 TPD	
4.	Ash	From Spent wash: 9-10 From Coal: 7.5 TPD Bagasse ash: 20-22 TPD	From Spent wash: 20 TPD From Coal: 16.5 TPD Bagasse ash: 20-22 TPD	Coal ash and bagasse ash (partly) will be send to brick manufacturer, bagasse ash will be sold to farmer as manure.
5.	Domestic	Negligible	Negligible	Local waste collection system
6.	Spent oil	Negligible	Negligible	Authorized recycler

(xiii) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 23th August, 2017.

(xiv) Certified compliance report from Regional Office Nagpur issued vide letter dated 20th November, 2017 is submitted.

(xv) The existing and proposed products are as under:

Product	Existing	Total Proposed
Cane crushing	4800 TCD	8000 TCD
Sugar	600 TPD (12.05 % cane)	1000

Bagasse	1368 TPD	2280 TPD
Molasses(4.0% on cane)	192	320 TPD
Press mud(4 % on cane)	192 TPD	320 TPD
Power generation	22 MW	45 MW
Pure Rectified Spirit/ Impure Spirit/ENA (One at a time)	30.0 KLPD	95 KLPD

33.3.14.2 The proposal was earlier considered by the EAC in its meeting held on 20-22 December, 2017. During the meeting, the Committee desired for revised details in respect of water requirement, waste water generation and disposal, to examine the proposal in complete perspective. The Committee also asked for the public hearing details to be tabulated along with their response on each of the issued raised during public hearing.

33.3.14.3 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion and modernization of Sugar Unit from 4800 to 8000 TCD, Cogeneration power plant from 22 MW to 45 MW and Molasses based Distillery unit from 30 KLPD to 95 KLPD by M/s Sar Senapati Santaji Ghorpade Sugar Factory Ltd in the existing total land area of 85 acres at G. No. 284, 285, 287, 288, 281 (P), 280 (P), & 283 (P) of Village Dhamane & 449, 454, 456, 457, 458, 460, 462, 464, 465 (P), 466, 467, 469, 470, 471 of Village Belewadi Kamma, Taluka Kagal, District Kolhapur (Maharashtra).

The project/activity is covered under category A of item 5(g) 'Distillery', category B of item 5 (j) 'Sugar Industry' & 1(d) 'Thermal Power Plants' of the Schedule to 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 26th May, 2017, and the public hearing was conducted by the SPCB on 23th August, 2017.

Total water requirement for the sugar and co-generation is 589 m³/day, out of which 301 m³/day is from the reuse of condensate water during crushing season and thus limiting the fresh water demand to 288 m³/day during season. Maximum fresh water requirement would be 144 m³/day during off-season.

For distillery, water requirement is 570 m³/day proposed to be met from utilisation of treated condensate water during season. During off season, fresh water requirement of 570 m³/day shall be met from Chikotra project water supply. The Irrigation Department of the State Government vide letter dated 30th January, 2015 has given permission to draw 1518 cum/day from the Chikotra project water supply. That would adequately cater to proposed expansion of the sugar plant, co-generation plant and the distillery.

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

Earlier, the Ministry had issued environmental clearance on 24th December, 2014 for setting up Distillery (30 KLPD), Cogeneration power plant (22 MW) and Sugar (3500 TCD) manufacturing unit. The monitoring report on compliance status of EC conditions (site visit carried on 3rd November, 2017) forwarded by the Ministry's Regional Office at Nagpur, vide letter dated 20th November, 2017 was found to be satisfactory.

Consent to operate for the existing sugar unit (4800 TCD) & CPP of 22 MW and for distillery of 30 KLPD has been obtained from the State Pollution Control Board vide letters dated 28th November, 2017, with their validity up to 31st July, 2018 & 31st August, 2018.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Total fresh water requirement shall not exceed 288 cum/day (during season) and 714 cum/day during off-season proposed to be met from Chikotra project water supply. Prior permission shall be obtained from the concerned regulatory authority in this regard.*
- *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 the ETP and then through RO system.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.*
- *Sulphur content in the coal (if used as fuel) shall not exceed 0.5 %.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The company shall undertake waste minimization measures as below:-*
 - (a) *Metering and control of quantities of active ingredients to minimize waste.*
 - (b) *Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
 - (c) *Use of automated filling to minimize spillage.*
 - (d) *Use of Close Feed system into batch reactors.*

- (e) Venting equipment through vapour recovery system.
- (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on public hearing issues 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.
- There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.
- Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- The energy sources for lighting purposes shall preferably be LED based. A minimum of 10-20% of the total power requirement for the industrial operations shall be met from non-conventional energy resources/solar supply

Agenda No.33.3.15

Expansion of Pesticide (Technical) project from 2940 MT/Annum to 7200 MT/Annum by M/s Bharat Rasayan Ltd located at 2 KM Stone, Madina-Mokhra Road, Village Mokhra, Tehsil Meham, District Rohtak (Haryana) - For Environmental Clearance

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

33.3.15.1 The project proponent and the accredited Consultant M/s EQMS India Pvt Ltd, made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for Expansion of Existing Pesticide technical (2940 to 4260 TPA) Project at 2 Km Stone, Madina Mokhra Road, Village Mokhra, Tehsil Meham, District Rohtak, Haryana by M/s Bharat Rasayan Ltd

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 29th EAC meeting held during 12-13 October 2017 and recommended ADS for Zero Liquid Discharge. The ToR has been issued by Ministry vide letter dated 2nd August 2016.

(iii) The project/activity is covered under category A of item 5(b) 'Pesticides industry and pesticides specific intermediates' of the Schedule to EIA Notification, 2006, and requires appraisal at central level i.e. EAC, MoEF&CC.

(iv) Ministry has not issued EC earlier the plant is running since 1991 on the basis of valid consent. Existing land area is 44517sq.m and no additional land will be required for proposed expansion. Industry is already/ will be developed Greenbelt in an area of 33 % i.e. 16068.65 m² out of 44517.0 m² of area of the project.

(v) The estimated project cost is Rs 150 Lakhs while existing investment of Rs 2900 Lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs 200 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 234 Lakhs per annum. Total Employment will be 230 persons as direct & 275 person indirect after expansion. Industry proposes to allocate Rs 19.65 @ of 5/2.5 % towards Corporate Social Responsibility. There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km. Mokra Minor is flowing at a 1.80 km in NW.

(vi) Ambient air quality monitoring was carried out at 8 locations during 1st Dec 2015 to 29th Feb 2016. The baseline data indicates the ranges of concentrations as: PM₁₀ (61-78 µg/m³), PM_{2.5} (26-35 µg/m³), SO₂ (5.4 -6.6 µg/m³) and NO₂ (11.1 -13.1 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 6.7 µg/m³, 3.6 µg/m³ and 3.6 µg/m³ with respect to PM₁₀, SO_x and HCl. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(vii) Total water requirement is 234.719 m³/day and will be met from Borewell. Effluent of 49.61 KLD from process and 35 KLD from domestic will be treated through MEE/ETP/STP. The plant will be based on Zero Liquid discharge system.

(viii) Power requirement after expansion will be 1720KVA including existing 1450 KVA and will be met From State Electricity Board (UHBVNL). Existing unit has 2 DG sets of 1250 KVA & 275 KVA capacity, additionally 275 KVA DG sets are used as standby during power failure.

(ix) Stack (height 10 m) will be provided as per CPCB norms to the proposed 2DG sets of 1250KVA & 275KVA in addition to the existing DG sets of NIL which will be used as standby during power failure.

(x) Existing unit has 6 TPH coal fired, 3TPH and 2 TPH LDO fired boiler with 2 numbers Thermic fluid heater of 2.0 Lac KCal, LDO fired. Additionally 2TPH coal fired boiler or replacement of existing 6 TPH boiler by 8 TPH boiler and thermic fluid heater 6.0 Lac Kcal 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 115 mg/Nm³ for the proposed boilers.

(xi) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 15th June 2017.

(xii) The existing and proposed products:

S.No	Particulars	Existing (TPA)	Proposed (TPA)
INSECTICIDE			
1	Alphacypermethrin Technical	0	100
2	Bifenthrin Technical	0	120
3	Cypermethrin Technical	600	350
4	Fenvalerate Tech.	900	300
5	Fipronil Tech.	0	100
6	Lambda Cyhalothrin Tech.	0	300
7	Permethrin Tech.	0	100
8	Thiamethoxam Tech.	0	300
9	Diafenthiroun Tech.	0	150
HERBICIDE			
1	Clodinafop Tech.	0	100
2	Propanil Tech.	0	50
3	Pyrazosulfuron Tech.	0	20
4	Imiazethapyre Tech.	0	25
5	Safener	0	30
FUNGICIDES			
1	Tebuconazole Tech.	0	50
2	Diafenconazole Tech.	0	50
3	Myclobutanil	0	15
INTERMEDIATE			
1	Methaphenoxybenzaldehyde	960	1800
2	Parachlorophenyl Isopropyl Acetic Acid	0	200
3	Parachlorobenzylcyanide	480	100
TOTAL CAPACITY		2940	4260

33.3.15.2 The proposal was earlier considered by the EAC in its meeting held on 12-13 October, 2017. The EAC in the first instance and in view of the submissions by the project proponent regarding zero liquid discharge stipulations, preferred for a certification in this regard by the CPCB and/or the SPCB to ensure compliance of the directions by CPCB. The EAC further desired that to expedite the process, if so required, site visit may also be undertaken by the Committee members.

33.3.15.3 During deliberations, the EAC noted the following:-

The proposal is for environmental clearance to the project for expansion of pesticides industry from 2940 TPA to 7200TPA by M/s Bharat Rasayan Ltd in a total area of 44517 sqm located at 2 km Stone, Madina-Mokhra Road, Village Mokhra, Tehsil Meham, District Rohtak (Haryana).

The project/activity is covered under category A of item 5(b) 'Pesticides industry and pesticide specific intermediates' of the Schedule to Environmental Impact Assessment Notification, 2006,

and requires appraisal at the Central Level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The ToR for the project was granted on 2nd August, 2017 and the public hearing was conducted by the SPCB on 15th June, 2017.

Fresh/total water requirement of 234.719 cum/day shall be met from ground water. The required permission in this regard has been obtained from the concerned authority/CGWA.

