MINUTES OF 16th EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 8th – 9th December, 2016

VENUE: Brahmputra, First Floor, Vayu Wing, Ministry of Environment, Forest and Climate Change, Indira Paryavaran, Bhawan, Jor Bagh Road, Aliganj, New Delhi - 110 003.

08th December, 2016 (Day 1)

- **16.1** Opening Remarks of the Chairman
- 16.2 Confirmation of the Minutes of the 14th & 15th Expert Appraisal Committee (Industry-2) held on 26th 27th October, 2016 and 10th November, 2016 respectively at Indira Paryavaran, Bhawan, New Delhi.

16.2.1 Correction in minutes of previous EAC meetings:

(I). Expansion & Debottlenecking of Petrochemical Complex, Nagothane Manufacturing Division (NMD) at MIDC, Tehsil Roha, District Raigarh, Maharashtra by M/s Reliance Industries Limited- reg. EC

The Member Secretary informed that the aforesaid project was recommended for EC in 14^{th} EAC meeting held during $26^{th} - 27^{th}$ October, 2016. The PP vide letter no. 612/28112016/NMD/MOEF dated 28^{th} November, 2016 made a request seeking following corrections in the Minutes of the 14^{th} EAC meeting:

Information as given in the MoM	Corrections sought			
PP informed the Committee that ambient air	PP informed the Committee that			
quality monitoring was carried out at 8	Ambient air quality monitoring was			
locations during October 2015 to January	carried out at 10 locations during			
2016	October 2015 to January 2016			
AAQ modelling study for point source	AAQ modelling study for point source			
emissions indicates that the maximum	n emissions indicates that the maximum			
incremental GLC's after the proposed project	t incremental GLC's after the proposed			
would be 2.1 μ g/m ³ ,17.3 μ g/m ³ ,16.2 μ g/m ³	³ project would be 0.1 μ g/m ³ ,1.5 μ g/m ³			
and 1.6 μ g/m ³ with respect to PM , CO, NOx	$14.75 \ \mu g/m^3$ and $1.6 \ \mu g/m^3$ with respect			
& HC.	to PM, SOx and NOx.			
ETP sludge, Spent catalyst will be sent to	ETP sludge disposed at TSDF, Spent			
UCCI. Inorganic waste, ETP sludge and will	catalyst sent to registered recyclers/			

be sent to TSDF.	reprocessors/ TSDF. NMD is a member		
	of a TSDF facility operated by Mumbai		
	Waste Management Ltd. (MWML)		
Fly ash will be sent to brick manufacturers	NMD facilities utilises Natural Gas as		
	its fuel, a clean fuel and no Fly ash		
	generated.		
Organic waste and solvent distillation residue	Organic waste and Spent solvent		
will be sent to Cement Industries.	distillation residue will be sent to		
	registered recyclers/ reprocessors/		
	TSDF.		

The committee after deliberation accepted the aforesaid corrections and directed to modify the minutes of 14th EAC meeting accordingly.

(II). Expansion of Synthetic Organic Unit, Soda Ash Plant, Caustic Soda Plant and CPP at Survey No.478/P, 447-453, 455-457, Village Kalatalav, Tehsil & Tehsil Bhavnagar, Gujarat by M/s Nirma Ltd.- reg EC

The Member Secretary informed that the aforesaid project was recommended for EC in 12^{th} EAC meeting held during $23^{\text{rd}} - 24^{\text{th}}$ August, 2016. The PP vide email (<u>tejalpatel@nirma.co.in</u>) dated 28^{th} September, 2016 made a request seeking following corrections in the Minutes of the 12^{th} EAC meeting:

Information as given in the MoM	Corrections sought
In specific condition no. i.	In specific condition no. i.
ESP alongwith stack of adequate height shall	ESP alongwith stack of adequate height
be provided to additional coal fired boilers to	shall be provided to <i>additional coal</i> /
control particulate emissions within 50	lignite/ pet coke fired boilers to control
mg/Nm3 . At no time, the emission levels	particulate emissions within 50 mg/Nm3
shall go beyond the prescribed standards. In	. At no time, the emission levels shall go
the event of failure of any pollution control	beyond the prescribed standards. In the
system adopted by the unit, the respective	event of failure of any pollution control
unit shall not be restarted until the control	system adopted by the unit, the
measures are rectified to achieve the desired	respective unit shall not be restarted
efficiency. Efficiency of pollution control	until the control measures are rectified
device shall be monitored regularly. Stack	to achieve the desired efficiency.
monitoring report shall be submitted to the	Efficiency of pollution control device
Ministry's Regional Office at Bhopal.	shall be monitored regularly. Stack
	monitoring report shall be submitted to
	the Ministry's Regional Office at

	Bhopal.
In specific condition no. x.	
Effluent generation shall not exceed 581.92 MLD after expansion. Effluent of Soda Ash Plant shall be treated in the effluent treatment plant followed by utilization in salt works for recovery of additional salt and gypsum. Treated effluent shall be discharged in the Malcolm Channel after getting approval from GPCB. The effluent from proposed Caustic Soda plant expansion shall be treated in the ETP and treated effluent shall be utilized for green belt development &/or dust suppression. Effluent from ECH plant after giving adequate treatment will be sent to salt works for salt recovery.	The PP requested that we have already granted consolidated consent & Authorization (CC&A) from Gujarat Pollution Control Board (GPCB) for disposal of 12,000 KLD treated effluent in the Malcom Channel vide GPCB letter no. GPCB/CCA-BHV-12(8)/ID- 16113/359825 dated 18/06/2016.

The committee deliberated on the corrections requested by the PP and accepted the correction in Specific Condition sr. No. (i) as proposed; while the Committee not accepted the correction proposed in Specific Condition Sr. No. x in the Minutes of the 12^{th} EAC meeting held during 23^{rd} - 24^{th} August, 2016

(III). Mordernization of Bulk Drug Unit at Sy No. 52, 134, 138, 139, 140, 159, 160 to 168, 168/1, 183 & 184 of Chippada village and 1 to 4, 6, 45 & 46 and additional survey number 107, 158, 168, to 172 of Chippada and Annavaram Villages, Annavaram Taluka, Bheemunipatnam Mandal, Visakhapatnam District, Andhra Pradesh by M/s. Divi's Laboratories Limited (Unit - 2) – reg TOR

The Member Secretary informed that the aforesaid project was recommended for TOR in 13^{th} EAC meeting held during $26^{\text{th}} - 27^{\text{th}}$ September, 2016. The PP vide email (nageshg@divislabs.com) dated 21^{st} November, 2016 made a request that Production list which is mentioned in TOR minutes is old product list as per EC obtained in 2007. It has been requested to change the list of the products as submitted in Pre-Feasibility Report of the present proposal no. IA/AP/IND2/58641/2016.

The EAC examined the request made by the PP and after deliberation accepted the correction as proposed and directed to modify the Minutes of the 13th EAC (Industry-II) accordingly. The list of proposed products as mentioned in the pre- feasibility report are as follows:

Okg/day as per CFE (14.09.2015)1DI -naproxen (intermediate of NAP/SN) ~19602742Naproxen (sodium) (1600 MTA)5616.43Naproxen (sodium) (1600 MTA)5616.44SIGMA -I with & ISB (DEXTROMETHORPHAN HBR INTERMEDITAES)684.95SIGMA (DEXTROMETHORPHAN HBR INTERMEDITAES)5.56ATIPA684.97IMPALA with BAH & 3-HAP479.58FMOU OSU1.49CPCCA(KEY)82.210VERAPAMIL HCL1.411VENLAFAXINE41.112SIMVASTATIN82.213BUPROPION HCL68.514SITAGLIPTIN PHOSPHATE & KETOAMIDE41115AMINO ALHOCOL1.416Carbidopa13717Levodopa5.520(2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic)2.721Lamotrigine191.822Capecitabine54.823Vigadatrine13.724Raltegravier109.625Deam41.126Cke54.827Cristat82.228Dial2.729Astaxanthin13.731Lycopene27.432Beta-Carotene13733Ascorbyl Palmitate27.434Z-L Valine191.835Losartan (Mecedes)274	S.N	Product Name	Qnty
per CFE 14.09.20151DI –naproxen (intermediate of NAP/SN) ~19602742Naproxen (450 MTA)5616.43Naproxen (sodium) (1600 MTA)6616.44SIGMA –I with & ISB (DEXTROMETHORPHAN HBR INTERMEDITAES)684.95SIGMA (DEXTROMETHORPHAN HBR INTERMEDITAES)5.56ATIPA684.97IMPALA with BAH & 3-HAP479.58FMOU OSU1.49CPCCA(KEY)82.210VERAPAMIL HCL1.411VENLAFAXINE41.112SIMVASTATIN82.213BUPROPION HCL685.514SITAGLIPTIN PHOSPHATE & KETOAMIDE41115AMINO ALHOCOL1.416Carbidopa13717Levodopa5.520(2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic)2.721Lamotrigine191.822Capecitabine54.823Vigadatrine13.724Raltegravier109.625Deam41.126Cke54.827Criistat82.228Dial2.729Astaxanthin13731Lycopene27.432Katopene27.433Ascorbyl Palmitate27.435Losartan (Mecedes)274	0		kg/day as
1.0014.09.20151D1 -naproxen (intermediate of NAP/SN) ~19602742Naproxen (sodium) (1600 MTA)5616.43Naproxen (sodium) (1600 MTA)684.9NTERMEDITAES)684.95SIGMA (DEXTROMETHORPHAN HBR INTERMEDITAES)5.56ATIPA684.97IMPALA with BAH & 3-HAP479.58FMOU OSU1.49CPCCA(KEY)82.210VERAPAMIL HCL1.411VENLAFAXINE41.112SIMVASTATIN82.213BUPROPION HCL68.514SITAGLIPTIN PHOSPHATE & KETOAMIDE41115AMINO ALHOCOL1.416Carbidopa13717Levodopa547.918Gabapentin4383.619Triprolidinchel5.520(2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic)2.721Lamotrigine191.822Capecitabine54.823Vigadatrine13.724Raltegravier109.625Deam41.126Cke54.827Crlistat82.228Dial2.729Astaxanthin13.731Lycopene27.432Beta- Carotene13733Ascorbyl Palmitate27.434Z-L Valine191.835Losartan (Meedes)274			per CFE
1DI -naproxen (intermediate of NAP/SN) ~19602742Naproxen (450 MTA) 5616.4 3Naproxen (sodium) (1600 MTA) 664.9 4SIGMA -I with & ISB (DEXTROMETHORPHAN HBR INTERMEDITAES) 684.9 5SIGMA (DEXTROMETHORPHAN HBR INTERMEDITAES) 65.5 6ATIPA 684.9 7IMPALA with BAH & 3-HAP 479.5 8FMOU OSU 1.4 9CPCCA(KEY) 82.2 10VERAPAMIL HCL 1.4 11VENLAFAXINE 41.1 12SIMVASTATIN 82.2 13BUPROPION HCL 68.5 14SITAGLIPTIN PHOSPHATE & KETOAMIDE 411 15AMINO ALHOCOL 1.4 16Carbidopa 547.9 18Gabapentin 4383.6 19Triprolidinchel 5.5 20(2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21Lamotrigine 9191.8 22Capecitabine 54.8 23Vigadatrinc 13.7 24Raltegravier 109.6 25Deam 41.1 26Cke 54.8 27Crlistat 82.2 28Dial 2.7 29Astaxanthin 13.7 31Lycopene 27.4 32Beta-Carotene 137 33Ascorbyl Palmitate 27.4 34Z-L Valine 191.8 35Losartan (Meedes) 274 <th></th> <th></th> <th>14.09.2015</th>			14.09.2015
2 Naproxen (450 MTA) 5616.4 3 Naproxen (sodium) (1600 MTA) 684.9 4 SIGMA - I with & ISB (DEXTROMETHORPHAN HBR INTERMEDITAES) 684.9 5 SIGMA (DEXTROMETHORPHAN HBR INTERMEDITAES) 5.5 6 ATIPA 684.9 7 IMPALA with BAH & 3-HAP 479.5 8 FMOU OSU 1.4 9 CPCCA(KEY) 82.2 10 VERAPAMIL HCL 1.4 11 VENAFAXINE 41.1 12 SIMVASTATIN 82.2 13 BUPROPION HCL 68.5 14 SITAGLIPTIN PHOSPHATE & KETOAMIDE 411 15 AMINO ALHOCOL 1.4 16 Carbidopa 137 17 Levodopa 5.5 20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 5.4.8 23 Vigadatrine 13.7 24 Raltegravier 109.	1	D1-naproxen (intermediate of NAP/SN) ~1960	274
3 Naproxen (sodium) (1600 MTA) 500.4 4 SIGMA –I with & ISB (DEXTROMETHORPHAN HBR INTERMEDITAES) 684.9 5 SIGMA (DEXTROMETHORPHAN HBR INTERMEDITAES) 5.5 6 ATIPA 684.9 7 IMPALA with BAH & 3-HAP 479.5 8 FMOU OSU 1.4 9 CPCCA(KEY) 82.2 10 VERAPAMIL HCL 1.4 11 VENLAFAXINE 41.1 12 SIMVASTATIN 82.2 13 BUPROPION HCL 685.5 14 SITAGLIPTIN PHOSPHATE & KETOAMIDE 411 15 AMINO ALHOCOL 1.4 16 Carbidopa 137 17 Levodopa 547.9 18 Gabapentin 43383.6 19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 </td <td>2</td> <td>Naproxen (450 MTA)</td> <td>5616.4</td>	2	Naproxen (450 MTA)	5616.4
4 SIGMA – I with & ISB (DEXTROMETHORPHAN HBR INTERMEDITAES) 684.9 5 SIGMA (DEXTROMETHORPHAN HBR INTERMEDITAES) 5.5 6 ATIPA 684.9 7 IMPALA with BAH & 3-HAP 479.5 8 FMOU OSU 1.4 9 CPCCA(KEY) 82.2 10 VERAPAMIL HCL 1.4 11 VENLAFAXINE 41.1 12 SIMVASTATIN 82.2 13 BUPROPION HCL 68.5 14 SITAGLIPTIN PHOSPHATE & KETOAMIDE 411 15 AMINO ALHOCOL 1.4 16 Carbidopa 137 17 Levodopa 547.9 18 Gabapentin 4383.6 19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6	3	Naproxen (sodium) (1600 MTA)	5010.4
5 SIGMA (DEXTROMETHORPHAN HBR INTERMEDITAES) 5.5 6 ATIPA 684.9 7 IMPALA with BAH & 3-HAP 479.5 8 FMOU OSU 1.4 9 CPCCA(KEY) 82.2 10 VERAPAMIL HCL 1.4 11 VERAPAMIL HCL 1.4 12 SIMVASTATIN 82.2 13 BUPROPION HCL 68.5 14 SITAGLIPTIN PHOSPHATE & KETOAMIDE 411 15 AMINO ALHOCOL 1.4 16 Carbidopa 137 17 Levodopa 547.9 18 Gabapentin 4383.6 19 Triprolidinehcl 5.5 20 (27)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke	4	SIGMA –I with & ISB (DEXTROMETHORPHAN HBR INTERMEDITAES)	684.9
INTERMEDITAES) 6 ATIPA 684.9 7 IMPALA with BAH & 3-HAP 479.5 8 FMOU OSU 1.4 9 CPCCA(KEY) 82.2 10 VERAPAMIL HCL 1.4 11 VENLAFAXINE 41.1 12 SIMVASTATIN 82.2 13 BUPROPION HCL 68.5 14 SITAGLIPTIN PHOSPHATE & KETOAMIDE 411 15 AMINO ALHOCOL 1.4 16 Carbidopa 137 17 Levodopa 547.9 18 Gabapentin 4383.6 19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27	5	SIGMA (DEXTROMETHORPHAN HBR	5.5
6 ATIPA 684.9 7 IMPALA with BAH & 3-HAP 479.5 8 FMOU OSU 1.4 9 CPCCA(KEY) 82.2 10 VERAPAMIL HCL 1.4 11 VENLAFAXINE 41.1 12 SIMVASTATIN 82.2 13 BUPROPION HCL 68.5 14 SITAGLIPTIN PHOSPHATE & KETOAMIDE 411 15 AMINO ALHOCOL 1.4 16 Carbidopa 137 17 Levodopa 547.9 18 Gabapentin 4383.6 19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-lh-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin <td></td> <td>INTERMEDITAES)</td> <td></td>		INTERMEDITAES)	
7 IMPALA with BAH & 3-HAP 479.5 8 FMOU OSU 1.4 9 CPCCA(KEY) 82.2 10 VERAPAMIL HCL 1.4 11 VENLAFAXINE 41.1 12 SIMVASTATIN 82.2 13 BUPROPION HCL 68.5 14 SITAGLIPTIN PHOSPHATE & KETOAMIDE 411 15 AMINO ALHOCOL 1.4 16 Carbidopa 137 17 Levodopa 547.9 18 Gabapentin 4383.6 19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-lh-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 13.7 30 Canthaxa	6	ATIPA	684.9
8 FMOU OSU 1.4 9 CPCCA(KEY) 82.2 10 VERAPAMIL HCL 1.4 11 VENLAFAXINE 41.1 12 SIMVASTATIN 82.2 13 BUPROPION HCL 68.5 14 SITAGLIPTIN PHOSPHATE & KETOAMIDE 411 15 AMINO ALHOCOL 1.4 16 Carbidopa 137 17 Levodopa 547.9 18 Gabapentin 4383.6 19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 <td< td=""><td>7</td><td>IMPALA with BAH & 3-HAP</td><td>479.5</td></td<>	7	IMPALA with BAH & 3-HAP	479.5
9 CPCCA(KEY) 82.2 10 VERAPAMIL HCL 1.4 11 VENLAFAXINE 41.1 12 SIMVASTATIN 82.2 13 BUPROPION HCL 68.5 14 SITAGLIPTIN PHOSPHATE & KETOAMIDE 411 15 AMINO ALHOCOL 1.4 16 Carbidopa 137 17 Levodopa 547.9 18 Gabapentin 4383.6 19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 13.7 30 Canthaxanthin 13.7 <tr td=""></tr>	8	FMOU OSU	1.4
10 VERAPAMIL HCL 1.4 11 VENLAFAXINE 41.1 12 SIMVASTATIN 82.2 13 BUPROPION HCL 68.5 14 SITAGLIPTIN PHOSPHATE & KETOAMIDE 411 15 AMINO ALHOCOL 1.4 16 Carbidopa 137 17 Levodopa 547.9 18 Gabapentin 4383.6 19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palm	9	CPCCA(KEY)	82.2
11 VENLAFAXINE 41.1 12 SIMVASTATIN 82.2 13 BUPROPION HCL 68.5 14 SITAGLIPTIN PHOSPHATE & KETOAMIDE 411 15 AMINO ALHOCOL 1.4 16 Carbidopa 137 17 Levodopa 547.9 18 Gabapentin 4383.6 19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Vali	10	VERAPAMIL HCL	1.4
12 SIMVASTATIN 82.2 13 BUPROPION HCL 68.5 14 SITAGLIPTIN PHOSPHATE & KETOAMIDE 411 15 AMINO ALHOCOL 1.4 16 Carbidopa 137 17 Levodopa 547.9 18 Gabapentin 4383.6 19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan	11	VENLAFAXINE	41.1
13 BUPROPION HCL 68.5 14 SITAGLIPTIN PHOSPHATE & KETOAMIDE 411 15 AMINO ALHOCOL 1.4 16 Carbidopa 137 17 Levodopa 547.9 18 Gabapentin 4383.6 19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 137 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8	12	SIMVASTATIN	82.2
14 SITAGLIPTIN PHOSPHATE & KETOAMIDE 411 15 AMINO ALHOCOL 1.4 16 Carbidopa 137 17 Levodopa 547.9 18 Gabapentin 4383.6 19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 137 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274 <td>13</td> <td>BUPROPION HCL</td> <td>68.5</td>	13	BUPROPION HCL	68.5
15 AMINO ALHOCOL 1.4 16 Carbidopa 137 17 Levodopa 547.9 18 Gabapentin 4383.6 19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274	14	SITAGLIPTIN PHOSPHATE & KETOAMIDE	411
16 Carbidopa 137 17 Levodopa 547.9 18 Gabapentin 4383.6 19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274	15	AMINO ALHOCOL	1.4
17 Levodopa 547.9 18 Gabapentin 4383.6 19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 13.7 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274	16	Carbidopa	137
18 Gabapentin 4383.6 19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274	17	Levodopa	547.9
19 Triprolidinehcl 5.5 20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8	18	Gabapentin	4383.6
20 (2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8	19	Triprolidinehcl	5.5
classic) 2.7 21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274	20	(2r)-amino (2,3-dihydro-1h-inden-2yl) ethanoic acid (2.7
21 Lamotrigine 191.8 22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 13.7 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274		classic)	2.7
22 Capecitabine 54.8 23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274	21	Lamotrigine	191.8
23 Vigadatrine 13.7 24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274	22	Capecitabine	54.8
24 Raltegravier 109.6 25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274	23	Vigadatrine	13.7
25 Dcam 41.1 26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274	24	Raltegravier	109.6
26 Cke 54.8 27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274	25	Dcam	41.1
27 Crlistat 82.2 28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274	26	Cke	54.8
28 Dial 2.7 29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274	27	Crlistat	82.2
29 Astaxanthin 137 30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274	28	Dial	2.7
30 Canthaxanthin 13.7 31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274	29	Astaxanthin	137
31 Lycopene 27.4 32 Beta- Carotene 137 33 Ascorbyl Palmitate 27.4 34 Z-L Valine 191.8 35 Losartan (Mecedes) 274	30	Canthaxanthin	13.7
32Beta- Carotene13733Ascorbyl Palmitate27.434Z-L Valine191.835Losartan (Mecedes)274	31	Lycopene	27.4
33Ascorbyl Palmitate27.434Z-L Valine191.835Losartan (Mecedes)274	32	Beta- Carotene	137
34 Z-L Valine 191.8 35 Losartan (Mecedes) 274	33	Ascorbyl Palmitate	27.4
35Losartan (Mecedes)274	34	Z-L Valine	191.8
	35	Losartan (Mecedes)	274