In response to the observations of the EAC in its meeting held on 13th October, 2017, the project proponent has submitted a certificate from Haryana PCB regarding ZLD vide their letter dated 24th October, 2017. The SPCB has informed that the unit is recycling/reusing treated trade effluent in their process i.e. cooling towers, scrubber etc. and the treated domestic effluent for horticulture purpose. The unit was not found discharging any effluent outside the premises during the inspections done by the Board.

Consent to Operate for the present capacity of 2940 TPA has been obtained from the State Pollution Control Board, which is presently valid up to 30th September, 2021.

33.3.15.4 *The EAC, after deliberations, and in view of its earlier observations, preferred for a site visit by a sub-committee of 2-3 of its members to be decided by the Ministry in consultation with EAC Chairman. The proposal was, therefore, deferred for the present.*

Agenda No.33.3.16

Development of 30 wells, Group Collection System and laying of pipeline from Bharatoli to Palatana by M/s ONGC Ltd (Tripura) - Reconsideration of Environmental Clearance

[IA/TR/IND2/29940/2012; F.No. 11011/234/2012-IA-II(I)]

33.3.16.1 The project proponent and their consultant M/s Senes Consultants India Pvt made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environment clearance to the project 'Development Wells (9), Group Collection Station and pipeline laying' from Bhuratoli to Palatana in Tripura by M/s Oil and Natural Gas Corporation Ltd.

(ii) The initial Project Proposal was on 30 Development Wells, Group Collection Station and pipeline laying from Bhuratoli to Palatana in Tripura by M/s Oil and Natural Gas Corporation Ltd. It was proposed to develop 30 wells across six gas fields—Boramura, Konaban, Agartala Extension Dome II, Manikynagar, Sundalbari and Gojalia in Tripura. A GCS and a pipeline (54.15 Km) connecting the GCS to ONGC Tripura Power Company, Palatana is to be constructed. The cost of the drilling project is Rs. 639 Crore. The cost of the GCS and pipeline laying is Rs. 119 crore. The proposed project is located in five districts of Tripura (West Tripura, Sepahijala, Khowai, South Tripura and Gomati). The depth of wells vary from 2500 – 3000 m. The following wells are proposed to be drilled:

(iii) All the projects related to Offshore and Onshore Oil and Gas exploration, Development and Production are listed in S.No. 1(b) of Schedule of Environmental Impact Assessment (EIA) Notification, 2006 under Category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Draft Terms of References was awarded during the 3rd meeting of the EAC held during 3rd-5th December, 2012 for preparation of EIA-EMP report. The TOR was issued by Ministry vide letter dated 22nd February, 2013.

(v) A GCS facility will be located in Bhuratoli village in Gojalia Block. A total of 44.96 acres of land has been acquired of which 24.74 acres is a government Khas land and 20.22 acres is private agricultural land. The wells ADDL, ADDN, ADDP, ADDQ, TRAD-11, 12, 13 and 14 wells in the Agartala Dome Ext II are located within the 10 km radius of Sepahijala Wildlife Sanctuary. The proposed wells TRGO-1 and SDDA in Gojalia and Sundalbari gas field and a stretch of pipeline in Gojalia is located within 10 km radius of Trishna Wildlife Sanctuary and another stretch of the pipeline traverses through the Sanctuary. The PP has informed that the ONGC will take necessary wildlife clearance from National Board of Wildlife (NBWL) and forest.

(vi) A stretch of 3.9 km of pipeline passes through the forest areas. It is reported that PCCF, Tripura Forest Dept. has issued clearance letter along with the map wherein proposed ONGC's location are far away from the Eco-Sensitive Zone (ESZ). The ESZ has not yet been notified. 9 wells and 50.1 km pipeline are not falling under forest land as well as ESZ area. 10 wells are falling in the ESZ of WLS. One well is falling under the reserve forest area. 10 wells are falling under the reserve forest and unclassified Govt. forest land. 3.5 km pipeline passes through reserve forest. New development wells in Agartala Dome, Konaban, Baramura will be connected to the existing GCS. 4 new wells at Gojalia will be connected to the proposed GCS at Gojalia. This GCS will be equipped with two ETPs having capacity of 50 m³/day.

(vii) Adequate stack height with acoustic enclosure will be provided to DG set. Total fresh water requirement for drilling activity will be 20 m³/day. Water based mud (fluid) will be used for drilling operation. Main constituents of the fluid are Bentonite and barites, both of which are natural minerals. Wastewater generation will be 7 m³/day. Drill cutting (DC) will be separated from water based mud (WBM) and washed properly and unusable drilling fluids (DF) will be disposed off in well designed lined pit with impervious liner for solar drying. Disposal of drill cuttings and drill mud will be carried out in accordance with the GSR 546 (E) dated 30th August, 2005. Used oil will be sent to the authorized recyclers.

(viii) The EAC, in its 3rd meeting held during 18th -19th January, 2016, has found that the final EIA/EMP report is adequate. The EAC after detailed deliberations, has recommended the project for environmental clearance subject forest clearance and other conditions.

(ix) The PP, in the 17th meeting of the EAC held during 26th – 29th December, 2016 has requested the EAC to consider the proposal for grant of environmental clearance for the following 9 wells (located in the non-forest area) and GCS along with the pipeline out of the 30 development wells.

S.	Locations	Well	Latitude	Longitude
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No.				
1	Konaban	ROD I	23°42'0.62"	91°10'08.71"
2		RODM	23°42'39.29"	91°10' 45.05"
3		TRKN-16	23°41'42.00"	91°10'15.00"
4		TRKN-17	23°41'41.00"	91°10'49.60"
5		TRKN-18	23°42'12.00"	91°10'30.00"
6		TRKN-20	23°41'41.00"	91°10' 49.60"
7		TRKN-21	23°44'25.43"	91°10'17.75"
8	Manikyanagar	RODK	23°39'07.92"	91°11'36.69"
9	Sonamura	TRSN-1	23°31'05.44"	91°16'23.09"

(x) The EAC in its 17th meeting held during 26-29 December, 2016 has considered the request of the PP and recommended that in view of the importance of the proposal from country's oil production point of view, the Ministry may consider the proposal for grant of environmental clearance for 9 wells (in the non-forest area) and GCS along with the pipeline.

33.3.16.2 The proposal was earlier considered by the Expert Appraisal Committee (Industry -2) in its meeting held during 18-19 January, 2016 and 17th meeting held during 26-29 December, 2016. The earlier proposal for development of 30 wells covering an area of 437.81 sq km in five districts namely West Tripura, Sepahijala, Khowai, South Tripura and Gomati, was recommended by the EAC in its meeting held on 18-19 January, 2016 subject to Stage-1 Clearance for the forest area (251.11 sq km) involved under the project.

The proposal was subsequently revised to development of 9 wells (including Gas Collection Station and pipeline from Bhuratoli to Palatana) only covering an area of 186.7 sq km (no forest land involved) in three districts of South Tripura, Gomati and Sepahijala. The same was considered by the EAC in its meeting held on 26-29 December, 2016 and recommended for grant of environmental clearance. However, while processing the case, it was observed that the public hearing conducted in West Tripura and Sepahijala Districts was presided by the officers not in the rank of Additional District Magistrate or District Magistrate, as prescribed under EIA Notification, 2006. The project proponent vide this Ministry's letter dated 13th April, 2017 was asked to conduct the public hearing again as provided under the Notification.

33.3.16.3 During deliberations, the EAC noted the following:-

The proposal is for environmental clearance to the project for Onshore Oil & Gas Development and Production from 9 wells (including Gas Collection Station and pipeline from Bhuratoli to Palatana) in a total area of 186.7 sq km of Tripura Asset in the Districts of South Tripura, Gomati and Sepahijala (Tripura) promoted by M/s Oil and Natural Gas Corporation Ltd.

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

The ToR for the project was granted on 22nd February, 2013 and public hearing was conducted by SPCB on 18th February, 2015 in Gomati, 26th July, 2017 in South Tripura and 29th July, 2017 in

Sepahijala. Major issues raised during public hearing included employment opportunity, land acquisition, land compensation and CSR issues like drinking water facilities, school, road construction, fencing, hospital etc.

The water requirement per well location is estimated to be 25 m³/day proposed to be met mostly through tankers and/or nearby existing source of water. Waste water generated would be 15 cum/day during drilling operations, out of which 10 cum/day is proposed to be recycled after treatment to the desired extent. Remaining of about 5 cum/day shall be discharged to HDPE lined evaporation pit, available at site and then solar dried.

The additional details/documents submitted by the project proponent found to be satisfactory and adequately addressing concerns raised by the Committee.

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 in the public hearing were appropriately addressed by the project proponent in the EIA/EMP report.

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

- *The environmental clearance is subject to obtaining prior clearance from the wildlife angle, including clearance from the Standing Committee of the National Board for Wildlife, as applicable. Grant of environmental clearance does not necessarily implies that Wildlife Clearance shall be granted to the project and that their proposals for Wildlife Clearance will be considered by the respective authorities on their merits and decision taken.*
- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As 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. Domestic sewage shall be disposed off through septic tank/soak pit.*
- *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 PM₁₀, PM_{2.5}, SO₂, NO_x, CO, CH₄, HC, Non-methane HC etc.*
- *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 15 cum/day per well location, 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 H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S 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 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on Public Hearing issues 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.*

33.4 Terms of Reference

Agenda No.33.4.1

Proposed Development Drilling wells and Testing of Hydrocarbons by M/s Oilmax Energy Private Limited in Duarmara Block in Margherita, District Tinsukia (Assam) - For ToR

[IA/AS/IND2/71746/2017, IA-J-11011/575/2017-IA-II(I)]

33.4.1.1 The project proponent made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for Terms of Reference to the project for "Development Drilling wells and Testing of Hydrocarbons in Duarmara Block in Margherita, District - Tinsukia, Assam by M/s Oilmax Energy Private Limited"

(ii) All offshore and onshore oil and gas exploration, development and production is listed at S. No. 1(b) of Schedule to the Environment Impact Assessment (EIA) Notification, 2006 under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iii) Land required for the each well under this project is about 2.25 ha. The estimated project cost is Rs. 30.00 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 50.0 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 5.0 Lakhs per annum. Total Employment will be 100 persons as direct & about 250 persons indirect. Industry proposes to allocate Rs. 75 Lakhs @ 2.5 % towards Corporate Social Responsibility.

(iv) There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger / Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River Deihing is flowing at a distance of 10 km in South direction.

(v) Total water requirement is 20 m³/day and will be met from Tanker supply. Effluent of 5.0 KLD will be treated through mobile Effluent Treatment Plant and treated effluent will be used for green belt development after confirm the standards prescribed by CPCB / ASPCB.

(vi) Power requirement per well will be 2250 KVA and will be met from DG sets of adequate capacity (Approx. 2000 KVA for rig operation & 250 KVA for Camp). Stack (height of 18m & 10 m) will be provided as per CPCB norms to the proposed DG sets of 2000 KVA and 250 KVA).

(vii) There is no generation of process emissions as there is processing in the well locations.

(viii) Oil soaked cotton waste shall be stored at designated place and disposed of through TSDF, in accordance to the conditions prescribed by ASPCB. Spent oil, containers of POL/chemicals shall be stored at designated place and disposed of through recyclers. Oily sludge generated from bottom of storage tanks will be transported to authorized TSDF site. Waste oil will be transported to authorized waste oil recyclers approved by ASPCB.

33.4.1.2 During deliberations, the EAC noted that the project involves onshore oil & gas development and production in Duarmara Block covering an area of 9 sq km at Margherita, District Tinsukia (Assam) promoted by M/s Oilmax Energy Private Limited. For the present, 9 wells are proposed to be drilled covering an area of 110 m X110 m per well location.

The said project/activity is covered under category A of item 1(b) of the schedule to the EIA Notification, 2006, and thus requires appraisal at central level by the sectoral EAC in the Ministry.

33.4.1.3 *The EAC, after deliberations, recommended the project 'Onshore oil and gas development & production in Duarmara Block' for grant of ToR for preparation of EIA/EMP reports, to enable consideration of the proposal for environmental clearance. The ToR shall include the standard ToR as specified/notified for such projects/activities, and the additional terms and conditions as under:-*

- *Public hearing/consultation to be conducted by the State Pollution Control Board as per the provisions of the EIA Notification, 2006.*

Agenda No.33.4.2

Development of B-9 Cluster Offshore fields in the Discovered Small Field (DSF) by M/s Adani Welspun Exploration Limited in Mumbai Offshore Basin - ToR

[IA/MH/IND2/71534/2017, IA-J-11011/565/2017-IA-II(I)]

33.4.2.1 The project proponent made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for terms of reference to the project 'Development of B-9 Cluster Offshore fields in the Discovered Small Field (DSF)' at Mumbai Offshore Basin by M/s Adani Welspun Exploration Limited

(ii) All Project /activities are listed at S.N. 1(b) Offshore and onshore oil and gas exploration, development & production of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

- (iii) The estimated project cost is approximately Rs.1600 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 50 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 10 Lakhs per annum.
- (iv) Total employment will be 120 persons during drilling and installation of surface facilities & 20-25 persons after commencement of production. Funds and area for Corporate Social Responsibility will be decided during the EIA process.
- (v) There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance.
- (vi) Total water requirement is 45-55 m³/day of which fresh water requirement of 10 m³/day. Water requirement will be met from sea water and fresh water from port.
- (vii) Project area is located in offshore area beyond 12 nautical miles. 8-12 KL per day of High Speed Diesel (HSD) for running captive Gensets of Drilling rigs, DLB, Offshore Vessels during drilling and construction phase. Power generation through solar or other sources will be used at unmanned wellhead platforms.
- (viii) The sources of emissions anticipated are test flaring of gas, Diesel Generator (DG) sets on the offshore drilling units, DLB, and exhausts from supply vessels. Test flaring of gas per well is expected to be of about 4 days per well. Approx 8-12 KLD fuel will be used for DG sets. Considering the drilling location is entirely offshore, there will be good dispersion and no perceptible impact on the air quality. Also, efficient measures like use of high efficient DG sets, low sulphur HSD as fuel, regular maintenance etc will be undertaken.
- (ix) Drilled cuttings generated will be about 300 - 500 M3 during drilling over a period of 45-60 days. Water Based Mud (WBM) is planned to be used. In case synthetic oil based mud (SOBM) is used, unused SOBM will be brought back to land for treatment & disposal as per MoEF notification G.S.R. 546 (E). Oil filters, Burnt/Spent oil & used batteries/lead acid cells will be brought back further disposal through authorized recycling vendor. Food, sanitary and other municipal wastes generated from the accommodation facility on the offshore drilling unit, DLB & Offshore Vessels will be segregated at source (organic and inorganic) and disposed as per guidelines. Sewage treatment plants (STPs) are available on board rig & DLB as per MARPOL & marine practices and discharged into the sea after treatment during the drilling and construction phase. Formation/Produced water, if any, separated during gas processing will be treated and disposed as per CPCB/MoEF standards.
- (x) Public Hearing may not be applicable as the project area is located in offshore area. Nearest habitation is located about 72 km.
- (xi) The proposed products/utilities are:

S. No.	Products	Quantity
1.	Gas (from B-9 Field):	32 mmscfd (peak production rate for a plateau period of 4 years followed by declining profiles)
2.	Gas (from B-7 Field):	21 mmscfd (peak production rate for a plateau period of 4 years followed by declining profiles)
3.	Oil (from BRC Field):	800 bopd & 0.4 mmscfd (peak production rate for a plateau period of 2 years followed by declining profiles)

Mmscfd: Million standard cubic feet per day

BOPD: Barrels of oil per day

The field is proposed to be operated unmanned with periodical visits through helicopter/boat-landing to conduct routine maintenance, well interventions and any repair work etc. Processing of the oil and gas is envisaged to be done at existing third party facilities, gas will be further routed to an existing on-shore gas processing complex from where the gas buyers' off take point will be identified later. The BRC Oil production is envisaged to be stabilized in the BRC platform and exported at offshore, the details will be finalized later.

33.4.2.2 During deliberations, the EAC noted that the proposal is for terms of reference to the project 'Offshore oil & gas development and production from Discovered Small Field in B-9 Cluster Fields by M/s Adani Welspun Exploration Limited, covering a total area of 183.23 sq km at Mumbai Offshore Basin.

The said project/activity is covered under category A of item 1(b) of the schedule to the EIA Notification, 2006, and thus requires appraisal at central level by the sectoral EAC in the Ministry.

33.4.2.3 *The EAC, after deliberations, recommended the project 'Offshore oil & gas development and production' from Discovered Small Field of B-9 Cluster fields at Mumbai Offshore Basin, for grant of terms of reference for preparation of EIA/EMP reports to enable consideration of the proposal for environmental clearance. The scope of the work/study shall include the standard ToR specified/notified for such project/activity with the exemption from public consultation due to the proposed activities would be taken up offshore.*

The project proponent shall, however, ensure that the project is not covered under the ambit of the CRZ Notification, 2011. Certification in this regard from the State Coastal Zone Management Authority shall be submitted along with the proposal for environmental clearance.

Agenda No.33.4.3

Expansion in Soda Ash, Caustic Soda and Captive Power Plant by M/s Nirma Ltd at Kalatalav, Near Bhavnagar (Gujarat) - For ToR

[IA/GJ/IND2/71426/2017, IA J-11011/560/2017-IA-II(I)]

33.4.3.1 The project proponent made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for terms of reference to the project 'Expansion in Soda Ash (2,800 TPD to 4,300 TPD), Caustic Soda (750 TPD to 1,000 TPD) and Captive Power Plant (197.18 MW to 350 MW)' at Kalatalav, Near Bhavnagar, Gujarat by M/s Nirma Ltd.

(ii) All Products are listed at S.N. 4 (e), 4(d) & 1(d) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iii) Ministry has issued EC earlier vide letter no. J-11011/369/2014-IA-II (I); dated 10th March, 2017 for Expansion of Synthetic Organic Unit, Soda Ash Plant, Caustic Soda Plant and CPP to M/s Nirma Ltd.

(iv) Existing land area is 555 acres and no additional land will be required for the proposed expansion. Industry has already developed greenbelt in 20% of the project area, and more shall be developed to cover of 33% of the total project area i.e. 7,42,321 m². The estimated project cost is Rs 1320 crores and existing investment is Rs. 3110 crores till date. Total capital cost earmarked towards environmental pollution control measures is Rs. 41.65 crores (existing) and Rs. 22 crores (proposed) and the Recurring cost (operation and maintenance) will be about Rs. 20.96 crores (existing) and Rs. 18 crores (proposed) per annum.

(v) Total employment will be 1730 Persons as direct & more than 7000 persons indirect after expansion. Industry proposes to allocate @ Rs 30 Crores of 5/2.5 % towards Corporate Social Responsibility. The existing employees are 1635 persons.

(vi) There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance. Water bodies namely Gundala Creek, Malcolm Channel, Bhavnagar Creek (Gulf of Khambhat) are flowing at a distance of 6.5 km, 6.0 km, & 3.0 km in North, East & South direction respectively.

(vii) Total water requirement will be 17.67 x 10⁵ m³/day of which proposed water requirement of 3.6 x 10⁵ m³/day and is/will be met from Seawater i.e. from Sonarai Creek.

(viii) Power requirement after expansion will be 350 MW including existing 66 KVA and will be met from Gujarat State power distribution corporation limited (GSPDCL). Existing unit has 5 DG sets of 1000 KVA- 3 Nos., 1500 KVA-2 Nos. capacity, additionally 2 DG sets are used as standby during power failure. Stack (height 30 meter) will be provided as per CPCB norms to the proposed DG sets of 2000 KVA & 1850 KVA in addition to the existing DG sets of 1000 KVA- 3 Nos., 1500 KVA-2 Nos. which will be used as standby during power failure.

(ix) Existing unit has Boiler (100 TPH-4 Nos., 200 TPH – 1 No., 410 TPH-1 No.), Thermic Fluid Heater (10,00,000 Kcal/hr -3/1 Nos.) coal/petcoke/lignite fired boiler. Additionally 410 TPH 1 No., 130 TPH-1 No. coal/petcoke/lignite fired boiler will be installed. ESP with a stack of height of 121 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers.