36	Atovaquine (Ivax-New)	68.5
37	Sumatriptan	8.2
38	Moc Valine	2.7
39	Intermidate Of Levetracitam	821.9
40	Boc –Core Succinate /Bcs (Davincy)	137
41	Ketoenamine (Rado)	274
42	2,4 Wing Active Ester (Zodic)	95.9
43	Dihydroxypyridone Carboxylic Acid Methyl Ester /Dhpm (Elentra)	41.1
44	Alendronic Acid (Optra)	27.4
45	Bosentan Monohydrate (Lilly)	13.7
46	Entacapone	13.7
47	Irbesartan	68.5
48	4-isopropyl-3- methyl phenol/ ipmp (dione)	2.7
49	Valsartan (chevorlet)	274
50	Olmisartan (epic)	5.5
51	2,3-dimethyl-6-amino-2-h-indazole /gw776994 (mimas)	41.1
52	4-chloro-6- methoxy-7(3-morpholin-4-yl propoxy) quinoline (eris)	2.71
53	(2r,3r)-3-(2,5-difluorophenyl)-3-hydroxy-2-methyl-4-(1h- 1,2,4-triazol-1-yl) butanethioamide (nano)	5.5
54	2-((1,5-bis (benzhydroxy)-4-oxo -1,4-dihydropyridin-2- yl)methoxy)isoindoline-1,3-dione (swallow)	5.5
55	3-(propan-2-yl)-5-(trichloromethyl)-1,2,4-oxadiazole	2.7
56	4-[(5-methylpyridin-2-yl)methoxy]aniline dihydrochloride	2.7
57	(1s)-2-Amino-1-{3-[3-(Benzyloxy)Propoxy]Phenyl}Ethanol Hydrochloride	2.7
58	Apocarotenol	5.5
59	Lutein	5.5
60	Levodopa Ethylester Succinate	2.7
61	Intermidate Of Preladenant	2.7
62	Phthalazinone	2.7
63	5-Bromo-[1,2,4] Triazol [1,5-A]Pyridine-2-Yl Amine (Gsk 283119a)	2.7
64	Enoxaparin Sodium	2.7
65	Ef-9 [3-O-Acetyl-1,6-Anyhdro-2-Azido-2-Deoxy-4-O-	
	(Methyl 2,3-Di-O-Glucopyranosyluronate) Beta-D-	2.7
66		27
67	Pregabalin	2.7
68	Chloropurine/Cis(1s,4r)-1-Amino-4-(Hydroxymethyl)-2- Cyclopentene.Hcl / Amino Alcohol	205.5
L	· · · ·	

69	Abacavir	2.7
70	Suvorexanthcl	12.7
	(including amine hcl&triazole acid)	15.7
71	Propan-2-yl(2r)-2-{[(r)-({(2r,3r,4r,5r)-4-chloro-5-[2,4-	
	dioxo-3,4-dihydropyrimidin-1(2h)-yl]-3-hydroxy-4-	13.7
	methyloxolan-	13.7
	2yl}methoxy)(phenoxy)phosphoryl]amino}propanoate	
72	Doulteravir	5.5
73	Pantaprozole	2.7
74	Esomerpozole	2.7
75	Allogliptin	2.7
76	Merabagran	2.7
77	Vildagliptin	2.7
78	Linaliptin	2.7
79	Ranolzine	5.5
80	Vilazodone Hcl	2.7
81	Piprequine	2.7
82	Sofosbuvir	2.7
83	Ubt	5.5
84	Tatd Salt	5.5
85	Mesalamine	68.5
86	Ethyl Ester	5.5
87	Ethyl Isocyanato Acetate	2.7
88	R & D Products	109.6

(IV) BS-VI Fuel Quality Up-gradation, Capacity Expansion of PX/PTA, NCU, MEG, HDPE, PP Units & New Catalyst Manufacturing Unit at Panipat Refinery BY M/s IOCL – reg TOR

The Member Secretary informed that the aforesaid project was recommended for EC in 13^{th} EAC meeting held during $26^{th} - 27^{th}$ September, 2016. The PP vide letter no. BS-VI/EC/PH/2016/3 dated 08.11.2016 made a request seeking following corrections in the Minutes of the 13^{th} EAC meeting:

Information as given in the MoM	Corrections sought
Subject of TOR:	BS-VI Fuel Quality Up-gradation and
BS-VI Fuel Quality Up-gradation, Capacity	Capacity Expansion of PX/PTA at Panipat
Expansion of PX/PTA, NCU, MEG,	Refinery BY M/s IOCL
HDPE, PP Units & New Catalyst	
Manufacturing Unit at Panipat Refinery BY	
M/s IOCL	

The committee after deliberation accepted the aforesaid corrections and directed to modify the minutes of 13^{th} EAC meeting accordingly.

(V). MS quality up-gradation & HSD quality up-gradation at Tehsil Barouni, district Begusarai, Bihar by M/s. IOCL Barauni refinery.- reg EC.

The Member Secretary informed that the aforesaid project was recommended for EC in 15th EAC meeting held during 10th November, 2016. The PP made a request seeking following corrections in the Minutes of the 15th EAC meeting:

Information as given in the MoM	Corrections sought
In S. No. (i) of the specific condition	M/s IOCL shall comply with
M/s HPCI shall comply with	standards/norms for Oil Refinery Industry
standards/norms for Oil Refinery	notified under the Environment (Protection)
Industry notified under the Environment	Pulse 1086 vide $C S P$ 186(E) deted 18 th
(Protection) Pulse 10% vide C.S.P.	March 2008
(Flotection) Kules, 1980 vide $0.5.K.$	March, 2008.
180(E) dated 18 March, 2008.	
	The total mater requirement from enterior
In S. No. (ix) of the specific condition	The total water requirement from artesian
I otal freshwater requirement from BMC	wells after expansion of proposed project
after expansion of proposed project shall	shall not exceed 651 m3/hr and prior
not exceed 538 m3/hr and prior	permission shall be obtained from the
permission shall be obtained from the	competent authority.
competent authority.	
In S. No. (v) of the specific condition	SO2 emissions after expansion from the
SO2 emissions after expansion from the	plant shall not exceed 815 kg/hr and further
plant shall not exceed 1035 kg/hr and	efforts shall be made for reduction of SO2
further efforts shall be made for	load through use of low sulphur fuel.
reduction of SO2 load through use of	Sulphur recovery units shall be installed for
low sulphur fuel. Sulphur recovery units	control of H2S emissions. The overall
shall be installed for control of H2S	sulphur recovery efficiency of Sulphur
emissions. The overall sulphur recovery	recovery unit with tail gas treating shall not
efficiency of Sulphur recovery unit with	be less than 99.9%.
tail gas treating shall not be less than	
99.9%.	
In S. No. (v) of the specific condition	As proposed, Industrial effluent generation

shall not exceed **497** m³/hr after proposed As Industrial effluent proposed, generation shall not exceed 178 m³/hr expansion and treated in the integrated after proposed expansion and treated in effluent treatment plant. The plant shall be the integrated effluent treatment plant. based on Zero Liquid Discharge and as The plant shall be based on Zero Liquid proposed RO to be installed within the plant. Discharge and as proposed RO to be Treated effluent shall be recycled/reused installed within the plant. Treated within the factory premises. Domestic effluent shall be recycled/reused within sewage shall be treated in sewage treatment the factory premises. Domestic sewage plant (STP). shall be treated in sewage treatment plant (STP).

The committee after deliberation accepted the aforesaid corrections and directed to modify the minutes of 15^{th} EAC meeting accordingly.

16.3. Consideration of proposal:

16.3.1. Proposed modernization project manufacturing of Pesticides, insecticides & fungicides at Plot No A-18, MIDC Mahad, District: Raigad, Maharashtra-Ms. Hikal Limited– [F.No. J- 11011/318/2016-IA.II(I); Online Proposal No. IA/MH/IND2/59119/2016 dated 04th October, 2016]- Terms of Reference

The Project Authorities made a presentation before the EAC (INDUSTRY-2) and informed that:

- (i) The proposal is modernization of existing project of manufacturing of Pesticides, insecticides & fungicides at Plot No A-18, MIDC Mahad, District: Raigad, Maharashtra. The project land is notified Industrial area by MIDC.
- (ii) proposed modernization project manufacturing of pesticides, insecticides & fungicides will have total capacity of 965 MT/M and by products having total capacity of 1300.78 MT/M.
- (iii) The existing project has been established in the year 1988 prior to EIA Notification, 1994. The unit is operating with the consent to operate from Maharashtra SPCB.
- (iv) The proposed modernization project will be on Plot no A-18, MIDC Mahad, Mahad with land admeasuring 27007 Sq. Meters.
- (v) The total green belt area will be 8912 sq.m. (Existing = 6817 sq. m., Proposed = 2095 sq. m).
- (vi) The total fresh water requirement is 581 CMD (Existing 327 CMD + Proposed 254 CMD). Total Fresh water requirement of the project for domestic and

industrial activity during operation Phase will be 581 CMD. The water requirement will be sourced from MIDC.

- (vii) The total effluent quantity will be 214 CMD. Effluent coming from proposed modernization project will be treated in upgraded ETP of capacity 290 CMD having primary, secondary and tertiary treatment. Treated water will be discharged to CETP Mahad. Domestic waste water will be treating in existing STP of capacity 50 m3 /day.
- (viii) PP informed that Liquid waste will be treated in upgraded Effluent Treatment Plant of 250 m³/day to MPCB acceptable levels and disposed to CETP Mahad. Sewage will be treated in STP of 50 m³/day capacity. Non hazardous Solid waste will be sold to recyclers.
- (ix) Hazardous wastes will be disposed to CHWTSDS. The Power requirement for the existing project is 1.5 MW and 2.0 MW will be required in addition for proposed modernization project. Hazardous solid waste generated from the process will be collected, stored, transported and sent to MWML, Taloja CHWTSDF for disposal. Non hazardous wastes will be sold to recyclers. Industry will dispose-off the By-product Calcium Sulphate (Gypsum) at CHWTSDF or sold to MPCB authorised party.
- (x) No reserve forest/protected area/eco-sensitive area are located within 10 km area of project site. River Bahca Nadi is at a distance of 6.73 km(NE) from the project sire.
- (xi) The total project is Rs.107.92 crore.
- (xii) Power will be supplied by MSEDCL. Industrial effluent will be fully treated to MPCB norms and then it will be discharged to CETP for further disposal 15 km inside sea.
- (xiii) The list of products manufactured with the present production capacity and proposed capacity are as below:

S1.	Droduct	Existing	Proposed	Total
No.	Floduct	(MT/M)	(MT/M)	(MT/M)
1	Ethyclozate	03.00	(-) 01.33	01.67
2	Amitrol	15.00	(-) 15.00	00.00
	5 Methoxy methyl			
3	Pyridine 2, 3	50.00	00.00	50.00
	Dicarboxyalic acid			
4	Diuron	310.00	190.00	500.00
5	Sodium Hypochloride	480.00	(-) 480.00	00.00
6	3,5 Dichloroaniline	80.00	70.00	150.00
	2 Amino 2 Methyl			
7	isopropyloxy 6 methyl	25.00	(-) 08.33	16.67
	propiophenone			
8	4 acetoxy 6 tert butyl 8	10.00	(-) 01.67	00.22
	floro 2 3 dimethyle			00.55

	quinoline			
9	Benefuresate	05.00	05.00	10.00
10	Benzophenaf	15.00	00.00	15.00
11	Clothianidin	00.00	15.00	15.00
12	Trifloxystrobin	00.00	25.00	25.00
13	Azoxystrobin	00.00	25.00	25.00
14	Thiacloprid	00.00	25.00	25.00
15	SMPGM	00.00	15.00	15.00
16	Fludioxanil	00.00	25.00	25.00
	Total	993.00	(-) 111.33	881.67
	Formulations	0	84	84
		993.00	(-) 27.33	965.67

List of By-products:

Sr.	Dry Drody at	Existing	Proposed	Total
No.	By-Product	(MT/M)	(MT/M)	(MT/M)
1	Calcium Sulphate	212.542	00	212.542
1	(Gypsum)			
2	Sodium Bromide solution	300	300	600.00
3	Spent Catalyst	0.988	00	0.988
4	Hydrochoric Acid (30 %)	50	00	50.00
5	Acetone	43.5	00	43.50
6	35% Spent Sulphuric Acid	119.75	00	119.75
7	10% H ₂ SO ₄ (3,5 DCA)	102	00	102.00
8	Potessium bromide	0	172	172.00
	Total	828.78	472.00	1300.78

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure (Refer Ministry's web site) for preparation of EIA-EMP report:

A. Specific TOR

- 1. Details on solvents to be used, measures for solvent recovery and for emissions control.
- 2. Details of process emissions from the proposed unit and its arrangement to control.
- 3. Ambient air quality data should include VOC, other process-specific pollutants* like NH3*, chlorine*, HCl*, HBr*, H2S*, HF*, *etc.*, (* as applicable)
- 4. Work zone monitoring arrangements for hazardous chemicals.

- 5. Detailed effluent treatment scheme including ssegregation of effluent streams for units adopting 'Zero' liquid discharge.
- 6. Action plan for odour control to be submitted.
- 7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
- 8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
- 9. Action plan for utilization of MEE/dryers salts.
- 10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
- 11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
- 12. Details of incinerator if to be installed.
- 13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
- 14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
- 15. Commitment that no banned pesticides will be manufactured.

B. Additional TOR

- 1. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- 2. Zero Liquid Discharge system to be adopted.
- 3. International standard for storage and handling shall be followed.
- 4. Source of water shall be clearly mentioned and approval from concerned authority shall be obtained prior to submission for EC. Possibility for reduction of fresh water use to be explored and proper justification for existing water requirement to be mentioned in the EIA/EMP report.
- 5. Epidemiological studies shall be conducted in nearby villages within 5 km of project site..
- 6. Compliance to consent to operate to be submitted.

It was recommended that 'TOR along with Public Hearing prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned 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. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

16.3.2. Proposed Expansion Of Existing Bulk Drug Intermediate Unit To Bulk Drug & Bulk Drug Intermediate Manufacturing Unit (Unit – VI) at Survey Nos: 750, 751, 751/3, 751/7, 752, 752/1, 752/2/3, 752/2/4,752/3/1,753/1,753/2 &753/4, Mandollagudem (V), Choutuppal (M), Nalgonda (Dt), Telangana State By

Symed Labs Limited- [No.J-11011/333/2016-IA-II(I); Online Proposal No. IA/TG/IND2/59241/2016 dated 24th September, 2016] -Terms of Reference

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

- M/s Symed Labs Limited, Telangana has proposed for Expansion of Existing Bulk Drug Intermediate Unit To Bulk Drug & Bulk Drug Intermediate Manufacturing Unit (Unit-VI) at Survey Nos: 750, 751, 751/3, 751/7, 752, 752/1, 752/2/3, 752/2/4,752/3/1,753/1,753/2 &753/4, Mandollagudem (V), Choutuppal (M), Nalgonda (Dt), Telangana State.
- (ii) All Synthetic organic chemicals industry projects (Bulk drugs and intermediates excluding drug formulations), located outside the notified industrial area/estate are listed at Sl.No. 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) The total area of the unit is 31.05 Acres. Project Cost for the proposed expansion project is 75.00 Crores. The project would be completed within two years. 50 persons during construction and 500 persons during operation will be employed in the project.
- (iv) Bairavani cheruvu- 5.6 km (SE), Ramasamudram Cheruvu-7.2 km (NE), Tangallapalli Cheruvu-9.2 km (SW), Musi River – 9.5 km (NNW) and Ityala Cheruvu - 9.9 km (SW) rivers/water bodies are located within 10 km area of the unit
- (v) Reserve forest like Choutuppal RF 1.6 km (SSW), Lakkaram RF 4.7 km (WSW), RF Near Choutuppal - 6.7 KMs (SW) and RF Near Chinna konduru-870m(NNE) are located within 10 km area of the unit.
- (vi) No protected area/eco-sensitive areas are located within 10 km of the Unit.
- (vii) The PP has also informed that an application has been submitted for withdrawal of TOR granted vide MoEFCC letter no. J-11011/290/2013 - IA II (I) dated 03rd November, 2014.
- (viii) The proposed products and quantities for expansion are as below:

S		CAS	Therapeutic	Production Capacity	
No	Product Name	Number	category /	Ka/Month	Capacity
		INUITIOCI	Application	Kg/Monul	Kg/Day
1	Amisulpride	71675-85-9	Neuroleptic agent	3000.00	100.00
	Carvedilol	72956-09-3	Cardiovascular	60000.00	2000.00
2			Agent	00000.00	2000.00
	Carvedilol	610309-89-2	Antihypertensive	7600.00	253 33
3	Phosphate	010307-07-2	agent	7000.00	233.33
	Carbidona	03357-67-6	Anti parkinsonian	6000 00	200.00
4	Caroluopa	75557-07-0	agent	0000.00	200.00

5	Cinitapride Hydrogen tartarate	66564-14-5	Gastroprokinetic Agent	6300.00	210.00
6	Dapoxetine Hydrochloride	129938-20-1	Antidepressant	3000.00	100.00
7	Epalrestat	82159-09-9	oral antidiabetic agent	9000.00	300.00
8	Eszopiclone	138729-47-2	Nonbarbiturate Hypnotic	150.00	5.00
9	Fluconazole	86386-73-4	Antifungal	18000.00	600.00
10	Iron sucrose	8047-67-4	Iron supplement	20000.00	666.67
11	Itopride Hydrochloride	122892-31-3	Antiulcer	12000.00	400.00
12	ketorolac tromethamine	74103-07-4	Antipyretic agent	24000.00	800.00
13	Levocetirizine DiHCl	130018-87-0	Antihistamine agent	1800.00	60.00
14	Levosulpride	23672-07-3	Antiemetic agent	39000.00	1300.00
15	Linezolid	165800-03-3	Antibiotic	70000.00	2333.33
16	Mosapride Citrate Dihydrate	63582-62-2	Gastroprokinetic	12000.00	400.00
17	Ondansetron Hydrochloride Dihydrate	103639-04-9	Antiemetic	3000.00	100.00
18	Pregabalin	148553-50-8	Neuropathic Pain Agent	20000.00	666.67
19	Racecadotril	81110-73-8	Anti diarrheal	8000.00	266.67
20	Tamsulosin HCl	106463-17-6	Anti-adrenergic	10300.00	343.33
21	Tizanidine HCl	64461-82-1	Skeletal muscle re laxant	300.00	10.00
22	Topiramate	97240-79-4	Anticonvulsant	3000.00	100.00
23	Zotepine	43200-80-2	Nonbarbiturate Hypnotic	6000.00	200.00
24	Zopiclone	26615-21-4	Neuroleptic agent	10300.00	343.33
25	Deferasirox	201530-41-8	Chelating Agent	7000.00	233.33
26	Tapentadol Hydrochloride	175591-09-0	Analgesic	20000.00	666.67
27	Thalidomide	50-35-1	Immuno modulator, angiogenesis inhibitor	8250.00	275.00

28	Tofisopam	22345-47-7	Anxiolytic agent	12000.00	400.00
	Total			400000.00	13333.33

The EAC considered the application of PP for withdrawal of TOR granted by the Ministry vide letter no. J-11011/290/2013 - IA II (I) dated 03rd November, 2014. After detailed deliberations the EAC accepted the request by the PP regarding withdrawal of TOR granted earlier and decided for grant of following specific TOR for preparation of EIA-EMP report:

- i. Details on solvents to be used, measures for solvent recovery and for emissions control.
- ii. Details of process emissions from the proposed unit and its arrangement to control.
- iii. Ambient air quality data should include VOC, other process-specific pollutants* like NH3*, chlorine*, HCl*, HBr*, H2S*, HF*, *etc.*, (* as applicable).
- iv. Work zone monitoring arrangements for hazardous chemicals.
- v. Detailed effluent treatment scheme including ssegregation of effluent streams for units adopting 'Zero' liquid discharge.
- vi. Action plan for odour control to be submitted.
- vii. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
- viii. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
- ix. Action plan for utilization of MEE/dryers salts.
- x. Material Safety Data Sheet for all the Chemicals are being used/will be used.
- xi. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
- xii. Details of incinerator if to be installed.
- xiii. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
- xiv. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
- xv. It was recommended that 'TOR along with Public Consultation prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned 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.
- xvi. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.
- 16.3.3. Proposed 60 KLPD sugarcane juice and molasses based distillery at Gat No: 3729/1 to 20, village Kameri, TalukaWalawa, Dist. Sangli, State Maharashtra by M/s Maruti Shethkari Asavani Ltd- [J 11011/327/2016 IA II (I); Online

Proposal No. IA/MH/IND2/59012/2016 dated 14th September, 2016]- Terms of Reference

The project proponent and their consultant M/s. SMS Envocare Ltd, Pune (accredited) gave a detailed presentation on the salient features of the project and informed that :

- M/s Maruti Shethkari Asavani Ltd has proposed for setting up of 60 KLPD sugarcane juice and molasses based distillery at Gat No: 3729/1 to 20, village Kameri, TalukaWalawa, Dist. Sangli, State Maharashtra.
- (ii) All molasses based distilleries are listed at Sl.No. 5(g) (i) of Schedule of EIA Notification under Category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).
- (iii) As informed and as per the documents submitted by the PP, The capital Cost of the Project is Rs. 85.325 Crore. 150 skilled and unskilled persons will be employed in the project.
- (iv) Total built up area for the unit is 129503 m² (Land is in Possession) in which greenbelt area is 69303 m² (53% of total plot area). River Warana is at 11 km and Krishna River is at 14.5 km of the project site respectively. No forest area/ecosensitive areas are located within 10 km area of the project site. The proposal is to install new 60 KLPD distillery to manufacture 60 KLPD ENA/ RS/ AA and 3.2 KLPD Impure Spirit from sugarcane juice and molasses as raw materials.
- (v) Fresh water requirement will be sourced from River Warna. For the plant operation, fresh water required will be 600 KLD after recycling.
- (vi) Total power required for proposed project during operation phase will be 1.8 MWh and would be generated through the in-house boiler and T.G. set. Coal will be used as a fuel in the 22 TPH boiler at the rate of 38 TPD.
- (vii)The PP informed that they have a Zero Liquid Discharge policy. Spent wash generated will be concentrated in Multi Effective Evaporator (MEE) and will be used as a fuel in spent wash fired incineration boiler.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's website) for preparation of EIA-EMP report:

A. Specific TOR:

- 1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
- 2. Number of working days of the distillery unit.
- 3. Details of raw materials such as molasses and their source with availability.
- 4. Details of the use of steam from the boiler.

- 5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
- 6. Commitment for spent wash generation within 6-8 KL/KL of alcohol produced.
- 7. Proposed effluent treatment system for molasses distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
- 8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
- 9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank and composting yard.
- 10. Action plan to control ground water pollution.
- 11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
- 12. Details of bio-composting yard.
- 13. Action plan to control odour pollution.
- 14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).

B. Additional TOR

- 1. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- 2. The fresh water requirement for Industrial use shall not exceed 8 Kl/Kl of alcohol.
- 3. Certificate from concerned authority regarding withdrawal of water for the industry and water availability in the river.
- 4. The unit shall be closed when water availability in Warna/Krishna river is less.
- 5. No ground water shall be used.
- 6. Briquette may be used as fuel in place of coal/spent wash. Imported coal may be preferred when briquette is not available.
- 7. It was recommended that 'TORs' along with Public Consultation prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned 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.
- 8. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.
- 16.3.4. Proposed Synthetic Organic, Drug Intermediates and Excipients Manufacturing Unit at Sy. No: 472,644,647,648(A), 649(A), 649(B), 650,651 & 652, Nandikandi (V), Sadasivapet(M), Sangareddy (Dt) (Old Medak District), Telangana State by M/s Balaji Greentec Products Ltd. [J 11011/326/2016 IA II (I); Online

Poposal No. IA/TG/IND2/58975/2016 dated 13th September, 2016] - Terms of Reference

The project proponent and their consultant Ms. Rightsource Industrial Solutions Pvt. Ltd (accredited) gave a detailed presentation on the salient features of the project and informed that:

- (i) M/s Balaji Greentec Products Ltd has proposed for setting up of Synthetic Organic, Drug Intermediates and Excipients Manufacturing Unit at Sy. No: 472,644,647,648(A), 649(B), 650,651 & 652, Nandikandi 649(A), (V), Sadasivapet(M), Sangareddy (Dt) (Old Medak District), Telangana State.
- (ii) All Synthetic organic chemicals industry projects (Bulk drugs and intermediates excluding drug formulations), located outside the notified industrial area/estate are listed at Sl.No. 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) As informed and as per the documents submitted by the PP, the total area of the unit is 13.375 Acres in the existing Industrial land area. No additional land is required for project.
- (iv) The solid & hazardous waste to be generated in plant will be disposed as per rules.
- (v) Industrial effluent (Liquid waste) of 352.64 KLD generated will be treated in ZLD System.
- (vi) Domestic waste water will be disposed to septic tank followed soak pit system. The total water requirement of 361.0 KLD for the project will be met from ground water. Electricity will be from TSPDCL.
- (vii) The total power requirement will be 2000 KVA. D. G. Sets of 750 KVA & 1500 KVA will be used. Coal Fired Boilers of 10 TPH & 5 TPH will be used. PP informed that permission for withdrawing surface water will be obtained from the concerned Government authority.
- (viii) Project Cost for the proposed project is 32.0 Crores.
 - (ix) Approximately 175 persons would be employed in the project.
 - (x) Savuta Vagu 0.69 Kms (N), Nandi vagu 0.85 Kms (E) ,Enkapalli Pedda Cheruvu – 4.75 Kms – (NW), Saudari Cheruvu – 5.04 Kms –(NNE) ,Malkapur Cheruvu – 7.6 Kms – (ESE) ,Manjeera Reservoir– 7.24 Kms – (NW) ,Tank NearTammudi bavi Tanda - 8.0 Kms– (SSE) and Raola Cheruvu – 9.03 Kms- (NW) rivers/water bodies are located within 10 km from the project site.
 - (xi) Manjeera Wildlife Sanctuary is located within 6.5 Km (NNE) from the project site.
 - (xii)The proposed products and quantities are as below:

S. No	Product Name	Production capacity			
	1 roduct Name	MT/Month	MT/Day		
Group-A					

S No	Product Namo	Production capacity		
5. NO		MT/Month	MT/Day	
1	Diethyl amine ethanol (DEAE)	300.00	10.00	
2	N,N,-Dimethyl acetamide (DMAC)	300.00	10.00	
3	Dimethyl amino ethanol (DMAE)	300.00	10.00	
4	Crospovidone	150.00	5.00	
5	Povidone Iodine	750.00	25.00	
6	Ethyl Cellulose	45.00	1.50	
7	Hydroxy ethyl cellulose	420.00	14.00	
8	Hydroxy Propyl cellulose	45.00	1.50	
9	Hypromellose	45.00	1.50	
10	Sodium Carboxy methyl cellulose	690.00	23.00	
11	N-Vinyl Pyrrolidine (NVP)	680.00	22.67	
12	PVP K-30	650.00	21.67	
13	Dimethyl amine Hydrochloride (DMA HCl)	1800.00	60.00	
	Total	6175.00	205.83	
Group-	В			
	PVP K-25	30.00	1.00	
	PVP K-12	30.00	1.00	
	PVP K-17	30.00	1.00	
	PVP K-90	30.00	1.00	
14	PVP K-75	30.00	1.00	
	PVP K-60	30.00	1.00	
	(In combination or any one product)	30.00	1.00	
Group-	C			
15	Propylene Glycol	900.00	30.00	
16	Propylene Carbonate	235.00	7.83	
17	Dimethyl carbonate	900.00	30.00	
	Total	2035.00	67.83	
	Grand Total (Group-A + Group-B + Group-	8240.00	274 67	
	C)	0210.00	2,	

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure (Refer Ministry's web site) for preparation of EIA-EMP report:

A. Specific TOR:

- 1. Details on solvents to be used, measures for solvent recovery and for emissions control.
- 2. Details of process emissions from the proposed unit and its arrangement to control.
- 3. Ambient air quality data should include VOC, etc.,
- 4. Work zone monitoring arrangements for hazardous chemicals.

- 5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
- 6. Action plan for odour control to be submitted.
- 7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
- 8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
- 9. Action plan for utilization of MEE/dryers salts.
- 10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
- 11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
- 12. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
- 13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
- 14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials

B. Additional TOR

- 1. Water balance shall be modified limiting water consumption during processing. The PP shall submit water table map, water depth and along with impact of use of ground water for industry in the locality.
- 2. Permission from the concerned authority shall be obtained for water extraction for industry.
- 3. The PP shall adhere to Zero Liquid Discharge policy.
- 4. It was recommended that 'TORs' along with Public Consultation prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned 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.
- 5. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

16.3.5. Expansion Project for Manufacturing of Organic Pigments (Copper Phthalo Cyanine Blue, Alpha Blue/ CPC Blue, Mono Chloro CPC) at plot no. 808/A-1/3, Phase-III, GIDC Estate, Vapi-396195, Dist.: Valsad, Gujarat M/s. A-One Phthalo Colors Pvt. Ltd- [F.No. J - 11011/332/2016 - IA II (I); Online Proposal No. A/GJ/IND2/58335/2016 dated 07th September, 2016- Terms of Reference

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

- M/s. A-One Phthalo Colors Pvt. Ltd has proposed for Expansion Project for Manufacturing of Organic Pigments (Copper Phthalo Cyanine Blue, Alpha Blue/ CPC Blue, Mono Chloro CPC) at plot no. 808/A-1/3, Phase-III, GIDC Estate, Vapi-396195, Dist. Valsad, Gujarat. The expansion will be carried out at existing plot located in GIDC.
- (ii) All Synthetic organic chemicals industry projects (Bulk drugs and intermediates excluding drug formulations), located outside the notified industrial area/estate are listed at Sl. No. 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) The total project cost is Rs. 27.09 crore. The expected cost of proposed expansion is Rs 109 Lacs (Only for new ETP Plant and machinery- Ammonium Sulphate Recovery Plant).
- (iv) The total plot area of the unit is 14,664 sq.m.
- (v) PP informed that, as per consent, the unit is using 2392.78 SCM/Hr of natural gas as fuel for Boilers, Thermo Pack and Hot Water Generator and 190 L/hr of diesel as a fuel for three D.G. sets. The unit has electricity from Daxin Gujarat Vij Company Ltd. The existing electricity consumption is 15400 Unit/Day. Due to proposed expansion, 245 SCM/Hr of Natural gas will be required. And optional 1460 of furnace oil will be required and 3650 Kgs/Hr of coal will be required and 9400 unit of electricity required.
- (vi) The source of water is GIDC. As per consent, the unit is using 756 KLD freshwater for industrial and domestic purpose. For proposed expansion, the unit has not required any additional water consumption. Total water consumption will be same after proposed expansion.
- (vii) PP informed that due to proposed expansion, total industrial effluent generation will be 549 KLD. Due to proposed expansion, sewage generation will be 12 KLD. The existing ETP is adequate to treat 561 KLD of effluent. There will be no any additional waste water generation due to proposed expansion. Effluent will be treated in ETP having primary, secondary and tertiary treatment. Treated water is sent to CETP.
- (viii) Existing green belt area is approx. 5249 sq. m. after expansion the green belt area will be remaining same.
- (ix) It is informed that forest is located within 7 km distance of the unit.
- (x) Arabian sea is located at a distance of 12 km and Daman Ganga river is approx. 5 Km away from project site.
- (xi) The following product will be manufactures by the company:

No.	Name of Products	ProductsQuantity as perconsentno.AWH-	Quantity as per proposed Expansion in MT/Month	Quantity after proposed Expansion in
		54923 in MT /		MT / Month
		Month		
1	Copper Phthalo Cyanine Blue	300	200	500

2	Alpha Blue/ CPC Blue	80	00	80	
3	Mono Chloro CPC	05	00	05	
	Total	385	200	585	
By product					
4	Ammonium Sulphate	00	120	120	

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure (Refer Ministry's web site) for preparation of EIA-EMP report:

A. Specific TOR:

- 1. Details on solvents to be used, measures for solvent recovery and for emissions control.
- 2. Details of process emissions from the proposed unit and its arrangement to control.
- 3. Ambient air quality data should include VOC, etc.,
- 4. Work zone monitoring arrangements for hazardous chemicals.
- 5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
- 6. Action plan for odour control to be submitted.
- 7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
- 8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
- 9. Action plan for utilization of MEE/dryers salts.
- 10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
- 11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
- 12. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
- 13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
- 14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials

B. Additional TOR

- 1. Health study of the workers shall be conducted with previous 5 year data and shall be submitted through Government Doctor/Registered Doctor having registration in the concerned field.
- 2. Product quality shall meet with National/International Ink/Dye standards.
- 3. PP shall go for incineration in place of CETP.

- 4. ZLD shall be followed as the project is located in Vapi, which is a Critically Polluted Area.
- 5. It was recommended that 'TORs' along with Public Consultation should be considered for preparation of EIA / EMP report for the above mentioned 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. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.
- 16.3.6. Expansion of Agrochemical & Intermediates Manufacturing Plant at Plot no: K2 to K11 & D2 to D4, Phase-1, UPSIDC Industrial area, Village- Mahfona, Tehsil-Sandila, District- Hardoi, Uttar Pradesh by M/s. India Pesticides Ltd [F.No. J-11011/331/2016 IA II (I); Online proposal no. IA/UP/IND2/58820/2016] Terms of Reference-

The project proponent and their consultant M/s EQMS India Pvt Ltd. gave a detailed presentation on the salient features of the project and informed that:

- M/s. India Pesticides Ltd. has proposed for Expansion of Agrochemical & Intermediates Manufacturing Plant at Plot no: K2 to K11 & D2 to D4, Phase-1, UPSIDC Industrial area, Village- Mahfona, Tehsil-Sandila, District- Hardoi, Uttar Pradesh. PP has obtained EC for the existing unit, vide MoEF letter No. J-11011/586/2010-IA.II(I) dated 22nd March, 2013.
- All Pesticides industry and pesticide specific intermediates (excluding formulations) Units 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. The project site is located in notified industrial area developed by UPSIDC. The existing plot area is 6 Acres.
- iv. The total land area after expansion is 18.4 acres, while the proposed green belt is 8330 m^2 (more than 33% of open area).
- v. The total cost of the project is Rs. 25 crore. Additional manpower requirement will be 200 persons.
- vi. PP has informed that, the water required for expansion is 874 KLD. The exiting water requirement is 135 KLD. Total water requirement after expansion will be 1009 KLD. Water requirement will be made available through Bore well.
- vii. Wastewater will be segregated into two streams as High TDS / High COD (HTDS) and Low TDS / Low COD (LTDS). The HTDS Effluent stream after neutralization, filtration will be sent to Stripper for recovery of solvent or organic distillates collected in drums and sent to TSDF for incineration. Remaining water effluents is sent to Effluent Spray Dryer/ MEE & Rotary Dryer where water is vaporized and dried Inorganic salts/ residues will be sent to approved TSDF for final disposal. The ETP treated effluent low TDS or Low COD will be sent to Stripper and passed through RO

for recovery of water for recycling. Reject from RO will be sent to Effluent spray dryer. No process effluent will be discharged outside the plant premises.

- viii. Total power requirement after expansion of 3000 KVA during operation phase will be sourced from Uttar Pradesh Power Corporation Ltd. Additionally three D.G. Sets of capacity 2X750 KVA (working)+ 1X750 KVA (stand by) will be installed for powerbackup.
 - ix. The greenbelt developed to the extent of 33% of the plot area.
 - x. CSR activities will be done as per guideline, a separate environmental budget of 3 crore will be allocated to meet the compliance of EMP proposed.
 - xi. No National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. Details of the proposed products with production capacity are as below:

Product Proposed to be Expanded						
S.No	Tag No	Product	Existing	Additional		
			capacity	Capacity(T/Month)		
	Fungicid	es				
1	F-16	Mancozeb (In Phase - I)	100	1200		
		Mancozeb (In Phase - II)		1200		
2	F-6	Captan (In Phase - I)	100	200		
Produ	ets Propose	ed to be Added#				
S.No	Tag No	Product		Additional		
				Capacity(T/Month)		
Fungio	cides					
1	F-18	Carboxin		100		
2	F-19	Diafenthiuron		10		
3	F-20	Propineb		50		
4	F-21	Paclobutrazole		10		
5	F-22	Zineb		50		
6	F-23	Etridiazole		25		
7	F-24	Tricyclazole		25		
8	F-25	Chlorothalonil		100		
9	F-26	Trichlopyr		20		
10	F-27	Difenoconazole		25		
11	F-28	Ipconazole		50		
12	F-29	Dodine		30		
Herbic	cides			·		
13	H-12	Imazethapyr		10		
14	H-13	Metribuzin		25		
15	H-14	Bispyribac Sodium		30		
16	H-15	Metolachlor		30		

17	H-16	Diuron	30
Insect	icides		
18	I-19	Acequinocyl Tech	25
19	I-20	Pyriproxyfen	10
20	I-21	Novaluran	25
21	I-22	Propargite	100
Intern	nediates		
22	IN-3	PTBSA(N-Phenyl-N-(Trichloromethyl)-	30
		Thio-benzensulfonamide	
23	IN-4	Caprolactam Disulfide	15
24	IN-5	Propargile Alcohol	100
25	IN-6	Trichloro Methoxy Nitrobenzene	15
Form	ulations		
26	FL-1	Solid Formulation - WDG, WP	500
27	FL-2	Liquid Formulation -EC,SL	1000
Bypro	ducts		
28	BP-1	Sodium Sulphate	360
29	BP-2	Ammonium Sulphate	60

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure (Refer Ministry's web site) for preparation of EIA-EMP report:

A. Specific TOR

- 1. Details on solvents to be used, measures for solvent recovery and for emissions control.
- 2. Details of process emissions from the proposed unit and its arrangement to control.
- 3. Ambient air quality data should include VOC, other process-specific pollutants* like NH3*, chlorine*, HCl*, HBr*, H2S*, HF*, *etc.*, (* as applicable)
- 4. Work zone monitoring arrangements for hazardous chemicals.
- 5. Detailed effluent treatment scheme including ssegregation of effluent streams for units adopting 'Zero' liquid discharge.
- 6. Action plan for odour control to be submitted.
- 7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
- 8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
- 9. Action plan for utilization of MEE/dryers salts.
- 10. Material Safety Data Sheet for all the Chemicals are being used/will be used.

- 11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
- 12. Details of incinerator if to be installed.
- 13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
- 14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
- 15. Commitment that no banned pesticides will be manufactured.

B. Additional TOR

- 1. EAC noted that, though the Industry is located in the Industrial area, being a pesticide industry, the company shall conduct public hearing. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- 2. It was recommended that 'TOR along with Public Hearing prescribed by the Expert Appraisal Committee (Industry-2) should be considered for preparation of EIA / EMP report for the above mentioned 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.
- 3. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.
- 4. Zero Liquid Discharge system to be adopted.
- 5. Certified compliance to the existing EC to be submitted.
- 6. Copy of UPSIDC land allotment letter in the name of the company.

16.3.7. LPG pipeline from IOCL Import Terminal to Kochi Refinery by M/s Kochi Salem Pipeline Private Limited- [F.No. J-11011/28/2016-IA II (I)]- Terms of Reference

The project proponent or representatives has not attended the EAC meeting.

16.3.8. Construction of Additional crude storage tanks at Shore Tank Farm of BPCL-Kochi by M/s Bharat Petroleum Corporation Limited- [F.No. J-11011/118/2015-IA II (I)]- Terms of Reference

The project proponent or representatives has not attended the EAC meeting.