(x) Details of Process emissions generation and Stack gas emissions and its management as per below table:-

Process gas emissions

S. No.	Vent Attached to	Stack Height (m)	Stack Dia. (m)	Air Pollution Control System	Pollutant
1	Soda Ash Plant – Existing & Proposed				
	Lime Kilns (A to H) – 8 nos.	68 (Common Stack)	0.8	4 scrubbers and 3 ESP in Series	PM, SO ₂ , NO _x
	Ammonia Recovery System (A to E) 5 No.	56 (Common)	0.75	Brine Scrubbers (5 nos.)	Ammonia

		Stack)			
	Lime Grinding System A to E (5 nos.)	60 (each)	0.65	Bag Filter	PM
	Calcinations Vessel (A to D 4 nos)	29 (each)	0.7	Water Scrubber	PM
	Densification 1	40	1.37	Water Scrubber	PM
	Densification 2	51	1.37	Water Scrubber	PM
	Densification 3	51	1.37	Water Scrubber	PM
	Lime Kilns (I to L) – 4 nos. (Proposed)	68 (Common Stack)	0.8	Two scrubbers and two ESP in Series	PM, SO ₂ , NO _x
	Ammonia Recovery System (F & G) 2 nos. (Proposed)	56 (Common Stack)	0.75	Brine Scrubbers (2 nos.)	Ammonia
	Lime Grinding System (F 1 nos.) (Proposed)	60	0.65	Bag Filter	PM
	Calcinations Vessel (E & F 2 nos) (Proposed)	29 (Common vent)	0.7	Water Scrubber	PM
	Densification (Proposed)	4 51	1.37	Water Scrubber	PM
2	Caustic Soda and CPP - Existing & Proposed				
	HCl Synthesis Unit – 1	30	0.1	Water Scrubbers	HCl & Cl ₂
	HCl Synthesis Unit - 2	30	0.1	Water Scrubbers	HCl & Cl ₂
	HCl Synthesis Unit – 3	30	0.1	Water Scrubbers	HCl & Cl ₂
	HCl Synthesis Unit - 4	30	0.1	Water Scrubbers	HCl & Cl ₂
	HCl Synthesis Unit – 5 (Proposed)	30	0.1	Water Scrubbers	HCl & Cl ₂
	Waste Gas Dechlorination System – 1	30	0.3	18% NaOH Scrubber	Cl ₂
	Waste Gas Dechlorination System – 2	30	0.3	18% NaOH Scrubber	Cl ₂
	Waste Gas Dechlorination System – 3	30	0.3	18% NaOH Scrubber	Cl ₂
	Hydrogen unit with Flame arrestor and steam snuffing – 1	30	--	--	--
	Hydrogen unit with Flame arrestor and steam snuffing – 2	30	--	--	--
	Hydrogen unit with Flame arrestor and steam snuffing – 3	30	--	--	--

3.	Bromine Plant				
	De-bromination System	30	0.3	Alkali Scrubber	Bromine
4.	Chlorine & Hydrogen Derivatives				
	Solvent Recovery	30	0.3	Ceramic + Activated Carbon Filter	Aromatic Solvent
	Hydrogenation Plant (purge gas)	30	0.3	Ceramic + Activated Carbon Filter	H ₂ + Aromatic Solvent
	Incinerator & its scrubber	30	0.3	Water Scrubber	PM, SO ₂ , CO, NO _x , HCl, TOC
	HCl Synthesis Unit	30	0.1	Water Scrubbers	HCl
	Chlorination Plant	30	0.3	Acidic/Water Scrubber (3 nos.)	SO ₂ , HCl, Cl ₂
	Chlorination Plant	30	0.3	Alkali Scrubber (3 nos.)	Cl ₂
	Chlorination	30	0.3	Water Scrubber	SO ₂ , HCl, Cl ₂
	Hydrogenation Plant (purge gas)	30	0.3	----	H ₂

Flue Gas Emissions

S. No.	Stack Attached to	Stack Height (m)	Stack Top Dia. (m)	APCM	Expected Pollutants*
Existing					
Soda Ash Division					
1	Boiler - A, B, C & D (100 TPH Each)	100 (Common Stack)	5.04	ESP to Each Boiler	PM, SO ₂ & NO _x
2	DG Set (1000 KVA) 2 No.	24 each	0.2	--	PM, SO ₂ & NO _x
Caustic Soda & CPP Division					
2	Boiler - E (200 TPH)	121 (Common Stack)	4.5	ESP	PM, SO ₂ & NO _x
3	As per EC 2014 Boiler - F (200 TPH) – Not Installed Yet			ESP	PM, SO ₂ & NO _x
4	As per EC 2017 Boiler - G & H (350 TPH each) – Installed One boiler having capacity 410 TPH	121 (Common Stack)	4.5	ESP	PM, SO ₂ & NO _x
5	DG Set (1000 KVA)	30	0.32	-	PM, SO ₂ & NO _x
6	DG Set (1500 KVA)	30	0.32	-	PM, SO ₂ & NO _x
7	DG Set (1500 KVA)				
Toilet Soap plant					
8	Thermic Fluid Heater (3 No.)	45	0.4		PM, SO ₂ & NO _x
Proposed					

Soda Ash Division					
1.	DG Set (2000 KVA)	30	0.32	--	PM, SO ₂ & NO _x
Caustic Soda & CPP Division					
1	Boiler - I & J (410 TPH + 130 TPH) *	121 (Common Stack)	4.5	ESP	PM, SO ₂ & NO _x
2	DG Set (1850 KVA)	30	0.32	--	PM, SO ₂ & NO _x

(xi) Details of solid/hazardous waste generation and its management are as below: -

S. No.	Solid Waste	Quantity (TPD)			Mode of Disposal
		Existing	Proposed	Total	
1	Settling Pond Sludge	880	482	1,362	Shall be used in road construction, salt works bund preparation
2	Lime stone rejects /under size	700	375	1,075	Shall be used in boilers for desulphurization in boilers
3	Brine Sludge	19	10	29	Non-hazardous; Shall be used dumped in identified area
4	Fly ash/ Bottom ash	2,185	1,693	3,878	Brick manufacturing, bund preparation, road making etc...
5	Incineration Ash	15	--	15	Brick manufacturing, bund preparation, road making etc...
6	Saponification Solid Waste	3	0	3	Non-hazardous; Shall be dumped in identified area

(xii) Existing Product list and Proposed Product list

S. No.	Project or activity	Capacity (TPD)		
		Existing	Proposed	Total
Soda Ash Plant				
1.	Light Soda Ash Plant	2,800	1,500	4,300
2.	Dense Soda Ash*	1,800	600	2,400
Ash * Dense Soda is conversion of Light Soda Ash				
Caustic Soda Plant				
1.	Caustic Soda (100%)	750	250	1,000
2.	Hydrochloric Acid (100%)	280	220	500
Caustic Soda Plant – By Products				
1.	Chlorine Gas (100%)	665.2	220.8	886
2.	Hydrogen (100%)	18.75	6.25	25
3.	Sodium Hypo Chlorite	12	3	15

	(100%)			
Captive Thermal Power Plant				
1.	Captive thermal Power Plant	197.18 MW	152.82 MW	350MW

33.4.3.2 During deliberations, the EAC noted that the proposal is for terms of reference to the project for expansion of Soda Ash production from 2,800 TPD to 4,300 TPD, Caustic Soda from 750 TPD to 1,000 TPD and Captive Power Plant from 197.18 MW to 350 MW in the existing area of 2249458 sq m at Kalatalav, Bhavnagar (Gujarat) by M/s Nirma Ltd.

The project/activities are covered under category A of item 4(e) 'Soda ash Industry', item 4(d) 'Chlor-alkali industry' & item 1(d) 'Thermal Power Plants' of the schedule to the EIA Notification, 2006, and thus requires appraisal at central level by the sectoral EAC in the Ministry.

Environmental clearance for the present industrial operations (Soda Ash Plant-2800 TPD, Caustic Soda Plant-750 TPD and CPP-197.18 MW) was granted on 10th March, 2017 in favour of M/s Nirma Ltd. Public hearing for the same was conducted on 7th January, 2016.

33.4.3.3 *The EAC, after deliberations, recommended the project 'Expansion of Soda Ash production from 2,800 TPD to 4,300 TPD, Caustic Soda from 750 TPD to 1,000 TPD and Captive Power Plant from 197.18 MW to 350 MW' for grant of terms of reference for preparation of EIA/EMP reports to enable consideration of the proposal for environmental clearance. The scope of the work/study shall include the standard ToR specified/notified for such project/activity, and the additional terms and conditions as under:*

- *Effluent treatment should conform to the Zero Liquid Discharge system, and compliance with the directives of CPCB for online continuous monitoring system, if any, to be ensured.*
- *Public hearing/consultation to be conducted by the State Pollution Control Board as per the provisions of the EIA Notification, 2006.*
- *Monitoring report on compliance status of the existing environmental clearance, duly certified by the concerned Regional Office of the Ministry to be submitted.*
- *Consent to operate for the existing industrial operations shall be obtained/renewed from the SPCB.*
- *Plantation/greenbelt should cover 33% of the total project area*

Agenda No.33.4.4

Polyol/Propylene Glycol/Mono Ethylene Glycol Petrochemical Project by M/s Bharat Petroleum Corporation Ltd at Kochi Refinery at Ernakulam (Kerala) - ToR

[IA/KL/IND2/71215/2017, IA-J-11011/552/2017-IA-II(I)]

33.4.4.1 The project proponent made a detailed presentation on the salient features of the project and informed the following-

- (i) The proposal is for terms of reference to 'Polyols/Propylene Glycol/ Mono Ethylene Glycol Petrochemical Project' at Kochi Refinery by M/s Bharat Petroleum Corporation Limited.
- (ii) All Petrochemical Projects are listed at S.No.5 (c) of Schedule of Environmental Impact Assessment (EIA) Notification, 2006 under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).
- (iii) Total 193.6 acres land will be used for the project. Industry will develop greenbelt in 33% of the project area. The estimated project cost is Rs.8967 crore. There are no National parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Hill Palace museum, an area of archaeological importance is located at a distance of 7 km from the site.
- (iv) Total water requirement is approximately 32 million litres per day. Effluent of the complex will be treated through waste water treatment plant.
- (v) Power requirement will be approximately 104 MW and is proposed to be met from state grid/ Gas turbines/ Back pressure turbines. DG sets will be used as standby during power failure. Stack height will be provided as per CPCB norms for the proposed DG sets.
- (vi) Additional fired boiler will be installed. Multi cyclone separator/bag filter with a stack height as per norms will be installed for controlling the particulate emissions within statutory limit of 115 mg/Nm³ for the proposed boilers
- (vii) Details of process emissions generation and its management – Gas Turbines (GT), Heaters, Incinerators & Boilers are proposed to be installed. LNG, HSD, fuel oil/gas/effluent gas will be used as fuel. Expected increase in SOx will be approx 240 kg/hr. Emissions will be maintained within stipulated norms. The industrial liquid effluent expected from the proposed project will be treated to comply with MoEFCC/CPCB norms. Treated effluent will be recycled, reused wherever possible for green belt development, fire-water make-up of the complex etc. and the balance effluent of approximately 60 m³/hr is proposed to be discharged to the existing point of discharge.
- (viii) Details of solid/hazardous waste generation and its management- Spent catalyst will be sent for precious metal recovery wherever applicable. Non-hazardous solid waste will be disposed to landfill as per norms.