16.3.9. Proposed 80 KLPD Molasses based distillery unit of M/s. Pingale Sugar & Agro Products Private Ltd. Village Selu, PO Jategaon, Taluka Gevarai, District Beed, Maharashtra- by Ms. Pingale Sugar And Agro Products Pvt Ltd- [F.No. J-11011/03/2016-IA II (I)] -Terms of Reference

It was noted that the proposal has been granted TOR in the EAC (Industry -2) 7^{th} meeting held on 28^{th} - 29^{th} April, 2016.

16.3.10. Expansion of molasses based distillery unit from 30KLPD to 45 KLPD at Gautamnagar P.O. Kolpewadi, Tehsil Kopargaon, District Ahmednagar, Maharashtra by M/s The Kopargaon Sahakari Sakhar Karkhana Ltd. (Distillery division)- reg. [J-11011/690/2008-IA-II (I)]-Extension & Amendment of EC

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

It was informed by the PP that the Environmental Clearance was obtained for expansion of molasses based distillery unit from 30 KLPD to 45 KLPD at Gautamnagar P.O. Kolpewadi, Tehsil Kopargaon District Ahmednagar Maharashtra vide Ministry's letter No. J-11011/690/2008- IA II (I) dated 30th January, 2009. Subsequently, the PP applied for change in spent wash treatment technology which was given by Rochem Separation Pvt. Ltd. on BOOT principles based on anaerobic digestion followed by concentration and gasification to convert spent wash into energy and bio-char. The amendment to this technology was granted vide corrigendum no. F.No. J-11011/690/2009-IA.II (I) dated 12th January, 2011. The PP expanded distillery capacity from 30 to 45 KLPD but the gasification Technology could not be implemented by Rochem Separation Pvt. Ltd even though the time given for implementation was two years and till today no progress could be achieved except the concentration of digested effluent by RO. Due to this reason the PP was unable to commission distillery capacity. In spite their best efforts and support for the technology, Rochem Separation Pvt. Ltd could not achieve the gasification technology breakthrough. They have now decided to adopt "Concentration and Incineration boiler technology instead of gasification technology.

The EAC examined the facts presented by the PP and observed that PP has submitted request for extension of EC vide letter dated 4th November, 2015 i.e., after expiry date as per EIA Notification, 2006. The EAC also noted that Ministry vide notification dated 29.04.2015 extended the validity period of such project up to seven years from 5 years as was earlier. But vide O.M. No. 22-27/2015-IA.III dated 12th April, 2016 the Ministry has interalia clarified that "the environment clearance of the project which has completed five (5) years on the date of publication of notification i.e., 29.04.2015 and application seeking extension of validity has not been submitted within the validity period by the project proponent, their extension of validity will be decided on case to case basis."

Considering the fact that the proposed advancement in technology will benefit the environment, the EAC recommended for amendment in EC and extended the validity of environmental clearance up to 29th January, 2019.

16.3.11. Exploratory Drilling of Twenty Nine (29) Wells in additional Ten (10) ML Blocks of Western Onshore Basin District Mehsana-Patan, Gujarat by M/s ONGC- [F.No.- J-11011/93/2015-IA-II(I)]- Terms of Reference

The project proponent or representatives has not attended the EAC meeting. Therefore the EAC decided to defer the proposal.

16.3.12. Debottlenecking and expansion of existing Petrochemical complex Hazira, Dist. - Surat, Gujarat by M/s Reliance Industries Limited - [F. No. J-11011/40/2015-IA II (I); Online proposal No. IA/GJ/IND/24200/2014 dated 04th November, 2016] -Environmental Clearance

The project proponent and their consultant M/s ERM India Private Limited, Gurgaon (accredited) gave a detailed presentation on the salient features of the project and informed that:

- i. Draft Terms of References (TORs) awarded in the 36th Reconstituted Expert Appraisal Committee (Industry) held during 16th-17th March, 2015 for preparation of EIA-EMP report.
- All Petrochemical products and petrochemical based processing, located in the notified Industrial area/estate are listed at S.N. 5(e) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'B'. All Petrochemical complexes are listed at S.N. 5(c) of Schedule of EIA Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).
- M/s Reliance Industry Ltd. has proposed for Debottlenecking and expansion of existing Petrochemical complex Hazira at GIDC Mora Plot, Village Mora, Tehsil Chorasi, Dist. Surat, Gujarat. PP has obtained environmental clearance from MoEF vide letter no. J-11011/32/2005 IA (II) I dated 30th June, 2005 for the existing petrochemical complex.
- iv. RIL HMD is now planning to expand/debottenecking some of the plants i.e. Cracker Plant, Ethylene (C2), Propylene (C3), C4 products (such as LPG, Butadiene, Butene 1, MTBE/Isobutylene, Butanediol, HIPB etc.), C5 derivatives and resins (C5 HCR resin, 72% DCPD, 85% DCPD, etc.), C6-C8, C9 and C9 resins, Styrene, PBR, Polyester Plants (Polyester Staple Fibre + chips, Partially Oriented Yarn, PET), PP, PE, PVC etc. Once debottlenecked the complex will have increased production of certain products.
- v. This activity will be through technological upgradation processes such as: a. Optimization and debottlenecking of limiting equipment b. Feed composition optimization. c. Increase in operational time. d. Change of hardware equipment. e. Replacement of existing reactors /equipment and addition of parallel reactors / equipment etc. f. Value addition of product slate by new processes / plants.
- vi. The total plot area is 398.32 ha. of which greenbelt will be developed in the area of 70 ha area. Cost of the project is Rs. 2100 Crore.

vii. As reported there is no wildlife/ eco sensitive/ reserve forest located within 10 km radius from the project site. Tapi Estuary and Gulf of Khambhat are located within 15 km distance.

S.N	Plant	Products	Existing (MTA)	Proposed (MTA)	Total (MTA)
1.	Cracker	Ethylene (C2)	9,00,000	1,00,000	10,00,000
		Propylene (C3)	4,38,000	62,000	5,00,000
		C4 products			
		LPG	2,45,960	0	2,45,960
		НТРВ	40	0	40
		Butadiene	1,40,000	70,000	2,10,000
		Butene 1	35,000	45,000	80,000
		MTBE / Isobutylene	85,000	1,15,000	2,00,000
		Butanediol*	0	43,000	43,000
		<u>C5 Derivatives and</u> resins	1,15,000		1,15,000
		C5 HCR Resin	0	28,375	28,375
		72% DCPD	0	13,500	13,500
		85% DCPD	0	35,500	35,500
		Heavy Oil	0	23,500	23,500
		HP DCPD Resin	0	24,875	24,875
		Hydrogenated HP DCPD Resin	0	25,500	25,500
		Isoprene	0	26,125	26,125
		Piperylenes		33,375	33,375
		Internal recycle to Furnace	0	1,00,000	1,00,000
		C6-C8			

3,84,000

Cyclohexane

viii. Following are the list of existing and proposed products will be manufactured:-

80,000

0

S.N	Plant	Products	Existing (MTA)	Proposed (MTA)	Total (MTA)
		C6-C8 Raffinate/Internal recycle to furnace			3,04,000
		Benzene	2,82,000	3,000	2,85,000
		Toluene	2,36,400	0	2,36,400
		Mixed xylene	1,98,000	0	1,98,000
		Para Di Ethyl Benzene	700	9,300	10,000
		C9 & C9 Resins	30,528	69,472	1,00,000
		Fuel Oil (CBFS)	93,600	36,400	1,30,000
		Styrene*	0	30,000	30,000
		SBR	1,50,000	50,000	2,00,000
		SBR (wet)	480	0	480
		SBR (Hi Boiler By- product)	2,820	930	3,750
		Acetylene Recovery*	0	14,000	14,000
		PBR	40,000	20,000	60,000
		Hi Boiler	420	210	630
		PBR (wet)	120	60	180
2.	Poly Vinyl Chloride (PVC)	Poly Vinyl Chloride (PVC)	3,50,000	1,25,000	4,75,000
	(1 00)	Vinyl Chloride Monomer (VCM) ^{\$}	3,50,000	1,25,000	4,75,000
		НСІ	50,100	17,892	67,992
		By product Solvent	7,000	4,400	11,400
		Wet resin	8,965	3,202	12,166
3.	Mono Fthylene	Mono Ethylene Glycol	6,00,000	1,20,000	7,20,000
	Glycol (MEG)	Ethylene Oxide	54,560	65,440	1,20,000
		HGR	56,500	21,500	78,000
		CO ₂	60,000	12,000	72,000
4.	Purified Terephthalic Acid (PTA)	Purified Terephthalic Acid**	21,00,000	12,00,000	33,00,000
		Methyl Acetate	16,460	13,702	30,162

S.N	Plant	Products	Existing (MTA)	Proposed (MTA)	Total (MTA)		
		PTA (Semi Solid Lumps)	5,100	4,228	9,328		
		Crude Benzoic Acid Mix	28,800	24,000	52,800		
		PTA Sweeping	620	502	1,122		
5.	Polyester	Polyester Staple Fibre + Chips	4,20,000	1,20,000	5,40,000		
		Fibre Fill	1,00,000	0	1,00,000		
		Partially Oriented Yarn + Chips	4,20,000	70,000	4,90,000		
		Poly Ethylene Terephthalate	5,20,000	0	5,20,000		
		Recovered EG	4,310	0	4,310		
		Glycol Residues	4,310	0	4,310		
		PET Chips	360	1140	1,500		
		RELCAT	0	20	20		
6.	Polyethylene	Polyethylene	5,00,000	50,000	5,50,000		
7.	Polypropylene	Poly Propylene	5,00,000	0	5,00,000		
		PP Catalyst	300	0	300		
		Metal Salt catalyst	0	160	160		
		Plant sweep/Poly waste/Machine waste	54,000	0	54,000		
		TiO ₂ Dry	1,080	0	1,080		
		TiO ₂ Wet	2,520	0	2,520		
8.	REL Pipe	HDPE pipes	1,21,000	0	1,21,000		
9.	CPP	Power	380 MW gas based	0	380 MW gas based		
10.	Shipping and Tank Farm	Marine Infrastructure facility	3 Jetties, 1 SBM and pipelines	-	3 Jetties, 1 SBM and pipelines		
	Plants that we However, t	ere given Environmental Cl hey are proposed to be se	earance (EC) in 20 t up.	05, these plants are no	ot yet established.		
	^{\$} VCM is an intermediate product used for manufacturing of PVC. It is proposed to sell it as product.						
	** In 2011, PTA was granted an EC for setting up additional capacity of 1.5 million TPA, thereby increasing the total capacity to 3.3 million TPA. However, it is now proposed to increase the total capacity to 3.3 million TPA.						

- ix. Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 11 locations during summer 2013, post monsoon 2013 and winter 2013-2014 and submitted baseline data which indicates that ranges of concentrations of PM_{10} (23 99 µg/m³), $PM_{2.5}$ (10-72 µg/m³), SO_2 (3-43 µg/m³) and NOx (3-28.1 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.94µg/m³, 7 µg/m³ and 4.5 µg/m³ with respect to PM _sSo₂ and CO . The resultant concentrations are within the NAAQS.
- x. Power requirement will be met from the existing gas based power plant of 380 MW capacity.
- xi. The major stack emission sources in the existing petrochemicals complex are from Heat Recovery Steam Generators (HRSG) in the captive power plant, vaporisers in polyester complex, fresh feed furnaces in cracker plants and Combination of fuel i.e. natural gas, HSD, C9, naphtha, Retrol Cracker gas, biogas, LSHS etc. are used in the existing petrochemicals complex.
- xii. Fresh water requirement from surface water i.e. Singanpore weir will be 15000 m3 /day after expansion.
- xiii. Waste process gaseous streams are vented after complete burning through flare stacks. In the proposed debottlenecking and expansion project, PM, NOx and SO2 will be major air pollutants from fuel burning units as combination of fuel will be used. Fuels proposed to be used will include natural gas, HSD, C9, naphtha, Retrol Cracker gas, biogas, LSHS etc.
- xiv. Reliance industry has taken permission for withdrawal of 35 MGD water. Effluent generation will be increased from 56604 m3 /day to 61287 m3 /day after expansion. Effluent will be segregated into high TDS and low TDS effluent streams. Low TDS effluent will be treated in the ETP comprising primary, secondary and tertiary treatment facility. Treated effluent will be reused for cooling tower make up. High TDS effluent stream will be segregated on the basis of oil content stream and non oil content stream. Effluent will be treated in the ETP comprising primary and secondary treatment facility. Treated effluent will be discharged into sea. Coke (VCM plant) and coke (cracker plant) will be sent to TSDF/ incineration/co-processing with cement plant. Spent catalyst will be sent to the authorized re-processors.
- xv. Public hearing is exempted as per section 7(i), (iii) Stage (3), Para (i) (b) of EIA Notification for preparation of EIA/EMP Report as unit is located in notified Industrial area established prior to 2006,
- xvi. The present proposal does not attracts the provisions of CRZ Notification, 2011.

M/s Reliance Industry Ltd. produced the copy of the order No. NAO/HAZIRA/ SRT/10 dated 15.04.2010 regarding the location of the Industry in the Hajira Notified Industrial Area. The EAC examined the validity of the AAQ data and analysis which was done during summer 2013, post monsoon 2013 and winter 2013-2014. After due diligence committee has accepted the AAQ data. EAC has suggested for ZLD, however, PP informed that there are practical difficulties in attaining ZLD in petrochemical industries.

After detailed deliberations the EAC recommended the proposal for grant of Environmental Clearance subject to compliance of following specific conditions.

- i. M/s Reliance Industry Ltd. shall comply with new standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R. 186(E) dated 18th March, 2008.
- ii. Continuous on-line stack monitoring for SO₂, NOx and CO of all the stacks shall be carried out. Low NOx burners shall be installed.
- iii. ESP alongwithin stack of adequate height shall be provided to pet coke/coal fired boiler. Limestone will be injected to pet coke/coal fired boiler to control SO2 emission.
- iv. The process emissions [SO₂, NOx, HC (Methane & Non-methane)], VOCs and Benzene from various units shall conform to the standards prescribed under the Environment (Protection) Act. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency of the pollution control device has been achieved.
- v. Leak Detection and Repair programme shall be prepared and implemented to control HC/VOC emissions. Focus shall be given to prevent fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to. Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations.
- vi. SO₂ emissions after expansion from the plant shall not exceed the standard limts of CPCB. The overall sulphur recovery efficiency of Sulphur recovery unit with tail gas treating shall not be less than 99.9%.
- vii. As proposed, record of sulphur balance shall be maintained at the Refinery as part of the environmental data on regular basis. The basic component of sulphur balance include sulphur input through feed (sulphur content in crude oil), sulphur output from Refinery through products, byproduct (elemental sulphur), atmospheric emissions etc.
- viii. Flare gas recovery system shall be installed.
 - ix. Ambient air quality monitoring stations, [PM₁₀, PM_{2.5}, SO₂, NOx, H₂S, mercaptan, non-methane-HC and Benzene] shall be set up in the complex in consultation with State Pollution Control Board, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs. Trend analysis w.r.t past monitoring results shall also be carried out. Adequate measures based on the trend analysis shall be taken to improve the ambient air quality in the project area.
 - x. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Besides, acoustic enclosure /silencer shall be installed

wherever noise levels exceed the limit. Acoustic enclosure /silencer should be installed wherever it is possible.

- xi. National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended time to time shall be complied by the unit.
- xii. Total water requirement Singanpore weir will be after expansion shall not exceed 15000 m3 /day and prior permission shall be obtained from the competent authority.
- xiii. Effluent shall be segregated into high TDS and low TDS effluent streams. Low TDS effluent will be treated in the ETP comprising primary, secondary and tertiary treatment facility. Treated effluent will be reused for cooling tower make up. High TDS effluent stream will be segregated on the basis of oil content stream and non oil content stream. Effluent will be treated in the ETP comprising primary and secondary treatment facility. Treated effluent will be discharged into sea. Coke (VCM plant) and coke (cracker plant) will be sent to TSDF/ incineration/co-processing with cement plant plant. Spent catalyst will be sent to the authorized reprocessors.
- xiv. All the effluents after treatment shall be routed to a properly lined guard pond for equalization and final control. In the guard pond, automatic monitoring system for flow rate, pH and TOC shall be provided. Data shall be uploaded on company's website and provide to respective Regional Office of MEF&CC and SPCB.
- xv. Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.
- xvi. Oily sludge shall be disposed off into Coker and balance oily sludge will be treated in the bioremediation facility. Annual Oily sludge generation and disposal data shall be submitted to the Ministry's Regional Office and CPCB.
- xvii. The Company should strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000. Hazardous waste should be disposed of as per Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and amended time to time.
- xviii. The membership of common TSDF should be obtained for the disposal of hazardous waste. Copy of authorization or membership of TSDF should be submitted to Ministry's Regional Office at Chandigarh. Chemical/inorganic sludge shall be sent to treatment storage disposal facility (TSDF) for hazardous waste. Spent catalyst shall be sent to authorized recyclers/re-processors.
 - xix. Proper oil spillage prevention management plan shall be prepared to avoid spillage/leakage of oil/petroleum products and ensure regular monitoring.
 - xx. The company shall strictly follow all the recommendation mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).

- xxi. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xxii. As proposed, green belt over 33 % of the total project area shall be developed around the plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xxiii. Company shall prepare project specific environmental manual and a copy shall be made available at the project site for the compliance.
- xxiv. All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented. The company should make the arrangement for protection of possible fire and explosion hazards during manufacturing process in material handling.
- xxv. All the commitment made regarding issues raised during the public hearing/ consultation meeting held on 14th October, 2014 shall be satisfactorily implemented. Accordingly, provision of budget to be kept.
- xxvi. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility 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 Chandigarh. Implementation of such program shall be ensured accordingly in a time bound manner.
- xxvii. A regular environment manager having post graduate qualification in environmental sciences/ environmental engineering to be appointed for looking after the environmental management activities of the proposed plant.
- xxviii. Company shall adopt Corporate Environment Policy as per the Ministry's O.M. No. J-11013/41/2006-IA.II(I) dated 26th April, 2011 and implemented
- xxix. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- 16.3.13. Expansion of sugar plant from 7000 to 12000 TCD and 100KLPD Molasses based distillery plant along with 3MW co-gen power (in addition to the existing 30MW co-gen power plant) in Pawarwadi, Village - Majalgaon Taluka, Beed District, Maharashtra by M/s NSL Sugars Limited (Unit III) – Environment Clearance – [F. No. J-11011/26/2015-IA II (I)]
 - (i) The project proponent and their consultant M/s Pioneer Enviro Laboratories & Consultants Pvt. Ltd, Hyderabad (accredited) gave a detailed presentation on the

salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP and informed that:

(ii) The proposal is for expansion of sugar plant from 7000 to 12000 TCD and 100KLPD Molasses based distillery plant along with 3 MW co-gen power (in addition to the existing 30 MW co-gen power plant) in Pawarwadi, Village - Majalgaon Taluka, Beed District, Maharashtra by M/s NSL Sugars Limited (Unit III). The unit has obtained Environmental Clearance for 12000 TCD sugar plant, 30 MW cogeneration power plant and 100 KLPD Molasses based distillery plant in Pawarwadi Village, Majalgaon Taluk, Beed District, Maharashtra vide order No.F. No. J-11011/1264/2007-I A II (I) dated 30.04.2009 (in the name of M/s. Jay Mahesh Sugar Industries Limited). The company is now operating 7000 TCD sugar plant and 30 MW co-gen power plant and the 100 KLPD distillery plant under erection stage. Environmental Clearance validity has been lapsed on 30.04.2014 and due to PP's mistake in interpretation of EC validity, the company was unable to apply for extension of validity before the EC validity tenure and PP has requested for issue of Environmental clearance for unimplemented unit. The unimplemented units comprise of 5000 TCD Sugar plant & 100 KLPD Molasses based Distillery plant. In addition, the company has also proposed to generate additional 3 MW power from Existing 2 X 20 TPH Boilers. The proposed capacity is below:

S.N	Unit	Capacity		
		As per Ministry's EC No. J-11011 /1264/ 2007-IA II (I) dated 30.04.2009.	Implemented Units	Proposed Capacity
1.	Sugar	12000 TCD	7000 TCD	5000 TCD
2.	Co-gen Power plant	30 MW	30 MW	3MW
3.	Distillery	100 KLPD	-	100 KLPD

- (iii)All Sugar industry are listed at S.N. 5(j) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'B'. All molasses based distilleries are listed at S.N. 5(g) (i) and Thermal Power Plants are listed at S.N.1(d) of Schedule of EIA Notification under Category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).
- (iv)The proposed expansion will be taken up in the existing plant premises of 100 acres only. The cost of the present project is Rs. 100 crores.
- (v) The total water requirement as per the existing environmental clearance for integrated sugar complex is 6200 KLD. The actual water requirement for existing and proposed

unimplemented unit of the integrated sugar complex is 3100 KLD. The existing plant is drawing water from Ground water source. Permission from the Central Ground Water Authority for drawl of ground water has been obtained on 21st July, 2008 and which was valid upto 20/07/2013 and same is applied for renewal.

(vi)Power requirement for the proposed unimplemented units will be sourced from captive power. The PP informed that the existing cogeneration power plant (30 MW) is operating with Bagasse as fuel in the 135 TPH Boiler as per EC dated 30.04.2009. PP has now proposed to use 15 % coal on annual basis in the 135 TPH Boiler as per MNRE guidelines. The required power & steam for distillery and unimplemented sugar plant will be utilized from existing 2X20 TPH boilers and 3 MW TG. In addition to the above the provision will be made to draw the steam and power from 135 TPH Boiler & 30 MW turbines.

During deliberations the EAC noted that proper green belting has not been done by the PP. PP informed that the ground water withdrawal permission has been obtained from the concerned authority. However, EAC noted from the records, produced by the PP, that the permission has been expired. It was also noted that validity of the consent to operate from SPCB has also been expired. EAC suggested to revise the layout plan of the proposed plant incorporating green belt as per norms around the periphery of the plant.

After detailed deliberations on the proposal the EAC suggested the PP to:

- (i) Explore the possibility of surface water availability.
- (ii) Conduct Occupational health analysis of workers through Government medical Doctor/Occupational Health certified doctor.
- (iii) Rework in order to reduce the water requirement.

The EAC therefore decided to defer the proposal till the submission of above information along with valid documents.

16.3.14. Proposed Expansion of Sugar unit (4500 TCD to 12000 TCD), Cogeneration Power Plant (20 MW to 70 MW and Distillery Unit (60 KLPD to 160 KLPD) at Post Shetphalgade, Tehsil Indapur, District Pune, State Maharashtra by M/s Baramati Agro Ltd. – *Environmental Clearance*–[F. No. J-11011/106/2016-IA II(I); online proposal no. IA/MH/IND2/27937/2015 dated 04th October, 2016]

The Project Proponent and the accredited Consultant M/s Ultra Tech, Thane, gave a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for expansion of Sugar unit (4500 TCD to 12000 TCD), Cogeneration Power Plant (20 MW to 70 MW) and Distillery Unit (60 KLPD to
160 KLPD) at Post Shetphalgade, Tehsil Indapur, District Pune, State Maharashtra by M/s Baramati Agro Ltd.

- (ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 7th meeting held during 27th- 28th April, 2016 and recommended Terms of References (TORs) for the Project. The TOR has been issued by Ministry vide letter dated 21st June, 2016.
- (iii) All Sugar industry are listed at S.N. 5(j) and Power plants (>15 MW) based on biomass fuel are listed at S.N. 1(d) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'B'. All molasses based distilleries are listed at Sl.No. 5(g) (i) of Schedule of EIA Notification under Category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).
- (iv) The PP has obtained environmental clearance (EC) for the existing distillery unit (60 KLPD) and Cogeneration Power Plant (20 MW) vide MoEF letter no. J-11011/475/2007 - IA II (I) dated 15th April, 2008. Regional Office of MoEF&CC at Bhopal vide letter no. 5-87/2008(ENV)/537 dated 11.06.2015 has submitted the certified copy of statement of compliance to the environmental conditions prescribed in the existing EC.
- (v) The plant will be established in the same premises of the existing sugar industry. The total plot area for the proposed expansion under the project is 18 Acres. The total Cost of the project for the expansion is Rs. 460 Crores The raw material, molasses and Bagasse generated from the sugar plant will be utilized in the proposed distillery and power plant, respectively.
- (vi) No Reserve Forest/ protected area/eco-sensitive area/ Coral Formation falls within 10 km radius from the project site.
- (vii) Fresh Water need daily is 882 m³. Permission of Irrigation Department is obtained. Water source is Khadakwasala canal and Ujani Dam. Nearest water source for the plant is canal flowing at a distance of 2 km. additionally, a pipeline from Ujani Dam is also erected from 12 km.
- (viii) There will be four types of effluent. (a) Sober effluent from cooling, boiler blow down, purging water, (b) Moderate effluent from vessel/floor washing, process, spent lees stream, (c) Condensate water from MEE and (d) Industrial highly polluted water (spent wash) from distillery.
- (ix) This is Zero Liquid Discharge unit. No water is discharged from the site to surrounding area. The sober effluent is given physico-chemical treatment. Then this water is combined with Moderate effluent which is treated with equalization, neutralization, aeration, secondary clarifier and tertiary treatment.
- (x) Spent wash generated in proposed project can be used as compost (organic fertilizer). (It is also permitted to convert this and use as fuel in the factory).
- (xi) Air pollution control equipment like ESP, wet scrubber, Stack of appropriate height installed.
- (xii) Handling of solid waste is considered, which is limited in volume. Some of it is already proposed to be used for good cause to serve as raw material or fuel or as manure. Hazardous waste is only in the form of limited waste oil and can be used after separation a either for lubricating the carts or burnt in boiler along with

bagasse. Ash is useful both for brick-making as well as foe farming, and hence, much in demand. Thus, this leads to conservation of natural resources.

- (xiii) Sturdy foundation provided for machines, personal protective equipment like ear plugs given to workers, tree belt as sound barrier around factory and sides cladding.
- (xiv) Power requirement of 2500 KW will be met from Electricity Board and own generation. Bagass fired boilers of 2 X 110 TPH & 2 X10 TPH will be installed and connected with ESP & wet scrubber with stack height of 65 m for sugar co-gen and 40m for distillery for dispersion and for proposed boiler as per SPCB consent. The power evacuation line is connected to Bhigwan Sub-Station of 220 kV EHV substation through LILO arrangement at 0.5 km from plant site.
- (xv) CSR plan is prepared for expenditure of 2.5% of project cost, which is estimated to be Rs. 11.5 crores. CSR amount is Rs. 1150 lakh. PP informed that water requirement is 8 kl/KL. 80% of water is regenerated through bio-nitrification.

(xvi) ZLD is implemented.

(xvii)Public Hearing for the proposed project has been conducted by the Maharashtra State Pollution Control Board 19.08.2016.

#	Product	Production			Working
		Existing	New	Total	days
1	Crystalline Sugar	4500	7500	12000 TCD	180
2	Co-gen power	20	50	70 MW	240
3	Distillery (Ethyl	60	100	160 KLPD	270
	Alcohol)				

(xviii) The following products will be generated by the company:

The EAC has deliberated upon the issues raised during the public hearing. The concerns were raised regarding water requirement for the unit, raw material from vicinity, employment, ash waste, spent wash disposal, etc. The EAC noted that the issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report. The EAC also deliberated on the certified compliance report submitted by the RO, MoEFCC, Nagpur and found satisfactory. The Committee after detailed deliberations recommended the project for grant of Environmental Clearance subject to compliance of following specific conditions:

(i) A ESP & wet scrubber with stack height of 65 m for sugar co-gen and 40m for distillery for dispersion and for proposed boiler as per SPCB consent to be installed. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.

(ii) Distillery unit shall be based on molasses based only and no grain based distillery unit shall be operated.

(iii) In plant, control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored and records shall be maintained. The emissions shall conform to the limits imposed by Maharashtra Pollution Control Board (MPCB).

(iv) Company shall follow good management practices viz. collection of waste yeast sludge from fermentation section in a closed system and proper disposal, reduced volume of effluent by adopting strategic approaches, closed drains carrying spent wash to the treatment units; minimization of fugitive emissions from anaerobic treatment; proper collection & handling of excess sludge generated from the anaerobic & aerobic treatment units; minimum retention of treated & untreated spent wash in the lagoons; effective composting of the spent wash by controlled effluent spraying through mechanical system to avoid spillages & over application, blending of sludge in correct proportion with press mud; and properly finished compost and green belt development with suitable plantation in and around the treatment units to mitigate odour from the distillery unit.

(v) Pucca approach road to project site shall be constructed prior to commencing construction activity of the main distillery so as to avoid fugitive emissions.

(vi) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB guidelines. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.

(vii) The company shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the respective Zonal office of CPCB and the MPCB. The levels of PM_{10} , $PM_{2.5}$, SO_2 , NOx, CO and HC (Methane) in ambient air shall be monitored and displayed at a convenient location near the main gate of the company and at important public places.

(viii) Fresh Water need daily shall not exceed 882 m^3 /day. Permission of Irrigation Department be obtained.

(ix) Spent wash to be generated will be used as compost (organic fertilizer) as proposed.Treated spent wash will be evaporated in MEE and concentrated spent wash will be bio-composted by mixing with press mud generated from sugar unit to achieve 'Zero' discharge. Evaporator Condensate, spentlees and utilities effluent shall be treated in polishing pond and recycled/reused in process. The storage of spent wash shall not exceed 5 days capacity.

(x) Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.

(xi) The Company shall ensure the quantity and marketability of bio-compost produce by distilleries by standard labeling such as 'AGMARK' etc.

(xii) As proposed, no effluent from distillery shall be discharged outside the premises and Zero discharge shall be adopted. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.

(xiii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

(xiv) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Bhopal and MPCB.

(xv) Baggase storage should be done in such a way that it does not get air borne or fly around due to wind. Fly ash shall be stored separately as per CPCB guidelines so that it shall 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 shall be avoided.

(xvi) Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided. Bagasse ash and coal ash shall be stored separately.

(xvii) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank.

(xviii) Risk Assessment shall be carried to assess the fire and explosion risk due to storage of alcohol and report submitted to the Ministry and its Regional Office at Bhopal within six months.

(xix) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.

(xx) Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.

(xxi) As proposed, green belt over 33 % of the total project area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

(xxii) All the commitments made during the Public Hearing / Public Consultation meeting held on 19.08.2016 should be satisfactorily implemented and adequate budget provision should be made accordingly.

(xxiii)At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with

financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

(xxiv)A regular environment manager having post graduate qualification in environmental sciences/ environmental engineering to be appointed for looking after the environmental management activities of the proposed plant.

(xxv) The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/ procedure to being into focus any infringement/deviation/violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.

(xxvi) Physical infrastructure and drinking water availability for the nearby villages may be improved under CSR plan.

(xxvii) Provision shall be made for the housing for the construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.

16.3.15: Proposed resin manufacturing project at Survey No.4490/1, Village:Umata,Ta:Visnagar, Dist. : Mehsana, Gujarat by M/s Moti Laminates Pvt. Ltd.(Unit-1) – Environment Clearance - [F. No. J-11011/115/2015-IA II (I);Online Proposal No. IA/GJ/IND2/28698/2015 dated 03 Oct 2016]

The project proponent and their consultant (M/s Ramans Enviro Services Pvt. Ltd.) gave a detailed presentation on the salient features of the project and informed that:

- i. Draft Terms of References (TORs) awarded in the 44th Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 20th– 21th July 2015 for preparation of EIA-EMP report.
- ii. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).
- M/s Moti Laminates Pvt. Ltd.(Unit-1) has proposed for resin manufacturing project at Survey No.4490/1, Village:Umata,Ta:Visnagar, Dist. : Mehsana, Gujarat. The total land area is 34,248 m², proposed expansion will be carried out

within the land area of laminated sheet manufacturing unit. out of which 11562 m² area will be used for greenbelt area development. The estimated cost of the Resin project is Rs. 95 lacs, Out of which Rs. 12 lacs will be earmarked towards the Environment Management System. Employment Generation opportunities would be 50 persons. As per Form-1, there is no wildlife/ eco sensitive/ reserve forest located within 10 km radius from the project site. Following products will be manufactured:

SR. NO	NAME OF PRODUCT	Quantity				
•		As per CTE	Proposed	Total		
		granted	Quantity	Quantity		
1	Laminated	Laminated 2.00.000 Nos	Nil	3,00,000		
1	Sheets	5,00,000 1105.	1111	Nos		
	Urea					
2	Formaldehyde	-	260 MT/M	*260 MT/M		
	Resin					
	Phenol					
3	Formaldehyde		350 MT/M	*350 MT/M		
	Resin					
	Melamine					
4	Formaldehyde		192 MT/M	*192 MT/M		
	Resin					

- iv. Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during 12th October, 2015 to 8th January, 2016 and submitted baseline data which indicates that ranges of concentrations of PM₁₀ (52.6 μ g/m³ to 96.1 μ g/m³), PM_{2.5} (21.2 μ g/m³ to 61.1 μ g/m³), SO₂ (7 μ g/m³ to 18.4 μ g/m³) and NOx (9.2 μ g/m³ to 22.4 μ g/m³), respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.80 μ g/m³, 3.0 μ g/m³ and 2.72 μ g/m³ with respect to PM ₁₀So₂ and NO₂. The resultant concentrations are within the NAAQS.
- v. The total power requirement for the proposed project will be 500 KVA which will be sourced from will be Uttar Gujarat Vij Company Ltd. D. G. set of capacity of 100 KVA and 400 KVA will be installed to meet with the power requirement during the Power Grid failure. The fuel consumption of HSD for the same will be @ 50 Lit/Hr.
- vi. Multicyclone separator followed by Bagfilter will be provided to Biocoal fired boilers (5 M TPH) and Thermal fluid heater (25 Lac K cal/Hr) to control particulate emissions.Stack of height 30 m will be provided to both boiler and Thermal fluid heater.

- vii. Total water requirement after proposed project will be 106 m3/day, out of which Fresh water requirement will be 105 m3/day which will be sourced from own borewell. The wastewater generated from process will be treated in ETP and then after will be evaporated using jacketed evaporation vessel having recirculation of oil from thermic fluid heater. The Domestic Effluent will be generated 10 m3/day will be treated in septic tank followed by soak pit. No effluent will be discharged outside the plant premises and zero discharge will be followed.
- viii. ETP sludge and wastes residue will be sent to treatment storage disposal facility for hazardous waste (TSDF). Used Oil will be sold to the registered recyclers/reprocessor. Wastes residues will be sent to TSDF Fly ash will be sold to the brick manufactures unit.
- viv. The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 31st August 2016. The issues were raised regarding CGWA Permission for groundwater withdrawal, Membership of authorized TSDF site for disposal of hazardous and Submission of odour control plan as a part of TOR. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Multi-cyclone separator followed by Bag filter will be provided to Bio-coal fired boilers (5 M TPH) and Thermal fluid heater (25 Lac K cal/Hr) to control particulate emissions. Stack height 30 m will be provided to both boiler and Thermal fluid heater.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.
- v) Total fresh water requirement from ground water source should not exceed 105 m³/day and prior permission should be obtained from the CGWA/SGWA.
- vi) The wastewater generated from process will be treated in ETP and then after will be evaporated using jacketed evaporation vessel having re-circulation of oil from thermic fluid heater. The Domestic Effluent will be generated 10 m3/day will be treated in septic tank followed by soak pit. No effluent will be discharged outside the plant premises and zero discharge will be followed.
- vii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid /

hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.

- viii) Green belt over 11562 m^2 area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- ix) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 31st August 2016should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- xi) At least 2.5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. As committed, implementation of such program should be ensured for Sadulka village in a time bound manner.

16.3.16 Proposed expansion of existing unit at Jhagadia Industrial Estate, Dist. Bharuch, Gujarat by M/s UPL Ltd. (Unit - V)– [F. No. J-11011/80/2015-IA-II(I); Online proposal no. IA/GJ/IND2/27263/2015 dated 01st October, 2016] – Environmental Clearance

The project proponent and their consultant (M/s Siddhi Green Excellence Pvt. Ltd.) gave a detailed presentation and informed that:

- i. Terms of References (TORs) awarded in the 40th Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 18th – 19th May 2015 for preparation of EIA-EMP report.
- All units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.
 M/s UPL Ltd.(Unit-V) has proposed for Expansion of Agro Chemicals and Intermediates Chemicals Manufacturing Unit at Plot no. 75 0 & 746 at Jhagadia Notified Industrial Estate, District Bhurch, Gujarat.
- iii. The total land area is 866373.98 m2 ,out of which 25% area of 2,19089.5 m² will be developed as green belt.
- iv. It is reported that no ecosensitive zone is located with 10 km distance. Ratanpur Reserve Forest is located at a distance of 9.45 Km. Narmada River is flowing at a distance of 7.89 Km respectively.
- v. Project cost is Rs 1923.68 Crore.
- vi. Following products will be manufactured:

Sr. No	Name of Products	CTE (available) pending to convert consent MT/Month	CTO Availab le MT/Mo nth	EC Applied for additional production MT/Mont h	Total After Expansio n MT/Mon th	Category
1	Mancozeb	-	4000	8333.33	11633.33	Pesticide (Fungicide)
2	Antracol	NIL	4000	1000	1700	Pesticide (Fungicide)
3	Pendimethylen e	-	400	833.33	1233.33	Pesticide
4	Glufosinate	NIL	550	1250	1700	Pesticide
5	Glyphosate	-	330	NIL	100	Pesticide
6	CS ₂ (carbon di sulfide)	-	3000	3750	6750	Intermediate Chemical
7	S Metachlor	200	NIL	1666.67	1866.67	Pesticide
8	Acephate	800	NIL	1666.67	2466.67	Pesticide
9	Acroline	NIL	NIL	666.67	666.67	Intermediate Chemical
10	Dimethyl Cyanoiminodit hio-carbonate (CCITM)	NIL	NIL	167.67	167.67	Intermediate Chemical
11	Tri Ethyl Phosphite	NIL	NIL	1000	1000	Intermediate Chemical
12						
12.1	Potassium Ethyl Xanthate					
12.2	Sodium isopropyl Xanthate					
12.3	Potassium isopropyl Xanthate	NIL	NIL	833.33	833.33	Intermediate Chemical
12.4	Potassium amyl Xanthate					
12.5	1,6-Bis (N,N- dibenzyl thiocarbamyldi thio) hexane					

Sr. No	Name of Products	CTE (available) pending to convert consent MT/Month	CTO Availab le MT/Mo nth	EC Applied for additional production MT/Mont h	Total After Expansio n MT/Mon th	Category
	(Rubber Chemicals)					
12.6	1- Methylamino- 1-Methylthio - 2-Nitroethene (Pharma Intermediates)					
13	Clomazone	NIL	NIL	416.67	416.67	Pesticide
14	Mesotrion	NIL	NIL	416.67	416.67	Pesticide
15	Flonicamide (IKI220)	NIL	NIL	166.67	166.67	Pesticide
	H ₂ S based Products					
16	DMSO	NIL	NIL	1250	1250	Specialty Chemical
17	NaHS (40%) Solution	NIL	NIL	2500	2500	Specialty Chemical
18	Na ₂ S solution	NIL	NIL	2500	2500	Specialty Chemical
19	Na ₂ S Solid	NIL	NIL	2500	2500	Specialty Chemical
20	Liquid Formulation Products	NIL	NIL	4166.67	4166.67	Pesticide Formulation products
21	Solid Pesticide Formulation products	NIL	NIL	7083.33	7083.33	Pesticide Formulation products
22	Tri phenyl Phosphite	-	300- 150=150 *	NIL	150*	Specialty Chemical
23	PCL ₃ Plant (Phosphorous Tri Chloride)	-	2550	NIL	2550	Specialty Chemical
24	156 TPD caustic					

Sr. No	Name of Products	CTE (available) pending to convert consent MT/Month	CTO Availab le MT/Mo nth	EC Applied for additional production MT/Mont h	Total After Expansio n MT/Mon th	Category
	Chlorine Plant					
	1) caustic soda lye 48% (on 100 % basis)	10500	4680	NIL	15180	
	2) Chlorine Gas	8537	3972	NIL	12509	Specialty
	3) Hydrogen Gas	263	225	NIL	488	Chemical
	4) Hydrochloric Acid 30%	2625	1200	NIL	3825	
25	50 MW power plant (Electrical Power)	· <u>-</u>	87.5MW /Hr	NIL	87.5MW/ Hrs	Power
26	Phosphorous	-	900	NIL	900	Specialty Chemical
27	Phosphorus Acid Tri butyl phosphate (TBPO) Tri Iso butyl Phosphite (TIBP)	_	150- 90=60*	NIL	60*	Specialty Chemical
28	Phosphorous Penta Chloride (PCl ₅)	-	200	NIL	200	Specialty Chemical
29	Phenyl Di Iso Decyl Phosphite OR Tri Decyl Phosphite (TDP) OR Tris Tri Iso Decyl	-	100- 50=50*	NIL	50*	Specialty Chemical