(ix) Proposed Products and their Capacities

Product*	Production (TPA)
Polyols	250,000
Propylene Glycol	100,000
Mono Ethylene Glycol	110,000

(*) – By-products generated will also be considered for sales

33.4.4.2 During deliberations, the EAC noted that the proposal is for terms of reference to the project for setting up petrochemical complex for manufacturing Polyols (250,000 TPA), Propylene Glycol (100,000 TPA) and Mono Ethylene Glycol (110,000 TPA) by M/s Bharat Petroleum

Corporation Limited in a total area of 1550 acre at Kochi Refinery Complex, Village Puthencruz, Ernakulam (Kerala).

The project/activities is covered under category A of item 5 (c) 'Petrochemical complexes' of the schedule to the EIA Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

33.4.4.3 *The EAC, after deliberations, recommended the project 'Petrochemical Complex for manufacturing Polyols (250,000 TPA), Propylene Glycol (100,000 TPA) and Mono Ethylene Glycol (110,000 TPA)' promoted by M/s BPC Ltd in a total area of 1550 acre at Kochi Refinery Complex, for grant of terms of reference for preparation of EIA/EMP reports to enable consideration of the proposal for environmental clearance. The scope of the work/study shall include the standard ToR specified/notified for such project/activity, and the additional terms and conditions as under:-*

- *Effluent treatment should conform to the Zero Liquid Discharge system, and compliance with the directives of CPCB for online continuous monitoring system to be ensured.*
- *Public hearing/consultation to be conducted by the State Pollution Control Board as per the provisions of the EIA Notification, 2006.*
- *Monitoring report on compliance status of the environmental clearance for the Refinery, duly certified by the concerned Regional Office of the Ministry to be submitted.*
- *Consent to operate for the existing industrial operations (Refinery) shall be obtained/renewed from the SPCB.*
- *Plantation/greenbelt should cover 33% of the total project area*

Day 3: 24th January 2018

33.5 Any Other

Agenda No.33.5.1

Expansion of Sugar plant, Co-Generation, Refinery & Distillery by M/s Shri Gurudatt Sugars at Gut No.61/A, Akiwat, Takaliwadi Road, Takaliwadi, Taluka Shirol, District Kolhapur (Maharashtra) - Amendment in ToR

[IA-J-11011/304/2017-IA-II(I)]

33.5.1.1 The Ministry vide letter dated 17th August, 2017 has granted terms of reference to the project for expansion of sugar plant from 6000 TCD to 13000 TCD, Co-generation 21 MW to 90 MW and setting up molasses based distillery of 150 KLPD by M/s Shri Gurudatt Sugars Ltd at Gut No. 61/A, Akiwat- Takaliwadi Road, Takaliwadi, Taluka Shirol, District Kolhapur (Maharashtra).

33.5.1.2 The project proponent has requested for amendment in the said ToR, with the details as under:

S. No.	Para of ToR	Details as per the ToR	To be Revised /Read as	Justification/reasons

1.	In this regard, under the provisions of the EIA Notification 2006 as amended, the Standard ToR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed with public consultation.	As per received ToR public consultation is mandatory for this project.	Exemption for Public Consultation	Public Hearing has been already conducted for the existing project on Date 24 th August 2016 and the EC has been granted on Date 20 th March 2017. We have made our application for expansion on 31 st May 2017 requesting for exemption from public hearing for the expansion.
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33.5.1.3 During deliberations, the EAC noted that the Ministry had earlier issued environmental clearance on 20th March, 2017 to the expansion project of sugar plant. However, consent to operate for the same has not been obtained from the State Pollution Control Board, and the project is yet to be made operational. As such, there seems no locus standii to accept the proposal for further expansion and/or amendment in the standard ToR dated 17th August, 2017 issued by the Ministry.

The proposal was, therefore, deferred.

Agenda No.33.5.2

Expansion of Existing Synthetic organic chemical manufacturing unit to Proposed Bulk Drugs and Intermediates Manufacturing Unit by M/s Octane Chemicals Pvt Ltd at Sy.No.168/3, Anthampally Village, Bhiknoor Mandal, Kamareddy District (Telangana) - Amendment in ToR

[IA-J-11011/319/2017-IA-II(I)]

33.5.2.1 The Ministry vide letter dated 17th August, 2017 has granted terms of reference (ToR) to the project for expansion of synthetic organic chemical manufacturing unit to Bulk Drugs and Intermediates Manufacturing Unit by M/s Octane Chemicals Pvt Ltd at Sy.No. 168/3, Anthampally Village, Bhiknoor Mandal, District Kamareddy (Telangana).

33.5.2.2 The project proponent has requested for amendment in the said ToR with the details as under:

S. No.	Para of ToR	Details as per the ToR	To be revised/ read as	Justification/ reasons
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1.	Standard ToR issued for Expansion of Existing Synthetic organic chemical manufacturing unit to Proposed Bulk Drugs and Intermediates Manufacturing Unit with Public Consultation.	In this regard, under the provisions of the EIA Notification 2006 as amended, the Standard ToR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed with public consultation as follows:	In this regard, under the provisions of the EIA Notification 2006 as amended, the Standard TOR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed without public consultation as follows:	We have obtained Environmental Clearance vide File No: J-11011/43/2015- IA II (I) Dt: 29 – 06 – 2016 for manufacturing of Synthetic organic chemical (Cetyl Chloride) of 40 MT/Month for which we have conducted Public Hearing on 10.02.2016. In last one year, the product demand has considerably reduced in India which may result the project sustainability is a question mark. Hence, we have not initiated any construction activity and not obtained Consent from SPCB. As there is no considerable expansion is carrying out. Hence, we request you to kindly exempt from public Consultation.
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33.5.2.3 During deliberations, the Committee noted that the project was earlier granted EC vide letter dated 29th September, 2016 for manufacturing Cetyl Chloride of 40 TPM. However, due to no market demand of the said product, the project was not taken forward. Even, no CTE/CTO was taken from SPCB.

Now it is proposed to manufacture other bulk drugs, intermediates and Cetyl Chloride (15 TPM) of total capacity of 55 TPM in the same premises. The Standard ToR for the revised scope of work was granted on 17th August, 2017 stipulating the condition for public hearing. Now, the project proponent has sought amendment in respect of exemption of public hearing.

33.5.2.4 *The Committee, after deliberations, observed that due to the earlier project not taken up and the scope of work now revised to effect increase in production capacity and also change in product series/mix, there is no rationale for amending the standard ToR in respect of exemption of public hearing. The proposal was, therefore, not recommended.*

Agenda No.33.5.3

Expansion of Synthetic organic chemicals (APIs & Drug Intermediates Manufacturing) by M/s Kumar Organic Products Limited at Plot No.377&379, Village Luna, Maitri Marg, Canal Road, Taluka Padra, District Vadodara (Gujarat) - Amendment in ToR

[J-11011/157/2016- IA II (I); IA/GJ/IND2/53482/2016]

33.5.3.1 The Ministry vide letter dated 3rd August, 2016 has granted terms of reference (ToR) to M/s Kumar Organic Products Limited to the project for expansion of Synthetic Organic Chemicals Manufacturing Unit from 1946 MTPA to 7800 MTPA at Plot No.377&379, Village Luna, Maitri Marg, Canal Road, Taluka Padra, District Vadodara (Gujarat).

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

S. No	Para of ToR	Details as per the ToR	To be revised/ read as	Justification/ Reasons
1.	A. The specific ToR, Point no. 5.	Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.	The primary treated industrial effluent can be sent to CETP (Enviro Infrastructure Company Limited - EICL, Umaraya Village) for treatment and disposal by CETP itself,	As we are a small scale unit, the implementation of Zero Liquid Discharge (ZLD) for our effluents is too costly and commercially unviable for us.
2.	B. Additional ToR, Point no. iv.	Industrial effluent treatment shall be based on segregation of effluent stream into high TDS effluent stream and low TDS effluent stream. Plant should be based on zero liquid discharge concept and treatment scheme should be designed accordingly.	Domestic wastewater can be sent to soakpit, for the existing as well as proposed project.	The Effluent will be given to local CETP operator viz, TSDF approved Nandesari Environment Control Ltd (NECL) for Solid waste and Enviro Infrastructure Company Ltd (EICL) for liquid waste.

				Therefore KOPL request MoEF&CC to waive the ZLD for our existing and proposed facilities.
3.	B. Additional ToR, Point no. iii.	No ground water shall be used for the existing as well as proposed project.	Ground water can be used for the existing as well as proposed project.	As the river Mahi is about 2.2 km from the factory and also there is no water distribution network, we are unable to bring Mahi river water to our factory.

33.5.3.3 During deliberations, the Committee noted that the project is not located in any Industrial area, and also there is no confirmation regarding operational status of the CETP. Moreover, given the large expansion of the unit from 1946 TPA to 7800 TPA, and treatment of the considerable increase in effluent generation, it may not be logical to change the effluent treatment scheme and the mode of disposal from ZLD to the CETP.

In case of amendment for permission to use ground water, it was observed that the unit is using ground water of 94 cum/day for the present industrial operations, without obtaining clearance from the CGWA/Statutory authority. Accordingly, for the proposed expansion, it would not be appropriate to allow more withdrawal of ground water.

33.5.3.4 *The EAC, after deliberations, was not agreed to the proposed amendments, and the proposal was, therefore, not recommended.*

Agenda No.33.5.4

Expansion of Manufacturing of Synthetic Resin Adhesive by M/s Jyoti Resins & Adhesives Ltd at 405-406, Rajkamal Plaza-B, Opp. Sakar-III, Income Tax, Ahmedabad, Gandhinagar- (Gujarat) - Amendment in ToR

[IA/GJ/IND2/67445/2017, IA-J-11011/429/2017-IA-II(I)]

33.5.4.1 The Ministry vide letter dated 29th September, 2017 has granted terms of reference (ToR) for the project 'Expansion of Synthetic Resin Adhesive Manufacturing' by M/s Jyoti Resins & Adhesives Ltd.