Sr. No	Name of Products Phosphite	CTE (available) pending to convert consent MT/Month	CTO Availab le MT/Mo nth	EC Applied for additional production MT/Mont h	Total After Expansio n MT/Mon th	Category
	(TTDP)					
30	Di Phenyl Methyl Phosphonate OR Tri Phenyl Phosphate (TPPA) OR	-	200- 185=15* OR	NIL	15* OR	Specialty Chemical
	Bisphenol Di Phosphate (BDP)		50- 46.5=3.5 *		3.5*	
31	Phosphorous Oxychloride (POCl3) OR	_	250- 125=125 * OR	NIL	125*	Specialty
	Phosphorous Trichloride (PSCl3)		200- 100=100 *		100*	Chemical
32	Fosthiazate (IKI 1145) OR	-	250 OR	NIL	250 OR	Pesticide
	2,4 D technical (2,4 Di Chloro Phenoxy Acetic Acid)		125*	NIL	125*	Pesticide
33	Dichloro Vinyl Acid Chloride (DVACL) /Acrolein/ triethylphosphi te (Combine capacity)	-	300*/ 300*/ 300*	NIL	300*/ 300*/ 300*	Intermediate Chemical
34	N Alkylated Xyledene <u>OR</u> HRT Ketone	_	300 200	NIL	300 200	Intermediate Chemical

Sr. No	Name of Products	CTE (available) pending to convert consent MT/Month	CTO Availab le MT/Mo nth	EC Applied for additional production MT/Mont h	Total After Expansio n MT/Mon th	Category
	OR					
	2 Ethyl 6					
	Methyl N N		300		300	
	Aniline <u>OR</u>					
	MPBAL OR		300		300	
	UPDT					
	(Saponified					
	Polyacrylonitri		300	NIL	300	
	le starch graft					
	polymer)					
	Glufosinate/Pe					
	ndimethelen/S-					
	Metalachlor/Fl					
35	onicamide					Pesticide
	(IKI220)/Clom	-	6700	NIL	6700	Formulation
	azone/Acepaha					
	te (Combine					
26	capacity)	200	NUT		200	D
36	Tebuconazole	200	NIL	NIL	200	Pesticide
37	Acefloroten	500	NIL	NIL	500	Pesticide
38	Cyermetrin	500	NIL	NIL	500	Pesticide
39	Permetrin	300	NIL	NIL	300	Pesticide
	MNSO ₄					.
40	(Manganese	10000	NIL	NIL	10000	Intermediates
-	Sulphate)					Chemical
	Solution 31%					
	D1 Methyl					
41	rnospnoro		600	NIL	600	
	Amido Inioate					
	(DMPAI)	24425	20027	1216760	107410	
	Total	34423	50027	42107.00	10/419	

Sr. No.	By Product Name	NOC (available) pending to convert consent	CC&A Availabl e MT/Mon th	EC Applied for additional production	Total After EC Expansion
		MT/Month		MT/Month	MT/Month
1	HCl solution	94.8	2732.02	440	3266.82
2	Dilute Sulphuric Acid	262.5	1655	1250	3167.5
3	Sodium sulphate (Powder) OR	-	4092	9066.75	13158.75
3.a	Sodium Sulphate Solution	-	15680	35895.67	51575.67
4	Mn(OH) ₂ (manganese Hydroxide)	-	236	492	728.00
5	Zn(OH) ₂ (Zinc Hydroxide)	-	39	9.75	48.75
6	NaSH solution	-	1876	16418.08	18294.08
7	Magnesium Chloride Solution	-	2070	4702.5	6772.50
8	AMMONIUM ACETATE OR	464	NIL	3926.67	4390.67
8.a	ACETIC ACID & AMMONIUM SULPHATE or	-	NIL	4633.33	4633.33
8.b	Ammonium sulphate & Sodium Acetate (30%	-	NIL	5920.00	5920.00

Sr. No.	By Product Name	NOC (available) pending to convert consent	CC&A Availabl e MT/Mon th	EC Applied for additional production	Total After EC Expansion
		MT/Month		MT/Month	MT/Month
9	Ammonium Chloride (Powder) OR	-	1034.25	3676.5	4710.75
9.a	ANHYDROUS AMMONIA or	-	NIL	415.00	415.00
9.b	20 % AQ AMMONIA or	-	NIL	2075.00	2075.00
9.c	CALCIUM CHLORIDE SOL or	-	NIL	4800.00	4800.00
9.d	CALCIUM CHLORIDE POWDER	-	NIL	1600.00	1600.00
10	METHYL MERCAPTAN T	-	NIL	295.83	295.83
11	SODIUM BISULPHITE SOL	-	NIL	1276.58	1276.58
12	ETHANOL	-	NIL	37.83	37.83
13	Spent Solvent (MDC)	-	NIL	208.33	208.33
14	Sodium Hypochlorite	525	225	NIL	750
15	Ferrous Phosphorous	-	150	NIL	150
16	Calcium Silicate	-	6000	NIL	6000
17	Tri Phenyl Phosphate (TPPA)	-	66.51	NIL	66.51
18	Ammonium Sulphate Solution	-	3600	NIL	3600
19	Ammonium Sulphate Solid	-	750	NIL	750

Sr. No.	By Product Name	NOC (available) pending to convert consent	CC&A Availabl e MT/Mon th	EC Applied for additional production	Total After EC Expansion
		NI I / Month		NI I / Month	NI I / Month
20	Ethylene Chloride	-	44.5	NIL	44.5
21	Ammonium Hydroxide (20%)	-	116.75	NIL	116.75
22	POC13	-	400	NIL	400
23	Sodium Sulphite	-	1200	NIL	1200
24	PTSA	-	94	NIL	94
25	Acetic Acid	1185	NIL	NIL	1185
26	Ammonia solution	-	118*		118*
27	Ammonium Chloride	-	348*		348*
28	Steam	-	60	NIL	60

- vii. Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 9 locations during 1st February, 2015 to 31st May, 2015 and submitted baseline data which indicates that max. ranges of concentrations of PM₁₀ (54 to 138 μ g/m³), PM_{2.5} (43-58 μ g/m³), SO₂ (8-42 μ g/m³) and NOx (8-54 μ g/m³), respectively, which are within the NAAQS. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.82 μ g/m³, 0.08 μ g/m³ and 0.17 μ g/m³ with respect to PM _.So₂ and NO₂. The resultant concentrations are within the NAAQS.
- viii. Fresh water demand after the proposed expansion will be $17091 \text{ M}^3/\text{day}$.
- viv. After expansion the waste water generation (domestic 268 + 4500 industrial) will be 4768 m^3 /day.
- x. The domestic effluent after proposed expansion is estimated to be ~ 268 KLD for which STP of capacity 300 KLD is proposed. 1148 Kl/day of Industrial waste water (High TDS) shall be treated in MEE followed by RO and RO reject will be sent to the ETP. It is proposed to setup a separate ETP of capacity 1600 KLD having primary, secondary and tertiary treatment units. Treated effluent from ETP shall be discharged into GIDC drainage network for final disposal in to deep sea through pipeline.

- xi. One no. new boiler of 150 TPH NG/Coal/Biomass/briquettes fired with bunker bay, ESP and stack of 100 m height and fly ash silos shall be installed. Two stage water scrubbers with 30 m stack height shall be provided for control of process emissions of ammonia, HCL and SO2 emissions separately.
- xii. Existing site power is supplied by DGVCL(6 MWH) ,Captive power plant on coal & NG (21 MWH). For proposed additional power requirement will be 15 MWH from DGVCL & from Captive power plant @ 50 MWH.
- xiii. There are existing 5 no. of DG set (capacity: 625 KVA, 750 KVA, 1250 KVA, 1000 KVA, 320 KVA) as standby source of electricity in case of power supply failure.
 Proposed additional DG Sets of 1000 KVA (6 Nos.) as standby source of electricity in case of power supply failure.
- xiv. Spent filter material, spent catalyst shall be sent to CHWIF. Spent solvent will be sold to the recyclers/incineration.
- xv. Contaminated cotton waste, insulation waste, non recyclable plastic waste, used PPE and incineration ash shall be sent to the TSDF.

The committee deliberated on the proposal and observed that as per the Terms of Reference granted by the Ministry vide letter no. J-11011/80/2015-IA.II (I) dated 13th July, 2015 the EIA report had to be prepared along with public consultation and certified compliance report from the RO, MoEF&CC was to be submitted. The committee noted that the PP has not submitted the details in this regard. The committee decided to defer the project for want of following information:

- 1. Latest certified compliance report from concerned RO, MoEF&CC.
- 2. Minutes of the Public Hearing conducted for the project.
- 16.3.17 Proposed Resin Manufacturing Project (Phenol Formaldehyde Resin 700 MT/month, Melamine Formaldehyde Resin 700 MT/month and Urea Formaldehyde Resin 500 MT/month) Survey No. 1068, Village: Lavad, Taluka: Dahegam, District: Gandhinagar, Gujarat by M/s Redd Mica Pvt. Ltd. [F. No. J-11011/271/2015-IA II (I)]- Environmental Clearance

The project proponent and their consultant (M/s T.R Associates.) gave a detailed presentation on the salient features of the project and informed that:

- M/s Redd Mica Pvt. Ltd. has proposed for Resin Manufacturing Project (Phenol Formaldehyde Resin – 700 MT/month, Melamine Formaldehyde Resin – 700 MT/month and Urea Formaldehyde Resin – 500 MT/month) Survey No. 1068, Village: Lavad, Taluka: Dahegam, District: Gandhinagar, Gujarat.
- ii. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level Expert Appraisal Committee (I).

- Terms of References (TORs) awarded in the 6th Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 30th March- 2nd April 2016 for preparation of EIA-EMP report.
- iv. Total plot area is 21853 m 2 of which greenbelt will be developed in the area of 8234 m 2 (37.6%).
- v. Cost of project is Rs. 94 Lac. Total budget allocation towards Environmental Management Facilities will be Rs. 31.55 lacs and recurring cost will be 29.6 Lacs per Annum.
- vi. It is reported that no national parks, Biosphere Reserves, Tiger/Elephant Reserves, lies within 10 km distance. Meshwo river is flowing at a distance of 1.95 km from the project site. Reserved forest at Devkaran na Muwada village is at a distance of 8 Km from project site
- vii. Ambient air quality monitoring was carried out at 9 locations during December, 2015 to February, 2016 and submitted baseline data which indicates that ranges of concentrations of PM_{10} (61 µg/m³ to 83.3 µg/m³), $PM_{2.5}$ (24 µg/m³ to 31.3 µg/m³), SO_2 (5.8 µg/m³ to 12.86 µg/m³) and NOx (8.8 µg/m³ to 22.5 µg/m³), respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.65 µg/m³, 0.25 µg/m³ and 1.5 µg/m³ with respect to PM _{SO2} and NO₂. The resultant concentrations are within the NAAQS.
- viii. Coal / Briquettes fired boiler having 4TPH capacity and Thermic Fluid Heater having 15 lac Kcal/hr will be installed. Cyclone separator followed by Bag filter will be provided as pollution control device and stack of 30 m height will be provided. Additional DG set of 250 KVA capacities will be used as a stand by.
 - ix. Fresh water requirement of 49.9 m3/day will be sourced from borewell. Against this wastewater of 18.6 m3/day will be generated. The wastewater will be treated in ETP based on Photo Fenton process with RO system. The plant is based on zero liquid discharge and no effluent to be discharged outside the premises.
 - x. ETP sludge, Evaporation residue will be sent to TSDF Site. Used oil will be collected, stored, and used within premises/sold to registered recycler Discarded container and bags will be sold to authorized. Edge cutting waste will be sent to common incineration facility.

S.No.	Product	Total Quantity
1.	Phenol Formaldehyde Resin	700 MT/Month
2.	Melamine Formaldehyde Resin	700 MT/Month
3.	Urea Formaldehyde Resin	500 MT/Month
4.	Laminated Sheets	3,00,000 Sheets/Month

xi. Following products will be manufactured:-

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 8th September, 2016. The issues were raised regarding environmental pollution due to this proposed activity and employment The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- (i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- (ii) Coal / Briquettes fired boiler having 4TPH capacity and Thermic Fluid Heater having 15 lac Kcal/hr shall be installed. Cyclone separator followed by Bag filter shall be provided as pollution control device and stack of 30 m height will be provided.
- (iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- (iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.
- (v) Total fresh water requirement from ground water source should not exceed 49.9 m3/day and prior permission should be obtained from the CGWA/SGWA.
- (vi) The wastewater will be treated in ETP based on Photo Fenton process with RO system. The Domestic Effluent will be treated in septic tank followed by soak pit. No effluent will be discharged outside the plant premises and zero discharge will be followed.
- (vii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- (viii) Green belt over 8234 m² area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- (ix) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- (x) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 8th September, 2016 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- (xi) At least 2.5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. As

committed, implementation of such program should be ensured for Sadulka village in a time bound manner.

16.3.18 Proposed capacity expansion (1715 MTPM to 3000 MTPM) for manufacturing of Surfactants & Specialty Surfactants Chemicals at Survey No. 193, Village Kherdi, Khanvel Udhava Road, Silvassa, UT of Dadra & Nagar Haveli by M/s Aarti Industries Ltd.- [F. No. J-11011/394/2014 IA II(I)] – Environment Clearance

The project proponent and their consultant (M/s Precitech Laboratories Pvt. Ltd.) gave a detailed presentation and inform that.

- i. Draft Terms of References (TORs) awarded in the 30th Reconstituted Expert Appraisal Committee (Industry) held during 22nd- 23rd December, 2014 for preparation of EIA-EMP report.
- All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. However, due to applicability of general condition and its location with the interstate boundary of Maharashtra within 5 KM distance, the proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).
- M/s Aarti Industries Ltd. has proposed for capacity expansion (1715 MTPM to 3000 MTPM) for manufacturing of Surfactants & Specialty Surfactants Chemicals at Survey No. 193, Village Kherdi, Khanvel Udhava Road, Silvassa, UT of Dadra & Nagar Haveli.
- iv. Total plot area is 30000 m² of which greenbelt will be developed in the area of 5235m². Cost of project is Rs.1070 Lacs.
- v. It is reported that D &NH wildlife sanctuary (deer park) is located at distance of 2.5 km. However, distance of reserved forests from the project site is not specifically indicated in FORM-I.
- vi. Proposed expansion will be carried out in the existing plant premises. The existing unit does not attract the provisions of EIA, Notification 2006 as it was established in the year 2001. A copy of consent to establish was issued by the Daman, Diu and Dadar Nagar Haveli on 12/09/2001 vide letter no. PCC/DDD/0-1594/WA/UR/2001-2002/521.
- vii. The ambient air quality monitoring was carried out at 6 locations during March 2015 to May 2015and submitted baseline data which indicates that ranges of concentrations of PM_{10} (54 85 µg/m³), $PM_{2.5}$ (21-40 µg/m³), SO_2 (16-34 µg/m³) and NOx (17-38 µg/m³), respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.81μ g/m³, 5.28μ g/m³ and 0.67 µg/m³ with respect to PM _{SO2} and NO₂. The resultant concentrations are within the NAAQS.
- viii. Power requirement will be increased from 1200 KVA to 1600 KVA .which will be sourced from state pollution control board.

- ix. Existing unit has 2 Nos. Bagasse/ Briquette fired Steam Boiler having capacity of 4 TPH & 2 TPH respectively and has connected with Multicyclone separator followed by bagfilter to control the air pollutant.
- x. Existing unit has D.G. Sets of 840 kVA capacity in case of power failure. In the proposed expansion, one thermic fluid heater of 2 Lakh kcal/Hr will be installed, also existing 4 TPH steam boiler will be operated at 100% load. 2 TPH boiler and existing D.G Sets will be discarded after the proposed expansion.
- xi. Total fresh water requirement will be increased 27.1 m3/day to 232 m3/day which will be sourced from In house bore-well/Tanker Water Supply. Total waste water generation after proposed project will be 64 m3/day out of which industrial waste water generation will be 50 m3/day and domestic waste water will be 14 m3/day. Industrial waste water will be treated in proposed ETP followed By RO & MEE. Domestic wastewater will be reused for greenbelt development after treatment in proposed STP. In existing unit, Acid Mist and SO2 are generated from the process of Sulfonation. The company has provided ESP and Alkali Scrubber as an Air Pollution Control Device. The same will be the control measures for the proposed project. For proposed expansion project Process emission will occur from the manufacturing process so; the company has proposed to install a Spray Dryer Plant with Bag Filter as an Air pollution control device in order to control the particulate matter.
- xii. Public hearing is exempted as per section 7(i), (iii) Stage (3), Para (i) (b) of EIA Notification for preparation of EIA/EMP Report as unit is located in notified Industrial area established prior to 2006.
- xiii. Following are the list of existing and proposed products will be manufactured:-

Sr. No.	Name of Product	Existing Qty in (MT/Mont h)	Total Qty after Expansion (in MT/Month)
Grou	up A – Surfactants (100% Purity Basis)		
1	Alfa Olefin Sulfonate (AOS)	250	
2	Sodium Lauryl Sulfate (SLS)/ Primary	250	
	Alocohol Sulfate (PAS)		
3	Sodium Lauryl Ether Sulfate (SLES)	165	
4	Linear Alkyl Benzene Sulfonic Acid	650	
	(LABSA/Acid Slurry)		
5	Liquid Detergents	250	
6	Household Cleaners	150	
7	Ammonium Lauryl Sulfate (ALS)		
8	Ammonium Lauryl Ether Sulfate (ALES)		
Grou	ıp B - Speciality Surfactants		
1	Fatty Monoethanol Amide		3000

2	Fatty Diethanol Amide		
3	Cocoamidopropyl Betaine		
4	Coco betaines		
5	Amine oxides		
6	Sodium Lauryl Sulfosuccinate (LSS)		
7	Sodium Lauryl Sulfosuccinate (LES)		
8	Benzalkonium Chloride 50%		
9	Benzalkonium Chloride 80%		
10	Ether Carboxylate, Sodium Salt		
11	Alcohol / Amine Ethoxylates		
12	Ethylene Glycol Monostearate		
13	Ethylene Glycol Distearate		
14	Sorbitan Monooleate		
The e	existing unit was establish before 2006, hence EC w	vas not required	d for existing
operations.			
The company holds CC&A No. PCC/DDD/O-1594/WA/AA/UR/01-02//346 dated			
09/10	/2013 for its existing manufacturing activities.		

After deliberation, the Committee sought following additional information:

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

The proposal was deferred till the desired information is submitted.

16.3.19: Proposed expansion of APIs and API Intermediates manufacutring unit at survey no. 238, 239, 240 & 248, Dhotigudem (V), Pochampally (M), Nalgonda Dist., Telangana by M/s Optimus Drugs Pvt. Ltd.- [F. No. J-11011/209/2015-IA II (I)] - Environmental Clearance

The project proponent and their consultant (M/s KKB Envirocare consultants Pvt. ltd.) gave a detailed presentation and informed that:

- i. Earlier Environmental clearance was obtained vide MoEF&CC letter no J-11011/452/2006-IA dated 20.08.2007 in the name of Ms. Suryakiran Labs Pvt. Ltd..
- Draft Terms of References (TORs) awarded in the 1st Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 30th November– 1st December 2015 for preparation of EIA-EMP report.
- iii. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level Expert Appraisal Committee (I).