33.5.4.2 The project proponent has now requested for amendment in the ToR with the details as under;

S. No.	Para of ToR issued by MoEF& CC	Details as per the ToR/EC	To be revised/ read as	Justification/ reasons
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1	In this regard, under the provisions of the EIA Notification 2006 as amended, the Standard TOR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed with Public Consultation as follows:	In this regard, under the provisions of the EIA Notification 2006 as amended, the Standard TOR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed with public consultation as follows:	Exemption of Public Hearing	Public hearing had been conducted on 27/02/2015 in the same area for the Expansion of Manufacturing of Synthetic Resin Adhesive” at S. No. 873, Opp. Anand Health Care, Ranchhodpura Road, Village: Santej, Taluka: Kalol, District: Gandhinagar, Gujarat, India by M/s. Jyoti Resins & Adhesives Ltd. which is not older than 3 years and also the storage of chemicals are within the threshold limit as per the MSIHC rules, 1989 & its subsequent amendment.
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33.5.4.3 During deliberations, the Committee noted the project for expansion of synthetic resin adhesive (PolyVinyl Acetate) from 196 TPM to 750 TPM was earlier granted EC by SEIAA vide letter date 28th June, 2016 based on the public hearing conducted on 27th February, 2015 by SPCB. During the public hearing, there were no objections to the project, rather the local people welcomed the expansion due to no pollution load and local employment.

33.5.4.4 *The EAC, after deliberations, observed that the public hearing is in fact required to consider the proposal for environmental clearance to the proposed expansion from 750 TPM to 1650 TPM. However, in view of the proceedings of the earlier public hearing, no significant increase in water consumption and pollution load, the Committee recommended for exemption from the public hearing, and amendment in the ToR accordingly.*

Agenda No.33.5.5

Extension Drilling and Testing of Hydrocarbons at 7 locations by M/s Oil India Limited under Dibru-Saikhowa National Park area, North-west of Baghjan PML, District-Tinsukia (Assam) - Amendment in ToR

[IA/AS/IND2/57862/2016, J-11011/150/2016- IA II(I)]

33.5.5.1 *The Committee noted that the proposal was already considered in its meeting held on 27-28 February, 2017 and recommended for the amendment in the ToR.*

As the proposal is inadvertently included in the agenda, the proposal was deemed to be null and void.

Agenda No.33.5.6

Expansion of synthetic organics by M/s Meghmani Finechem Ltd at Plot No. CH-1/CH-2, GIDC Estate, Dahej, Taluka Vagra, District Bharuch (Gujarat) - Amendment in ToR

[IA/GJ/IND2/67092/2013, J-11011/13/2014-IA II(I)]

33.5.6.1 The Ministry vide letter dated 11th August, 2014 had granted terms of reference (ToR) to the project for expansion of Chlor-Alkali Plant and manufacturing of New Agro-Intermediates & Synthetic Organic Products by M/s Meghmani Finechem Limited. The ToR was amended on 28th October, 2016 in respect of change in product mix.

33.5.6.2 The project proponent has now requested for amendment in the ToR with the details as under:

S. No	Para of ToR	Details as per the ToR			To be revised / read as			Justification / Reasons
		S. N.	Product	Capacity, TPM	S. N.	Product	Capacity, TPM	
1	Para 1 of ToR Amendment Letter Dated 20 th May, 2016	1	Chloromethane	6000	1	Chloromethane	6000	Due to change in project contours and fulfilment of additional power requirement by way of power trading, we have decided to drop / withdraw the capacity expansion of Captive Power Plant (65 MW), for the time being. In view of this, it is confirmed that there will be no expansion in Power Plant (from 65 MW to 130 MW).
		i	C2	4080	i	C2	4080	
		ii	C3	1680	ii	C3	1680	
		iii	C4	240	iii	C4	240	
		2	Captive Power Plant	65 MW				
2	69	ToRs prescribed by the Expert Appraisal Committee (Industry)	ToRs prescribed by the Expert Appraisal	Public Consultation is				

S. No	Para of ToR	Details as per the ToR	To be revised / read as	Justification / Reasons
		<p>shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in the form of tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.</p>	<p>Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.</p>	<p>not required for the proposed expansion project due to the following reasons:</p> <p>The project does not involve expansion in Power Plant;</p> <p>Project falls in Notified Industrial Area of PCPIR, who has received EC vide F. No. 21-49/2010-IA-III dated 14th September 2017.</p>
3	70	<p>The ToRs prescribed shall be valid for a period of two years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).</p>	<p>The ToRs prescribed shall be valid for till 10th August, 2018 for submission of the EIA-EMP reports.</p>	<p>First ToR provided vide letter dated 11th August, 2014 to be extended upto four years.</p>

33.5.6.3 During deliberations, the EAC noted that ToR dated 11th August, 2014 for the above project, was initially valid for a period of two years. In view of this Ministry's OM dated 8th October, 2014, the validity got extended up to 11th August, 2017. There was no proposal by the project proponent before expiry of the ToR, for extending its validity further for one year. As of now, the ToR being no more valid, the proposal for amendment therein, may not be accepted.

The project proponent informed the Committee about amendment already allowed in a similar case of M/s Grasim Industries Ltd in the same GIDC Estate, Dahej, where the EC has been recently granted by the Ministry. The Committee took a serious note of the same and assured to take the uniform approach.

33.5.6.4 *The Committee, after deliberations, noted that the ToR dated 11th August, 2014 seeking amendment, already stands expired on 11th August, 2017. The present proposal submitted after its expiry, is not admissible for amendment in terms of the extant norms/guidelines of the Ministry. Further, the Committee in view of the assertion of the project proponent, desired that the Ministry may examine the proposal and take a view to ensure uniformity in all such cases.*

Agenda No.33.5.7

Establishment of Pesticides industry and pesticide specific intermediates (excluding formulations) & Synthetic organic chemicals manufacturing unit by M/s Prasol Chemicals Limited at Plot No. FS-30, Addl Mahad MIDC situated in Raigad District (Maharashtra) - Amendment in ToR

[IA/MH/IND2/62822/2017, IA-J-11011/70/2017-IA-II(I)]

33.5.7.1 *The project proponent did not attend the meeting. The proposal was, therefore, deferred.*

Agenda No.33.5.8

Manufacturing of Bulk drugs intermediates by M/s J R CORPORATION at Plot no. B/1085, Lamdapura road, Village Manjusar, Taluka Savli, District Vadodara (Gujarat) - Amendment in ToR

[IA/GJ/IND2/62317/2016, J-11011/356/2016-IA II(I)]

33.5.8.1 The Ministry vide letter dated 28th February, 2017 has granted terms of reference (ToR) to the project for expansion of Bulk drugs and its intermediates at Plot no. B/1085, Lamdapura road, Village Manjusar, Taluka Savli, District Vadodara (Gujarat) promoted by M/s J. R. Corporation.

33.5.8.2 The project proponent has now requested for amendment in the said ToR, with the details as under:

S. No.	Para of ToR	Details as per the ToR	To be revised / read as	Justification / reasons
1	Subject	Manufacturing of Bulk	Manufacturing of Bulk	We are going to

		drugs intermediates	drugs and its intermediates.	manufacture bulk drugs and its intermediates
2	Para (4) point iii	Project cost 20 crores	Project cost 5 crores	Restructuring of project
3	Para (4) point v	There is flue gas emission from existing boiler stack having capacity of 0.8 T/Hr. The unit will be proposed another two Boiler- 2 TPH, one Thermo pack- 2 lacs kcal/hr and one D.G.Set There will be process Emission from Sulphanation reactor, Chlorination and Bromine reactor.	There is flue gas emission from existing boiler stack having capacity of 0.8 T/Hr. The unit will be proposed another one Boiler- 1 TPH, one Thermo pack- 2 lacs kcal/hr and one D.G.Set There will be process Emission from 2 stacks. Sulphonation and chlorination.	Restructuring of project
4	Para (4) point vi	The existing connected load is 60 HP. Additional load will be 100 HP. It will be met through Madhya Gujarat Vij Company Ltd. In existing, Unit is using 1.5 T/day wood as fuel for boiler. After Proposed expansion, unit will be using bio-coal (4 MT/day) as a fuel for two boilers (1 TPH Each), furnace oil (200 Litres/day) thermo pack (2 Lakh K.cal/Hr.) and diesel (100 Litres/day) for two DG sets of 50 KVA.	The existing connected load is 60 HP. Additional load will be 440 HP. It will be met through Madhya Gujarat Vij Company Ltd. In existing, Unit is using 1.5 T/day wood as fuel for boiler. After Proposed expansion, unit will be using bio-coal (2 MT/day) as a fuel for one boilers (1 TPH Each), furnace oil (200 Litres/day) thermo pack (2 Lakh K.cal/Hr.) and diesel (100 Litres/day) for one DG set of 150 KVA.	Restructuring of project
5	Para (4) point vii	The unit will use 40.00 KL/Day water. 35.00 KL/Day of water will be used for the Industrial purpose and 5.00 KL/Day will be used for Domestic purpose.	Total water consumption after proposed expansion will be 76.565 KLD (27.5 KLD(Recovered)+49.025 KLD(Fresh)) Domestic: 5.5 KLD Industrial: 71.025 KLD	Restructuring of project. Original form-I and PFR submitted was for 241.525 KLD Domestic: 5.5 KLD Industrial: 236.025 KLD
6	Para (4)	The total waste water generation will be 19.00	Total wastewater generation after proposed	Restructuring of project. Original form-I and PFR

	point viii	KL/Day. The industrial waste water generation will be 15.00 KL/Day and domestic waste water generation will be 4.00 KL/Day.	expansion will be 48.35 KLD Domestic: 4.35 KLD Industrial: 44 KLD	submitted was for 225.35 KLD Domestic: 4.35 KLD Industrial: 221 KLD
7	Para (4) point ix	The hazardous waste generation from proposed expansion will be <ul style="list-style-type: none"> • Residue & waste- 188 T/Month, • Spent Catalyst-12.29 T/Month, • Spent Solvent-35 T/month, • Spent solid- 394 T/month, • Discarded Containers- 600 Nos./year and • ETP sludge-2-3 t/month. 	The hazardous waste generation from proposed expansion will be <ul style="list-style-type: none"> • Residue & waste- 5 T/Month, • Spent Catalyst/Spent carbon-2 T/Month, • Distilled Solvent-50 T/month, • Discarded Containers- 600 Nos./year and • Crude sodium acetate-8T/month. • ETP sludge- 45 MT/Month 	Restructuring of project.
8	point (3) paraA sub point (iii)	Zero Liquid Discharge to be adopted.	The unit already have certificate of CETP for sending 15 KLD effluent.	Request to send 15 KLD effluents to CETP.