- iv. M/s Optimus Drugs Pvt. Ltd.. has proposed for expansion of APIs and API Intermediates manufacutring unit at survey no. 238, 239, 240 & 248, Dhotigudem (V), Pochampally (M), Nalgonda Dist., Telangana. Existing land area is 1.64 Ha, additional 4.97 Ha land will be added under proposed expansion. Cost of the expansion project is Rs. 45.69 crore., Out of which Rs. 8.725 Crore and Rs. 16 crore per annum are earmarked towards capital cost and recurring cost per annum for implementation of Environmental management plan.
- v. Forests namely Lakkaram RF (0.6 Km), Malkapuram RF (3.6 Km); Turpugudem RF (2.5 KM); Lingareddygudem RF (4.9 KM) and Choutuppal RF (4.0 KM) are located within 10 km distance. Water bodies namely small pond Dhotigudem (1.53 Km), Jiblakpalli(2.5 Km), ChinnaMusi River(5.7 Km), NagaramCheruvu (5.5 Km) and TangalapalliCheruvu (6.24 Km) are located within 10km distance.
- vi. Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during December, 2015 to February, 2016 and submitted baseline data which indicates that ranges of concentrations of PM_{10} (36 µg/m³ to 52 µg/m³), $PM_{2.5}$ (16 µg/m³ to 28 µg/m³), SO_2 (4.7 µg/m³ to 11.2 µg/m³) and NOx (5.8 µg/m³ to 15.4 µg/m³), respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.896 µg/m³, 9.39 µg/m³ and 5.29 µg/m³ with respect to PM _{SO2} and NO₂. The resultant concentrations are within the NAAQS.
- vii. Power requirement after expansion will be1500 KVA including existing 490 KVA and will be met from Telangana State Centralpower distribution corporation limited(TSCPDCL). Power approval for expansion will be sanctioned through I-Pass (single window system) on submission.
- viii. Multi-cyclone followed by bagfilter will be provided to additional coal fired boiler (2X6 TPH) to control particulate emission. Existing 3 & 1.5 TPH coal fired Boiler will be removed. Scrubber with caustic solution will be to control process emission viz. HCl and SO2. Scrubber with water / HCl solution will be provided to control process emission viz. NH3. Additional DG set (1000 KVA) will be installed.
 - ix. Water requirement from groundwater will be increased from 71.1 m3 /day to 421 m3 /day after expansion, out of which fresh water requirement is 219 KLD. Effluent generation will be increased from 30.2 m3/day to 229 m3/day after expansion. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. Process organic residue, solvent residue and spent carbon will be sent to TSDF/cement industries. Fly ash will be sent to brick manufacturers.
 - x. The list of existing and proposed products are as follows:

List of Existing products and their Capacities

SI. No	Products	Quantity(TPA)		
Bulk D	Bulk Drugs (Any 4 campaign products at any point of time)			
1.	Niacinamide	120		
2	Itopride Hydrochloride	24		
3	Rabeprazole Sodium	36		
4	Clopidogrel Hydrogen Bisulfate	36		
5	Duloxetine Hydrochloride	12		
6	Drotaverine Hydrochloride	12		
7	TamsulosinHydrocloride	18		
8	Mosapride Citrate Dihydrate	12		
9	Alfuzosin Hydrochloride	12		
10	Omeprazole	36		
11	Itraconazole	30		
12	Pregabalin	36		
Maxim	im production	228		
Intermediates (Any 2 campaign products at any popint of time)				
1.	(2-Chloro phenyl)-(6,7-dihydro-4H-thieno[3,2-c] pyridin-5-yl)	18		
	acetic acid methyl ester			
2	3-Cyano-5-methyl hexanoic acid ethyl ester	12		
3	N-Methyl carbobenzyloxy-[(3-naphthalene-1-yl) oxy)-3- thiophene-2-yl phenyl] amine	48		
4	[2-(4-Amino methyl phenoxy)ethyl] dimethyl amine	24		
5.	2-[4-(3-Methoxy Propoxy)-3-methyl pyridin-2yl methyl sulfanyl] -1H-Benzoimidazole	36		
Maxim	84			
Total P	212			
Interme	ediates))	312		

List of Proposed Products and their Capacities:

SI. No.	Product	Quantity (kg/day)	Quantity (TPA)	Therapeutic Category / Intermediate to the product
Bulk Drugs – Campaign Products				
1	Pregabalin	266.7	96	Anticonvulsant
2	Linezolid	400	144	Antibiotic
3	Rosuvastatin Calcium	166.7	60	Antihyperlipidemic
4	Refaximin	166.7	60	Antibiotic
5	Lornoxicam	33.3	12	Anti-inflammatory
6	Sertaconazole Nitrate	16.7	6	Antifungal
7	Tioconazole	33.3	12	Antifungal

SI.		Ouantity Ouantity	Ouantity	Therapeutic Category
No.	Product	(kg/day)	(TPA)	/ Intermediate to the
				product
8	Montelukast Sodium	66.7	24	Antiasthmatic
9	Clopidogrel Bisulfate	233.3	84	Antithrombotic
10	Flubiprofen	66.7	24	Analgesic
11	Canagliflozin Hemihydrate	66.7	24	Antihyperglycemic
12	Dimethyl Fumarate	66.7	24	Anti-inflammatory
13	Sofosbuvir	266.7	96	Antiviral
14	Ledipasvir	33.3	12	Antiviral
15	Pirfenidone	33.3	12	Anti-fibrotic
16.	Atazanavir Sulfate	133.3	48	Antiretroviral
17	DarunavirEthanolate	66.7	24	Antiviral
18	Entecavir	16.7	6	Antiviral
19	Solifenacin Succinate	16.7	6	Anticholinergic
20	EletriptanHydrobromide	16.7	6	Antimigraine
21	Fenticonazole Nitrate	33.3	12	Antifungal
22	Prasugrel Hydrochloride	6.7	2.4	Antiplatelet
23	Abiraterone Acetate	20	7.2	Antineoplastic
24	ImatinibMesylate	16.7	6	Antineoplastic
25	Cabazitaxel	3.3	1.2	Antineoplastic
26	Gefitinib	13.3	4.8	Antineoplastic
27	Erlotinib	20	7.2	Antineoplastic
28	Dasatinib	6.7	2.4	Antineoplastic
29	Perampanel	3.3	1.2	Antiepileptic
30	Teriflunomide	67	2.4	Anti-multiple sclerosis
50		0./	2.7	agent
31	Pomalidomide	3.3	1.2	Anti-angiogenic
32	Lenalidomide	6.7	2.4	Anti-angiogenic
33	Latanoprost	8.3	3.0	Antiglaucoma
Inter	mediates – Campaign Products			
	Ethyl chloro[(4-			
34	methoxyphenyl) hydrazono]	16.7	6	
	acetate			_
35	3-Chloro-5,6-dihydro-1-(4-	167	6	
	nitrophenyl)-2(1H)-pyridinone	10./	10.7 0	Anixaban Intermediate
36	3-Morpholin-4-yl-5,6-dihydro-	16.7	6	r ipinuoun interineutute
	1H-pyridin-2-one		Ŭ	
	3-(4-Morpholinyl)-1-(4-	olinyl)-1-(4-		
37	nitrophenyl)-5,6-dihydro-	16.7	6	
	2(1H)-pyridinone			
38	(3β,8ξ,9ξ,14ξ)-17-	6.7	2.4	Abiraterone

SI. No.	Product	Quantity (kg/day)	Quantity (TPA)	Therapeutic Category / Intermediate to the product
	Iodoandrosta-5,16-dien-3-ol			Intermediate
39	3-(Diethylboryl)pyridine	33.3	12	-
40	N'-(4-Pyridin-2-yl-benzyl)- hydrazine carboxylic acid butyl ester	33.3	12	
41	Methoxycarbonyl-L-tert- leucine	66.7	24	Atazanavir Intermediate
42	tert-Butyl-{(1S)-1-[(2R)- oxiran-2-yl]-2-phenyl ethyl} carbamate	100	3	
43	N,N-Dimethyl-3-(2- methylphenoxy)-3-phenyl propan-1-amine Oxalate	8.3	3	Atomoxetine Intermediate
44	Methyl-5-bromo-2-methyl- benzoate	8.3	3	Compelification
45	[(5-Bromo-2-methylphenyl) methyl]-5-(4-fluorophenyl) thiophene	16.7	6	Intermediate
46	3-[(3-amino-4-methylamino- benzoyl)-pyridin-2-yl-amino]- propionic acid ethyl ester	16.7	6	Dabigatran Intermediate
47	N-(4-Cyanophenyl)-glycine	16.7	6	
48	(2S,3S)-1,2-Epoxy-3-(Boc- amino)-4-phenyl butane	33.3	12	Darunavir Intermediate
49	2-(2-Hydroxyphenyl)-4H- Benzo [e] [1,3] oxazin-4-one	66.7	24	Deferasirox Intermediate
50	(2-Butyl-5-nitrobenzofuran-3- yl)(4-hydroxy phenyl) methanone	33.3	12	Dronedarone Intermediate
51	(5-Bromo-1H-indol-3- yl)[(2R)-1-methyl pyrrolidin- 2-yl] methanone	33.3	12	Eletriptan Intermediate
52	Phenyl Vinyl Sulfone	33.3	12	
53	4-[(2-Cyanopropan-2- yl)amino]-2-fluoro-N-methyl benzamide	8.3	3	Enzalutamide
54	4-Isothiocyanato-2- (trifluoromethyl) benzonitrile	8.3	3	Intermediate
55	Ethyl (4-amino-2-nitophenyl) carbamate	25	9	Ezogabine Intermediate

SI. No.	Product	Quantity (kg/day)	Quantity (TPA)	Therapeutic Category / Intermediate to the product
	(3aR, 4S, 7R, 7aS)-4,7-			
56	methano-1H-isoindole-1,3- (2H)-dione	25	9	Lurasidone
57	(1R,2R)-Cyclohexane-1,2-di bis(methylene) dimethyl sulfonate	16.7	6	Intermediate
58	(1R)-2-{[2-(4- Nitrophenyl)ethyl] amino}-1- phenyl ethanol Hydrochloride	100	36	
59	(R)-2-[2-(4-Aminophenyl)- ethylamino]-1-phenyl ethanol Hydrochloride	33.3	12	Mirabegron Intermediate
60	(1R)-2-{[2-(4- Nitrophenyl)ethyl] amino}-1- phenyl ethanol	33.3	12	
61	5,6,7,7a-Tetrahydrothieno[3,2- c] pyridine-2(4H)-one Hydrochloride	16.7	6	
62	2-Bromo-2-(2-fluorophenyl)- 1-cyclopropylethanone	16.7	6	Prasugrel Intermediate
63	Cyclopropyl-2-fluorobenzyl ketone	16.7	6	
64	3-Isobutyl-pentanedioic acid dimethyl ester	100	36	
65	2-(1-Cyano-3-Methyl-Butyl)- ,1,3-Diethyl ester Propanedioic acid	233.3	84	Pregabalin Intermediate
66	(+/-)-3-(Aminomethyl)-5- methylhexanoic acid	500	180	
67	4-Amino-3-Fluorophenol	16.7	6	Regorafenib Intermediate
68	4-(4-Aminophenyl)morpholin- 3-one	66.7	24	Rivaroxaban Intermediate
69	3-Cyclopropylmethoxy-4- difluoromethoxy-benzoic acid	16.67	6	Roflumilast
70	4-Difluoromethoxy-3- hydroxybenzaldehyde	16.7	6	Intermediate
71	(+/-)-1-Phenyl-1,2,3,4- Tetrahydro isoquinoline	133.3	48	Solifenacin
72	(S)-1-Phenyl-1,2,3,4-	66.7	24	mermediate

SI. No.	Product	Quantity (kg/day)	Quantity (TPA)	Therapeutic Category / Intermediate to the product
	Tetrahydro isoquinoline			
73	4,6-Dichloro-5-amino-2- (propylthio) pyrimidine	16.7	6	Ticagrelor Intermediate
74	5-Methylisoxazole-4- carboxylic acid	16.7	6	Teriflunomide Intermediate
75	3-(4-Chlorobutyl)-1H-indole- 5-carbonitrile	33.3	12	
76	Ethyl-5-amino-1-benzofuran- 2-carboxylate Hydrochloride	16.7	6	Vilazodono
77	5-(Piperazin-1-yl)benzofuran- 2-carboxamide	33.3	12	Intermediate
78	5-(1-Piperazinyl)-2- Benzofuran carboxylic acid ethyl ester Hydrochloride	33.3	12	
79	2-(2-Ethoxyphenyl)-5-methyl- 7-propylimidazole [5,1 f] [1,2,4]triazin-4-(3H)-one	16.7	6	Vardenafil Intermediate
(Ma	Fotal Production Capacity ximum 10 products at a time).	2500	900	
R&D	activity	0.55	0.2	
(Ma	Fotal Production Capacity ximum 10 products at a time) and R&D activity.	2500.55	900.2	

The EAC deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Telangana Pollution Control Board on 15th September, 2016. The issues were raised regarding air and water pollution, employment, disposal of effluent, spending fund of CSR for village and ground water pollution. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

The EAC noted that PP has obtained environmental clearance from MoEF&CC vide letter no J-11011/452/2006-IA dated 20.08.2007 in the name of M/s Optimus Drugs Pvt. Ltd., and has submitted the copy of certified compliance report to the environmental conditions prescribed in the existing EC. The EAC examined the CCR issued by RO MoEF&CC and found that two specific conditions and four (04) General conditions have been reported as non complied. On enquire the PP assured to comply with the conditions which have been reported as non-complied. The EAC asked the PP to submit a action taken report on the non-complied points immediately.

After detailed deliberations, the Committee recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions:

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Multi-cyclone separator followed by bagfilter will be provided to additional coal fired boiler (2X6 TPH) to control particulate emission. Existing 3 & 1.5 TPH coal fired Boiler will be removed. Scrubber with caustic solution will be to control process emission viz. HCl and SO2. Less than 0.5 % content sulphur coal will be used.
- iii) Scrubber with water / HCl solution will be provided to control process emission viz. NH3. Additional DG set (1000 KVA) will be installed.
- iv) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- v) Total fresh water requirement from ground water source should not exceed 219 m³ /day after expansion and prior permission should be obtained from the CGWA/SGWA.
- vi) Effluent generation will be increased from 30.2 m3/day to 229 m3/day after expansion. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises.
- vii)Process organic residue, solvent residue and spent carbon will be sent to TSDF/cement industries. Process Inorganic residue, evaporation salts and ETP sludge will be sent to TSDF. Fly ash will be sent to brick manufacturers.
- viii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- ix) Total 33% area (including green belt) of total plant area to be developed as green cover. At least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. essentially be developed. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO; indigenous plant species like Seseam, Teak wood shall be preferred.
- x) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xi) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 15th September, 2016 should be satisfactorily implemented and a separate budget for implementing the same should be allocated information submitted to the Ministry's Regional Office. At least 5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office. As committed, implementation of such program should be ensured for nearby

village with 5 year implementation plan. Infrastructure development activities like schools, RO plant for drinking water, hospitals, and solar panels to be undertaken under CSR plan.

16.3.20: Proposed Ethylenediamine (EDA) Manufacturing unit at Plot no. E-8/1, MIDC Chincholi, Tal - Mohol, Dist. Solapur, Maharashtra by M/s Balaji Speciality Chemicals Pvt. Ltd.- [F. No. J-11011/293/2015-IA II (I)] -Environmental Clearance

The project proponent and their consultant (M/s Equinox Environments (I) Pvt. Ltd.) gave a detailed presentation and informed that:

- i. M/s Balaji Speciality Chemicals Pvt. Ltd. (earlier known as M/s Balaji Benzochem Pvt. Ltd.) has proposed Setting up of Chemcial manufacturing plant (45,330 MTPA) at Plot No. E 8/1, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra. A application has aleady been submitted for change in name from M/s Balaji Benzochem Pvt. Ltd.) to M/s Balaji Speciality Chemicals Pvt. Ltd.
- Draft Terms of References (TORs) awarded in the 4th Meeting of the Expert Appraisal Committee (Industry -2) held during 11th-12th February, 2016 for preparation of EIA-EMP report.
- iii. All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised at State level Expert Appraisal Committee (I). However, due to applicability of General Condition w.r.t wildlife sanctuary (GIB sanctuary) within 5 km, the project is treated as 'A' category.
- iv. It is reported that the Great Indian Bustard sanctuary is located within 5 km from the proposed project site. No national parks, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, lies within 10 km distance.
- v. Total plot area is 41920 m² of which greenbelt will be developed in the area of 7842 m² (33%). Cost of project is Rs. 96.20 Crore which includes existing and proposed expansion. Followings products will be manufactured;

Sr. N o	Product	Proposed List of Products (MT / Year)
1.	Ethylenediamine (EDA)	37,350
2.	Piperzine (PIP)	4,050
3.	Diethylenetriamine (DETA)	3,150
4.	Aminoethylpiperzine/	450

	Hydroxyethylpiperzine/ Aminoethylethanolamine	
5.	Mixture of Higher Amines	330
	Total	45,330

- vi. Two coal fired boiler having capacities 25TPH and 50 TPH will be installed and provided with bag filter and Electrostatic Precipitator (ESP) as pollution control device and connected with stacks of 45 m and 56 m height.
- vii. Fresh water will be supplied by MIDC. Water requirement shall be 2252.2 m3/day. Against this, a quantity of 238.2 m3/day of wastewater will be generated. Wastewater will be segregated into two streams as stream-I and Stream-II. The Stream I effluent generated would be treated in Forced Evaporation System and the residue would be forwarded to CHWTSDF. The Stream II effluent would be treated in Effluent Treatment Plant comprising of Neutralization Tank, Settling Tank, Reverse Osmosis Plant and then would be sent to Multiple Effect Evaporation System thereby achieving Zero Discharge. The residue after evaporation would be sent to CHWTSDF.
- viii. Boiler ash will be sold to registered brick manufacturing unit. Scrape material, carboys plastic, drums etc will be sold to the authorized recycler. Hazardous waste will handled as per the hazardous waste management rules. Spent carbon, catalyst and ETP sludge will be sent to common disposal facility.
- ix. The public hearing was exempted under para 7(i) III stage (3) (i) (b) of the EIA Notification, 2006 as proposed project is located in MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra.

After detailed deliberations, the Committee recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) NBWL clearance shall be obtained.
- ii) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- iii) Two coal fired boiler having capacities 25TPH and 50 TPH shall be installed and provided with bag filter and Electrostatic Precipitator (ESP) as pollution control device and connected with stacks of 45 m and 56 m height.
- iv) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- v) Wet scrubber should be provided to control process emissions.
- vi) Total fresh water requirement from MIDC supply should not exceed 2252.2 m3/day and prior permission should be obtained from the MIDC. Water consumption shall be reduced after one year assessment of the R& D of the new project.

- vii) Wastewater shall be segregated into two streams as stream-I and Stream-II. The Stream I effluent generated would be treated in Forced Evaporation System and the residue would be forwarded to CHWTSDF. The Stream II effluent would be treated in Effluent Treatment Plant comprising of Neutralization Tank, Settling Tank, Reverse Osmosis Plant and then would be sent to Multiple Effect Evaporation System thereby achieving Zero Discharge.
- viii) Unit shall be based on Zero Liquid discharge system.
- ix) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- x) Boiler ash will be sold to registered brick manufacturing unit. Scrape material, carboys plastic, drums etc will be sold to the authorized recycler. Hazardous waste will handled as per the hazardous waste management rules. Spent carbon, catalyst and ETP sludge will be sent to common disposal facility.
- xi) Green belt over 13833.6 m² area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO; indigenous plant species like Seseam, Teak wood shall be preferred.
- xii) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- Xiii) At least 2.5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Nagpur. As committed, implementation of such program should be ensured in a time bound manner.
- 16.3.21. Phenol Formaldehyde Resin, Melamine Formaldehyde Resin and Urea Formaldehyde Resin manufacturing unit at Survey No. 326P1, NH-27, Ravapar Nadi Village, Morbi Taluka, Morbi Dist., Gujarat by M/s Highborne Laminates Pvt. Ltd. – [F. No. J-11011/80/2016- IA II(I)] – Environmental Clearance

The project proponent and their consultant (M/s T.R Associates.) gave a detailed presentation and informed that:

 The Draft Terms of References (TORs) awarded in the 7th Meeting of the Reconstituted Expert Appraisal Committee (Industry -2) held during 28th-29th April 2016 for preparation of EIA-EMP report.

- ii. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level Expert Appraisal Committee (I).
- iii. It is reported that no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. Machchhu River and Godadhari river are flowing at a distance of 2.95 km and 4.30 km (E) respectively from proposed site.
- Total plot area is 21853 m2 of which 8234 m² area will be developed as green belt. Total project cost including existing facilities is Rs. 94 Lacs. About 70 persons will be employed.
- v. Proposed project will draw 350 KVA electricity from Paschim Gujarat Vij Company Ltd. (PGVCL). Additionally D. G. Set of 380 KVA using HSD/LDO at the rate of 20 Ltr./Hr be provided and will be connected to 6.7 m stack height. Briquettes fired boilers (5TPH) and a Thermic Fluid Heater (15 lac kcal/hr) with 30 m stack height and connected with Cyclone separator followed by Bag Filter as pollution control device. Condenser will be used for Laminated Sheets Dryer with 11 m stack height.
- vi. Total 52.5 m³/day of fresh water will be used and sourced from ground water but committee suggested to use only surface water. PP agree with that. Against which 23.93 m³/day wastewater will be generated. Domestic wastewater after treatment in sewage treatment plant will be used for gardening. Chemically treated water, Boiler blow down, RO rejected, cooling tower blow down water will be collected in treated water collection tank and then evaporated in Steam based evaporation system followed by condenser. The plant will based on Zero Effluent Discharge system.
- vii. ETP Sludge so generated will be sent to TSDF site. Used Oil after Collection, storage will be sent to the authorized recycler. Discarded Containers/Barrels/plastic will be sent to the authorized vendors and Fly ash will be send to brick manufacturers.
- viii. The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 13th September, 2016. The issues were raised regarding hazardous waste, disposal of wastewater, take measures regarding air emissions, social educational benefit and employment. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.
 - ix. Following products will be manufactured:

Sr.No.	Name of Product	Quantity (MTPM)
1	Phenol Formaldehyde Resin (P. F. Resin)	450
2	Melamine Formaldehyde Resin (M. F. Resin)	225

3	Urea Formaldehyde Resin (U. F. Resin)	225
4	Laminated Sheets	1,50,000
		Nos./Month

After detailed deliberations, the Committee recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Briquettes fired boilers (5TPH) and a Thermic Fluid Heater (15 lac kcal/hr) with 30 m stack height and connected with Cyclone separator followed by Bag Filter as pollution control device. Condenser will be used for Laminated Sheets Dryer with 11 m stack height.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- iv) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.
- v) Gas detector shall be installed in selected location for continuous monitoring.
- vi) Total fresh water requirement from surface source should not exceed 52.5 m3/day and No ground water shall be used for Industrial purpose.
- vii)Domestic wastewater after treatment in sewage treatment plant shall be used for gardening. Chemically treated water, Boiler blow down, RO rejected, cooling tower blow down water shall be collected in treated water collection tank and then evaporated in Steam based evaporation system followed by condenser. The plant shall based on Zero Effluent Discharge system.
- viii) No effluent shall be discharged outside the plant premises and zero discharge will be followed.
- ix) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.
- x) Green belt over 8234 m² area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xi) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xii)All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 13th September, 2016 should be satisfactorily implemented and a

separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.

xiii) At least 5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. As committed, implementation of such program should be ensured for nearby villages in a time bound manner.