33.5.8.3 During deliberations, the Committee noted that amendment in the ToR dated 28th February, 2017 has been sought in respect of number of issues including change in product series, fresh water requirement, boiler capacity, wastewater generation and effluent discharge. The same would amount to substantial deviation from the ToR issued.

33.5.8.4 *The Committee observed that amending the said ToR might not be accepted in such a case. The project proponent was asked to apply afresh for the ToR.*

Agenda No.33.5.9

Expansion of Active Pharmaceuticals Ingredients (APIs) and API Intermediates Manufacturing unit with R&D facility (11600.2 TPA) by M/s Porus Laboratories Pvt. Ltd. Unit-

IV at Sy. No. 87, 98/2, 98/3, 98/4, 98/5, 98/6, 98/7, 99/1c, 99/2c, 92/10, 106/1c, 106/2c, 107/2a, 107/2b, 107/3, 108/1b, 108/2, 98/1, 230/2a, 230/2c, 229/13 and 229/8, with 3 MW coal/husk/pellets based Captive Power Plant at Village Akkireddigudem & Ramanakkapeta, Tehsil Musunuru, District Krishna (Andhra Pradesh) - Amendment in ToR

[IA/AP/IND2/62432/2015, J-11011/265/2015-IA-II(I)]

33.5.9.1 The Ministry vide letter dated 23rd January, 2017 has granted terms of reference (ToR) to the project for expansion of APIs and API Intermediates manufacturing unit with 3 MW Captive Power Plant at Sy. Nos.87, 92/10, 106/1c, 106/2c, 107/2a, 107/2b, 107/3, 108/1b and 108/2, Akkireddigudem (V), Musunuru (M), District Krishna (Andhra Pradesh) promoted by M/s Porus Laboratories Pvt Ltd (Unit-IV).

33.5.9.2 The project proponent has now requested for amendment in the said ToR 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 - In Subject Line No.2, - Line 2 of 2 nd paragraph 2 (i), Page No. 2 - last row in the Proposed Products table Page No. 3 - Line 6 of 3 rd paragraph	11600.2 TPA	11601 TPA	As per the ADS from MoEF&CC dated 25-1-2016, we have revised proposal by reducing the area, sry. No., village names etc., and submitted the Form 1 application & Prefeasibility report through online dated 29-01-2016. However in ToR sry.no., village name, prod. Quantities are mentioned as per original Form 1 application. Hence request to
2.	Page No. 1, - In Subject Line No.2, - Line 3 of 2 nd paragraph 2 (i) Page No.3 - Line 7 th of 3 rd paragraph	Sy. Nos.: 87, 98/2, 98/3, 98/4, 98/5, 98/6, 98/7, 99/1c, 99/2c, 92/10, 106/1c, 106/2c, 107/2a, 107/2b, 107/3, 108/1b, 108/2, 98/1, 230/2a, 230/2c, 229/13 and 229/8	Sy. Nos.: 87, 92/10, 106/1c, 106/2c, 107/2a, 107/2b, 107/3, 108/1b and 108/2	
3.	Page No. 1, -In Subject Line No.5, -Line 6 of 2 nd paragraph 2 (i) Page No. 3 - Line 10 of 3 rd paragraph	Akkireddigudem & Ramanakkapeta (V)	Akkireddigudem (V)	
4.	Page No. 2 Product No. 3 i.e. 1,5-Bis-[2,6-dimethyl-4-(2-methyl-2-propenoxy) phenyl]-penta-(2,6-	Quantity : 500.4 TPA	Quantity : 500 TPA	

	dimethyl-1,4-phenyleneoxide (MX-9000) in the Proposed Products table			consider as per Revised Form 1 application.
5.	Page No. 2 Product No. 7 i.e. 4-Nitro-N-Methyl Phthalimide (4-NPI) in the Proposed Products table	Quantity : 5000.4 TPA	Quantity : 5000 TPA	
6.	Page No. 3, Line 1 of 2 nd paragraph 2 (ii)	Total Plot area is 25009 m ² of which greenbelt will be developed in the area of 8590 m ²	Total Plot area is 102251.4 m ² of which greenbelt will be developed in the area of 47248.64 m ²	The area mentioned in ToR is not as per the both Form 1 applications. (original and revised)
7.	Page No. 3, Line 1 of 2 nd paragraph 2 (iii)	Wild Life Issues <ul style="list-style-type: none"> • amanakkapeta R.F. (Dense Scrub) at 0.85 km (NW) and Ramanakkapeta R.F. (Fairly Dense Scrub) at 4.8 km (NW) • omavaram R.F. (Dense Scrub) at 3 km (NE) • opudi R.F. at 4.5 km (E) • ummagudem R.F. at 3.9 km (N) and Tummagudem R.F. (Open Scrub) at 7 km (N) • rugolanupeta R.F. at 8 km (NW) • nnavaram R.F. at 8.5 km (SW) 	<ul style="list-style-type: none"> • amanakkapeta R.F. (Dense Scrub) at 1 km (W) and Ramanakkapeta R.F. (Fairly Dense Scrub) at 2.5 km (NW), • omavaram R.F. (Dense Scrub) at 2.6 km (NE), • opudi R.F. at 3.4 km (E), • ummagudem R.F. at 3.5 km (NNW) and Tummagudem R.F. (Open Scrub) at 7.2 km (NNW), • rugolanupeta R.F. at 8 km 	As per the ADS from MoEF&CC dated 25-1-2016, we have revised proposal by reducing the area, sy. No., village names etc., and submitted the Form 1 application & Prefeasibility report through online dated 29-01-2016. Distance and direction are changed as per reduced project area in the Revised Form 1 application.

			(NW), • nnavaram R.F. at 8.5 km (SW)	
8.	Page No. 3 Line No. 1 of 2 rd paragraph 2 (v)	Cost of Project is Rs. 81.052 Crore	Cost of Project is Rs. 80.25 Crore	As per Revised Form 1 application for issue of ToR.

33.5.9.3 During deliberations, the Committee noted that amendment in the ToR dated 23rd January, 2017 has been sought in respect of product capacity, plot area, village name and project cost. The Committee observed that request of project proponent is actually correction in the ToR, rather than amendment. The committee accepted the above mentioned corrections.

Agenda No.33.5.10

Drilling of Exploratory wells (50 Nos) in 9 PML Blocks by M/s Oil and Natural Gas Ltd in Tripura - Amendment in Environmental Clearance

[IA/TR/IND2/27359/2015, J-11011/109/2015-IA II (I)]

33.5.10.1 The proposal is for amendment in the Environmental Clearance (EC) granted by the Ministry vide letter dated 13th September, 2017 for the project 'Drilling of 37 Exploratory Wells in 9 PML Blocks in Tripura by M/s Oil and Natural Gas Corporation Ltd due to change in location of 10 wells.

33.5.10.2 The project proponent has requested for amendment in the environmental clearance to change the drilling locations of 10 locations in the same block as under:

S. No.	As per EC		Amendment to EC	
	Location Name	Location Co-ordinates	Location Name	Location Co-ordinates
1	NLAD-7	Lat.: 23 44 23.640 N Long.: 91 14 06.720 E	ROBE	Lat.: 23 44 35.968 Long.: 91 10 43.247
2	NLTM-4	Lat.: 23 07 46.200 N Long.: 91 47 37.680 E	TMAA	Lat.: 23 09 15.36 N Long.:91 46 06.51 E
3	RAD-43	Lat.: 23 46 30.720 N Long.: 91 21 29.880 E	ADAQ	Lat.: 23 46 18.221 Long.: 91 19 52.271
4	NLAD-6	Lat.: 23 43 23.880 N Long.: 91 12 46.440 E	ROAH_SUB	Lat.: 23 42 22.197 N Long.: 91 10 55.445 E
5	NLBJ-2	Lat.: 23 33 44.950 N Long.: 91 20 53.490 E	SDAI	Lat.: 23 32 29.60 N Long.: 91 21 07.90 E
6	NLTM-6	Lat.: 23 05 00.600 N Long.: 91 45 14.400 E	TMAB	Lat.: 23 05 32.66 N Long.: 91 47 50.13 E
7	NLTM-5	Lat.: 23 07 26.350 N Long.: 91 48 21.640 E	TMAC	Lat.: 23° 07' 33.844" Long.:91° 46'

				45.661”
8	NLKU-7	Lat.: 23 51 57.410 N Long.: 91 15 26.180 E	KUAK	Lat.: 23 54 18.402 N Long.: 91 15 50.843 E
9	NLKU-5	Lat.: 23 53 29.490 N Long.: 91 21 04.660 E	KUAL	Lat.: 23 54 59.04 N Long.: 91 19 22.20 E
10	NLBR-9	Lat.: 23 32 53.880 N Long.: 91 31 47.280 E	SDAL	Lat.: 23 31 20.33 N Long.: 91 23 27.59 E

33.5.10.3 During deliberations, the EAC noted that the said EC does not find mention about the coordinates of wells, and thus requiring no amendment therein. However, since the coordinates of drilling locations is a part of the EIA/EMP report submitted by the project proponent, the proposed changes may be taken on record as part of amendment in the proposal itself.

Agenda No.33.5.11

Setting up of Bulk drugs manufacturing plant by M/s Torrent Pharmaceuticals Limited Oncology at Survey No. 102/p, 105/p, 106, 119,120/p, 121, 73, 74, Ahmedabad–Mehsana Highway, Village Bileshwarpura, Taluka Kalol, District Gandhinagar (Gujarat) - Amendment in Environmental Clearance

[IA/GJ/IND2/53242/2016, J-11011/129/2016- IA II(I)]

33.5.11.1 The proposal is for amendment in the Environmental Clearance (EC) granted by the Ministry vide letter dated 6th November, 2017 for Bulk Drug manufacturing project at Survey No. 102/p, 105/p, 106, 119, 120/p, 121, 73, 74, Village: Bileshwarpura, Taluka: Kalol, District: Gandhinagar to M/s Torrent Pharmaceuticals Limited (Oncology).

33.5.11.2 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.	Para 11 (o)	The green belt over 33% of the total project area shall be developed with at least 10m wide along the plant periphery, in downward wind direction, and along road sides etc. As many as 25000 trees to be	The green belt over 33% of the total project area shall be developed with at least 5m wide along the plant periphery, in downward wind direction, and along road sides etc. As many as 5000 trees to be planted per year during first five years in the green belt and nearby public places,	<ul style="list-style-type: none"> ➤ As a responsible corporate group we shall put in all efforts to plant as many trees as feasible within the plant premises and other manufacturing sites as well public places (schools, hospital compounds and village lakes) subject to availability of such large public place. ➤ 5000 trees per year shall be difficult to plant and maintain for consecutive five years period

		planted per year during first five years. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.	schools, hospital compounds and village lakes. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. In addition to this, 500kW solar power plant to be installed in any of the manufacturing facility.	and hence we therefore request you to allow us to plant 5000 trees per year over a period of 5 years. ➤ e also propose to install a 500 KW solar power plant towards contribution for green energy.
2.	Para 11 (v)	Raw material storage should not exceed 3 days at any point of time	Quantity of raw material storage will be less than/equal to 20% of the total annual raw material requirement.	➤ Maintaining and manufacturing of pharmaceutical API with 3 days inventory is impractical and this shall lead to disruption in manufacturing operations impacting the availability of finished API to marketing. ➤ Intermediates and KSM for API have dossier approved route of synthesis as submitted to regulatory authorities at the time of dossier approval. Manufacturer of such Intermediate is done based on finalized process for manufacturing and therefore it is not standard raw material available in market. ➤ These are manufactured by suppliers based on firm orders and supplied in their minimum manufacturing batch size packing. ➤ Therefore a time lag between the date of the order, manufacturing by supplier and subsequent delivery and receipt of the goods (imported RM takes further more time) and testing before it can be

				<p>used for manufacturing is necessary. This is generally in the range of four to five months</p> <p>➤ e therefore request for amendment in this condition from 3 days for raw material and request to allow us to store at the rate of less than/equal to 20 % of the annual raw material requirement.</p>
3.	Para 11 (q)	At least 5% of the total project cost shall be allocated for Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.	At least 2.5% of the total actual project cost shall be allocated for Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.	<p>➤ he proposed anti-cancer API project is highly capital intensive as in order to protect environment and operator, the manufacturing process needs to be carried out under isolators.</p> <p>➤ % of total project cost for ESR will adversely impact on project viability and shall defeat the objective of cheaper anti-cancer drugs.</p> <p>➤ lease allow us to spend 2.5%of actual total project cost towards ESR as is the general norm. This would be over and above our CSR spend.</p>
4.	Para 11 (s)	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 online (24X7) monitoring system for the effluent shall be installed with web camera with night vision capability and flow meters in the channel / drain carrying effluent within the premises. In case of the treated effluent to be utilized for irrigation / gardening, real time monitoring system shall be installed at the ETP outlet.	<p>➤ s far as Liquid effluent is concerned, online monitoring system will be installed as per CPCB guidelines. Data will be uploaded onto the company web site and will also be provided to MoEF&CC, CPCB as well as SPCB.</p> <p>➤ s regards with online monitoring of Air pollution, we would like to stress that our primary fuel will be PNG which is a clean fuel. Hence, concentration of emission shall be always well within the prescribed norms.</p>

		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. In case of the treated effluent to be utilized for irrigation / gardening, real time monitoring system shall be installed at the ETP outlet.		<p>Further, manufacturing of anti-cancer API products is a shift based operation which limits emission to a few instances and not on continuous basis.</p> <p>➤ The Process emissions will be limited in quantum due to very small and low volume batches. These will be discharged through two stage scrubber.</p> <p>➤ There will be no continuous emission.</p> <p>➤ In view of the above, we request you to limit online monitoring to that for liquid effluent only.</p>
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33.5.11.3 *The EAC, after deliberations, recommended the proposed amendments in the environmental clearance dated 6th November, 2017, except that at S. No.2 in respect of storage of raw material. To consider the same, the project proponent was asked to provide more details of all raw materials, their procurement, hazard potential and also the compliance vis-à-vis the MSIHC Rules, 1989.*

Agenda No.33.5.12

Expansion of Bulk Drugs & Intermediates Manufacturing Unit by Sri Krishna Pharmaceuticals Limited at Plot No. B-14/2 MIDC Chincholi, Taluka Mohol, District Solapur (Maharashtra) - Amendment in EC

[IA/MH/IND2/31586/2015, J-11011/267/2015-IA II (I)]

33.5.12.1 The proposal is for amendment in the Environmental Clearance (EC) granted by the Ministry vide letter dated 28th November 2017 for the proposed expansion of Bulk Drugs & Intermediates Manufacturing Unit at Plot No.B-14/2, MIDC Chincholi, Taluka Mohol, District Solapur (Maharashtra) to M/s Sri Krishna Pharmaceuticals Limited.

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

S. No.	Para of EC	As per the EC	To be Revised / Read as	Justification/ reasons
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1.	Page No. 1 Point No.2	The Ministry of Environment, Forest and climate change has examined the proposal for environmental clearance to the project for expansion of Bulk Drugs & Intermediates manufacturing unit from 33 TPM to 50 TPM at Plot No. B- 14/2, MIDC Chincholi, Taluka Mohol, District Solapur (Maharashtra) by M/s Sri Krishna Pharmaceuticals Limited.	The Ministry of Environment, Forest and climate change has examined the proposal for environmental clearance to the project for expansion of Bulk Drugs & Intermediates manufacturing unit from 33 TPM to 83 TPM at Plot No. B- 14/2, MIDC Chincholi, Taluka Mohol, District Solapur (Maharashtra) by M/s. Sri Krishna Pharmaceuticals Limited.	Under existing unit 33 MT/Month of production is done whereas under expansion, SKPL has proposed to produce additional 50 MT/Month i.e. total after expansion the product would be 83 MT/Month (33 MT/Month + 50 MT/Month). Refer Products' quantities given under Sr. No. 2																																																							
2.	Page No.1 Point No. 3	The existing and proposed products are as under:- <table border="1" data-bbox="399 940 756 1864"> <thead> <tr> <th rowspan="2">S. No</th> <th rowspan="2">Prod ucts</th> <th colspan="2">Quantity (TPM)</th> </tr> <tr> <th>Ex ist in g</th> <th>Prop osed</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Folic acid</td> <td>-</td> <td>40</td> </tr> <tr> <td>2.</td> <td>Dom perid one</td> <td>-</td> <td>10</td> </tr> <tr> <td>3.</td> <td>4- Amin o-6 Chlor oben zene 1,3 Disul fona mide (CAD S)</td> <td>18</td> <td>-</td> </tr> <tr> <td>4.</td> <td>Lasa mide</td> <td>15</td> <td>-</td> </tr> </tbody> </table>	S. No	Prod ucts	Quantity (TPM)		Ex ist in g	Prop osed	1.	Folic acid	-	40	2.	Dom perid one	-	10	3.	4- Amin o-6 Chlor oben zene 1,3 Disul fona mide (CAD S)	18	-	4.	Lasa mide	15	-	The existing and proposed products are as under:- <table border="1" data-bbox="829 940 1256 1864"> <thead> <tr> <th rowspan="2">S. No.</th> <th rowspan="2">Produ cts</th> <th colspan="3">Quantity (TPM)</th> </tr> <tr> <th>Exis tin g</th> <th>Pro po sed</th> <th>To tal</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Folic acid</td> <td>-</td> <td>40</td> <td>40</td> </tr> <tr> <td>2.</td> <td>Domp erido ne</td> <td>-</td> <td>10</td> <td>10</td> </tr> <tr> <td>3.</td> <td>4- Amin o-6 Chlor oben zene 1,3 Disul fona mide (CAD S)</td> <td>18</td> <td>-</td> <td>18</td> </tr> <tr> <td>4.</td> <td>Lasa mide</td> <td>15</td> <td>-</td> <td>15</td> </tr> <tr> <td></td> <td>Total</td> <td>33</td> <td>50</td> <td>83</td> </tr> </tbody> </table>	S. No.	Produ cts	Quantity (TPM)			Exis tin g	Pro po sed	To tal	1.	Folic acid	-	40	40	2.	Domp erido ne	-	10	10	3.	4- Amin o-6 Chlor oben zene 1,3 Disul fona mide (CAD S)	18	-	18	4.	Lasa mide	15	-	15		Total	33	50	83	In table presented in EC letter products under existing and proposed expansion, the Total Product quantity column is not reflected.
S. No	Prod ucts	Quantity (TPM)																																																									
		Ex ist in g	Prop osed																																																								
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		Total	33	50		
3.	Page No.2 Point No. 6	The wastewater generation will be increased from 30 m³/day to 371.95 m³/day.	The wastewater generation will be increased from 30 m³/day to 402 m³/day.	Existing Wastewater is 30 m³/day Under Expansion- 371.95 m³/day Total After Expansion would be : Existing 30 m³/day + Proposed 371.95 m³/day = 401.95 m³/day say 402 m³/day Hence Total Final Wastewater after Expansion = 402 m³/day		
4.	Page No.2 Point No. 10	Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), the Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to the project ' Expansion of Bulk Drugs & Intermediates ' manufacturing unit from 33 TPM to 50 TPM by M/s Sri Krishna Pharmaceuticals Limited	Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), the Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to the project 'Expansion of Bulk Drugs & Intermediates' manufacturing unit from 33 TPM to 83 TPM by M/s Sri Krishna Pharmaceuticals Limited	As mention in justification under Sr. No. 1.		

33.5.12.3 *The EAC, after deliberations, noted that the amendments desired are infact based on factual information only as contained in the EIA/EMP reports, and not of any technical nature. Further, neither there is any change in scope of work and/or increase in production capacity. The Committee agreed for the desired corrections as mentioned above.*

Members of the EAC (Industry-2) present during 33rd meeting held on 22-24 January, 2018 at MoEF&CC, New Delhi

1	Dr. J. P. Gupta	Chairman
2	Dr. R. K. Singh	Member
3	Prof. J.R. Mudakavi	Member
4	Dr. Ajay Gairola	Member
5	Prof. N. Nandini	Member
6	Prof. (Dr.) H.R.V. Reddy	Member
7	Ms. Saloni Goel	Member
8	Sh. Paritosh Kumar	Member
9	Sh. Sanjay Bist	Member
10	Prof. (Dr.) Y.V. Rami Reddy	Member
11	Shri S.K. Srivastava	Member Secretary