Day 2 Friday, 9th December, 2016

16.3.22 Manufacturing Bulk Drugs (APIs) at Plot no. 212, IDA Pashmailaram, Patancheru (M), Medak District, Telangana by Ms. MSN Pharmachem Private Limited- [F.No. J-11011/173/2005-IA II(I)]- EC Amendment

The PP made a presentation before the EAC and informed that the Ministry had issued Environmental Clearance to Ms. MSN Pharmachem Private Limited vide letter No.J-11011/173/2005-IA II (I) dated 15th July 2005 for Bulk drug unit at Pashmailaram, Patancheru (M), Medak District, Telangana.

This application is for EC amendment for installation Two (2 Nos.) additional coal fired boiler of 5 and 10 TPH capacity to meet the steam requirements of ETP-ZLD & solvent recovery system in the existing plant premise. The PP admitted that there would be no increase in production capacity. Existing 3 TPH oil fired boiler will be used as standby.

After detailed deliberations, the committee recommended aforesaid amendment in the existing Environmental Clearance with the following stipulated specific conditions:

- i. No effluent shall be discharged outside the premises and Zero Liquid Discharge to be maintained.
- ii. ESP shall be provided to coal fired boiler to control particulate matter emission within 50mg/Nm^3 .
- iii. Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB, Regional Office of MoEF&CC and in the Company's website.
- iv. Coal in which Sulphur content is less than 0.5 % shall be used as boiler fuel.
- v. Submission of latest certified compliance report of earlier EC.

16.3.23 Bulk drug unit at Sy. No. 147, Ramlingamapally Villege, Bommalaramaram Mandal, Nalgonda District, A.P. by Ms. Optrix laboratories Pvt. Ltd. formerly M/s Auric Life Science- EC Amendment-[F.No. J-11011/412/2007-IA.II (I); Online proposal No. IA/TG/IND2/29985/2006]

The PP made a presentation before the EAC and informed that the MoEF had issued an

Environmental Clearance to M/s Auric Life Science vide letter No.J-11011/412/2007-IA II (I) dated 6th September, 2007 for Bulk drug unit at Sy. No. 147, Ramlingamapally Villege, Bommalaramaram Mandal, Nalgonda District, A.P. The PP further requested for following amendments in the earlier Environmental Clearance (vide letter no. J-11011/412/2007-IAII (I) dated 08th October, 2016):

- i. Addition of Two coal fired boiler of 4 TPH capacity to meet the steam requirement of ETP-ZLD with additional 2 No. of 500 KVA DG Sets for stand by power supply.
- ii. Addition of 1.21 Ha land (Total land 2.82 Ha) purchased adjacent to the existing industry.
- iii. During presentation PP informed that company name has been changed from M/s Auric life Sciences to M/s Optrix laboratories Pvt. Ltd.

The EAC deliberated on the proposal and found that there is sufficient land available within the existing premises; therefore the Committee not agreed with the proposal for addition of land. The EAC also noted that PP has not submitted application for name change and latest Certified compliance report of existing EC.

The proposal was deferred till the desired information is submitted.

16.3.24 Expansion of purified Terephthalic Acid (PTA) plant by M/s MCC PTA India Corp. Private Limited at village and PO Bhauniaraichak, Tehsil Sutahata in district Purba Midnapore in West Bengal Ms. MCC PTA India Corp. Private Limited - EC Amendment- F.No. J-11011/139/2006-IA II (I) –

PP did not attend the meeting. The EAC decided to defer the proposal.

16.3.25 Bluk drug unit by Ms. Morepen Laboratories Limited at village Malku Majra, Tehsil Nalagarh, District Solan, Himanchal Pradesh- EC Amendment- [F.No. J-11011/90/2003-]

Ministry had issued Environmental Clearance to Ms. Ms. Morepen Laboratories Limited vide letter No.J-11011/90/2003-IA II (I) dated 7th November 2003 for Bulk drug unit at at village Malku Majra, Tehsil Nalagarh, District Solan, Himanchal Pradesh.

Now, PP has requested online vide letter no. J-11011/90/2003-IAII (I) dated 07th September, 2016 for amendment in existing Environmental clearance for the following:-

i. Setting up an assembling unit for Nebulizers, Digital Thermometers, Feeding Bottles, Stethoscopes, Glucose Monitors, and Blood Glucose Test Strips, in the existing premises.

During presentation committee noted that proposed activity is for assembling of Nebulizers, Digital Thermometers, Feeding Bottles, Stethoscopes, Glucose Monitors, and Blood Glucose Test Strips in the existing premises. The Committee also noted that as PP confirmed that proposed activity will not require additional land & fresh water as well as there would be no increase in gaseous
emission, waste water discharge and hazardous waste generation.

After detailed deliberation committee was of the view that the proposed activity does not attract the provisions of EIA Notification, 2006.

16.3.26 Proposed Surface Production Facilities- Two Nos. Wells in CB-ONN-2003/2 at district Bharauch, Gujarat by Ms. Gujarat State Petroleum Corporation Ltd. (GSPCL)- EC Amendment [F.No. 11011/365/2012-IA. II (I); Online proposal no. IA/GJ/IND2/59769/2016]

Ministry had issued Environmental Clearance to Ms. Gujarat State Petroleum Corporation Ltd. vide letter No.J-11011/365/2012-IA II (I) dated 18th April 2016 for setting up of two surface facilities Ank#21 & Ank#21 at in CB-ONN-2003/2 at district Bharauch, Gujarat.

During presentation PP informed that estimation of production quantity was based on wells potential evaluated during initial well testing. Later on, it has been assessed that both the wells can produce with higher rates with implementation of Artificial Lift System, which provides external energy for Hydrocarbon lifting from bottom of well bore up to surface. Still the production has not been started by the PP. There is no addition of facilities which were approved earlier.

Now, PP has requested online vide letter no. GSPC/QHSE/ANK/MoEF-EC/2016-137 dated 15th October, 2016 for following amendments in existing Environmental clearance :

- 1. Change in the production capacity of oil and gas of two wells.
- 2. Change in the quantity of water generation and water consumption.

	Quantity	Quantity a	as per the	Amendment	ts in the
		issued EC		Quantities required	
		Well:	Well:	Well:	Well:
		Ank#21	Ank#40S	Ank#21	Ank#40S
Production	Oil	3-5	6-7	13-15	13-15
		SCM//day	SCM//day	SCM//day	SCM//day
	Gas	90-150	180-200	1000-3000	1000-3000
		SCM//day	SCM//day	SCM//day	SCM//day
Water	Produced	1-3	3-4	(Produced	Water
Generation	water	SCM//day	SCM//day	Quantity sh	all be Nil
and	Generation			initially and	is envisaged
Consumption				to be aroun	d 30%-70%
				of the proc	luced liquid
				HC in the la	ter stages of
				field product	ion life.)
	Water	2.2	2.2	5.74 SCM/ D	Day/EPS
	Consumption	SCM//day	SCM//day		

After detailed deliberations, the committee noted that there is no significant change in environmental quality affecting factors like transportation, fresh water requirement, waste waster generation and solid waste generation etc. Secondly, as informed by the PP the GSPC is a member of Kalol Effluent Treatment Plant of 20 meter per day, the increased waste water quantity per day will be disposed off within this permitted capacity.

The EAC recommended to accept the aforesaid amendments in the existing Environmental Clearance subject to compliance of following specific conditions:

i. No ground water will be used to meet water demand.ii. No waste water to be released in open drain, the same to be sent to treatment plant following the set procedure for discharge of waste water.

16.3.27 Bulk Drug Manufacturing Unit at Sy No. 544 to 546, village & Mandal Bikanoor, District Nizamabad, Andhra Pradesh by Ms. Virupaksha Organics Pvt. Ltd.- EC Amendment [F. No. J-11011/208/2011-IA.II (I); Online Proposal No.]

The PP informed that the Ministry had issued Environmental Clearance to Ms. Virupaksha Organics Pvt. Ltd vide letter No.J-11011/208/2011-IA II (I) dated 07th January, 2014 for Bulk Drug Manufacturing Unit at Sy. No. 544 to 546, village & Mandal Bikanoor, District Nizamabad, Andhra Pradesh. The application for name change has been submitted to the Ministry from Ms. Virupaksha Organics to M/s. MSN Life Sciences Private Ltd.

The PP further informed that the present proposal submitted online is for following amendments in existing Environmental clearance:-

- 1. Addition of land 14.16 Ha in the existing land area of 12.5 Ha. .
- 2. Installation of additional 2X14 TPH capacity coal fired boiler.

After deliberation, the Committee desired to have the latest certified compliance report of the conditions stipulated in the existing EC. The proposal was deferred till the desired information is submitted.

16.3.28 Bulk drug unit by Ms. MSN PHARMACHEM Private Limited (formery known as Monarch Laboratories Ltd.) at Pashamylaram village and Taluk Sangareddy in Medak District in Andhra Pradesh- EC Amendment [F.No. J-11011/173/2005-IA.II (I); IA/TG/IND2/59664/2005]

Repeated agenda item of the agenda item at 16.3.22.

16.3.29 Bulk drug Manufacturing unit at Survey No. 455, Chandampeth Village Shankarampet Mandal, Medak District, Andhra Pradesh by Ms. Apithecary Pharma Pvt. Limited- EC Amendment-[F.No. J-11011/247/2008-IA.II (I)] PP did not attend the meeting. The EAC decided to defer the proposal.

16.3.30 Proposed modernization/bulk drugs and intermediates manufacturing unit at Sy. No. 240/B, Dothigudem Village, Pochampally Mandal, Nalgonda Dist., Telangana by M/s V J Sai Chem – Environmental Clearance – [F. No. J-11011/67/2014-IA.II(I); IA/TG/IND2/58825/2013]

- 1. The project proponent gave a detailed presentation on the salient features of the project and informed that:
- Terms of References (TORs) awarded in the 18th Meeting of the Expert Appraisal Committee (Industry -2) held during 28th -30th April, 2014 for preparation of EIA-EMP report. The TOR letter was issued on 26th August, 2014.
- 3. The present proposal is for modernization/bulk drugs and intermediates manufacturing unit at Sy. No. 240/B, Dothigudem Village, Pochampally Mandal, Nalgonda Dist., Telangana. The proposed Modernization/Expansion will be done within existing site are of 1.36 acres, out of which green belt area is 0.45 acres.
- 4. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at central level.
- 5. The project involves following environmental sensitivities areas:
 - a. Reserved forests Jalalpur RF, Chauttuppal RF, Malkapuram RF , Hafeezpura RF Ailapur RF, Meharnagar RF, Lakkaram RF .
 - b. Water bodies:- Chinna musi river is flowing at a distance of 5.6 Km from project site.
- 6. Capital Cost of project is Rs.5 crore.
- 7. The ambient air quality monitoring was carried out at 8 locations during March, 2014 June 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (38 µg/m³ 49 µg/m³), $PM_{2.5}$ (14 µg/m³ 18 µg/m³), SO_2 (9 ug/m3–12 ug/m3) and NOx (11 µg/m³–14 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.46 µg/m³, 1.96 µg/m³ and 2.63 µg/m³ with respect to PM_{10} , SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).
- 8. The total power requirement will be met from TSPDCL and back up DG sets of capacity 1 x 500 KVA, 1 x 250 KVA proposed in addition to existing 1 x 125 KVA.
- 9. Coal will be used as fuel for proposed 1 x 5 TPH boiler, while existing 1 x 1 TPH coal fired boiler shall be kept as standby. Consumption of coal is 20 TPD.
- 10. The utilities are provided with stack height based on CPCB formula, in addition to Bag Filter for boiler as air pollution control equipment. Gaseous emissions from process are Hydrogen chloride, Sulphur dioxide, Carbon dioxide and Hydrogen. Hydrogen chloride and Sulphur dioxide emissions are scrubbed in two stage scrubbers and the resultant scrubbing effluent sent to ETP.
- 11. The total water requirement after expansion is 68 KLD ,out of which fresh water requirement is 46 KLD. Which will be sourced from bore wells within the site.

- 12. The quantity of effluents generated is 24.09 KLD after expansion. These effluents are sent to effluent treatment system based on Zero liquid discharge principle .These effluents are segregated as low TDS and high TDS stream . High COD/TDS stream in a stripper followed by multiple effect evaporator (MEE), and agitated thin film dryer (ATFD). The condensate from stripper is sent to cement plants for co-incineration, while the condensate from MEE and ATFD is mixed with low TDS/COD effluents to be treated in biological system. The salts from ATFD are sent to TSDF for disposalThe stripper distillate, process residue and solvent residue are sent to cement plants for co-incineration based on acceptability. The evaporation salts and ETP sludge are sent to TSDF. Waste oil and used batteries from the DG sets are sent to authorized recyclers.
- 13. The public hearing for the proposed project was conducted by the Telangana State Pollution Control Board on 7th June, 2016.
- 14. Following products will be manufactured:

S.No	Name of the product	Capacity		
		TPM	TPD	
1	Recovery of Piperzone Andhydrous (99%) from Piperzine ML's	4.5	0.15	
2	Recovery of N-Ethyl Piperzine (98%) from Piperzine ML's	4.5	0.15	
	Total	9.0	0.3	

Manufacturing Capacity -Permitted

Manufacturing Capacity – After Expansion

S.No	Name of the product	CAS No.		pacity
			ТРМ	Kg/Day
1	Amlodipine Besylate	111470-99-6	2	80
2	Clopidogrel Bisulfate	144077-07-6	2.5	100
3	Lansoprazole	103577-45-3	3	120
4	Rabeprazole Sodium	117976-90-6	2	80
5	Valsartan	137862-53-4	2.5	100
Total			12	480

S.No	Name of the Product Stage Name of the By-Product		Name of the By-Product	Caj	pacity
			Dy-110uuci	Kg/day	TPM
1	Valsartan	II	Triethyl Amine HCl	40.8	1.02
		III	Triethyl Amine HCl	36.8	0.92

List of By-Products - After Expansion

The Committee deliberated upon various aspects of the proposal and noted that proposal was recommended for grant of TOR by the EAC (Industry) in its meeting held during 28th -30th April, 2014 ; however, air quality monitoring data collection was done during March, 2014- June, 2014 i.e., prior to the recommendations of the EAC. After detailed discussion on this aspect the EAC accepted the ambient air quality monitoring data collected during March, 2014- June, 2014. Thereafter examined issues raised during the Public Hearing / Public Consultation meeting conducted by the Telangana State Pollution Control Board on 7th June, 2016. The concerns were raised regarding local employment, air pollution control measures, development activities etc. The proposed expansion requires about 20 people, and the proponent assured to recruit from the local villages only. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee, on the basis of the information provided and presentation made by the PP, recommended the project for grant of environmental clearance and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- (i) Cyclone separator followed by bag filter and the stack of adequate height shall be provided to coal fired boiler.
- (ii) Bag Filter with adequate stack height shall be provided to coal fired boiler of 5 TPH capacity. s air pollution control equipment. Gaseous emissions from process are Hydrogen chloride, Sulphur dioxide, Carbon dioxide and Hydrogen. Hydrogen chloride and Sulphur dioxide emissions are scrubbed in two stage scrubbers and the resultant scrubbing effluent sent to ETP.
- (iii) Wet Scrubber shall be provided to control process emissions viz. Hydrogen chloride, Sulphur dioxide, Carbon dioxide and Hydrogen. Hydrogen chloride and Sulphur dioxide in two stage scrubbers. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- (iv) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB. Odour management plan shall be implemented.
- (v) Total fresh water requirement from ground water source shall not exceed 46 KLD and prior

permission shall be obtained from the CGWA/SGWA.

- (vi) Wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS effluent stream will be sent to multiple effect evaporator (MEE) followed by Agitated thin film drier (ATFD). Low TDS effluent stream will be treated in biological treatment unit followed by RO. RO reject will be sent to MEE and permeate will be reused in cooling towers/ boilers make up. Domestic waste water shall be sent to septic tank followed by soak pit.
- (vii) No effluent will be discharged outside the plant premises.
- (viii)All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (ix) As proposed, the evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Fly ash will be sent to brick manufacturers. Used oil will be sent to SPCB authorized Recyclers/re-processor.
- (x) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- (xi) Fly ash shall be stored separately as per CPCB guidelines so that it shall 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 shall be avoided. Possibility to be explored to supply the surplus fly ash to the cement industry.
- (xii) Solvent management shall be as follows :
 - Reactor shall be connected to chilled brine condenser system
 - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
 - Solvents shall be stored in a separate space specified with all safety measures.
 - Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- (xii). Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act. Quarterly Health Camp will be organised by the PP in the nearby Villages and for all employees of the Company and Health Record should be maintained and submitted to the concerned Regional Office of the Ministry.
- (xii). All the issues raised during the Public Hearing/consultation meeting held on 7th June, 2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly. The R.O. Plant shall be installed in nearby village to ensure the supply of potable drinking water and regular maintenance of the R.O. plant will be owned by the Project Authorities.
- (xiii).At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social

Commitment (ESR) 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 Bangalore.

- (xiv).As proposed, green belt area 0.45 acres of 1.36 acres existing site area shall be maintained by growing indigenous perennial trees. Selection of plant species shall be as per the CPCB guidelines in consultation.
- (xv). The Committee suggested to have full ZLD system.
- 16.3.31 Proposed change in product mix and expansion of bulk durg and pharmaceutical intermediate manufacturing unit located at S. F. No. 223/3, 252/1, 253/2, 254/1, 2A, 265/1,2,3,4,5 and 266/1, Toremavu Village, Nanjangud Taluk, Mysore district, Karnataka by M/s Sequent Scientific Ltd. Environmental Clearance [F. No. J-11011/20/2015-IA II(I); IA/KA/IND2/57885/2014]

The project proponent and their consultant (M/s ABC Techno labs India Pvt. Ltd) gave a detailed presentation on the salient features of the project and informed that :

- M/s Sequent Scientific Ltd. has proposed change in product mix and expansion of bulk durg and pharmaceutical intermediate manufacturing unit located at S. F. No. 223/3, 252/1, 253/2, 254/1, 2A, 265/1,2,3,4,5 and 266/1, Toremavu Village, Nanjangud Taluk, Mysore district, Karnataka.
- (ii) The Draft Terms of References (TORs) were awarded in the 34th Meeting of the reconstituted Expert Appraisal Committee (Industry) held during 17th –19th February, 2015 for preparation of EIA-EMP report. The Ministry issued the Terms of Reference vide its letter No. J-11011/20/2015-IA.II (I) dated 30.04.2015.
- (iii) All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at central level.
- (iv) No National Parks, Wildlife Sanctuaries, Reserve Forest located in 10 km radius of the project site. Kabini River is flowing at a distance of 1.9 km from the plant site.
- (v) Proposed project will provide employment to the 25 persons.
- (vi) Ministry had issued EC earlier in 2009 in the name of Arvee Chem Pharma vide letter No. J-11011/1157/2007-IA II(I) dated 29th April, 2009 for manufacturing of bulk durg.
- (vii) Capital Cost of expansion project is Rs. 25.5 crore. Cost earmarked for Environmental management measures is Rs 4.41 Crores and its recurring cost per annum is Rs 30 Lakh.
- (viii) The proposed Expansion will be carried out within existing site area of 5.906 ha.
- (ix) That ambient air quality monitoring was carried out at 6 locations during March, 2015 May 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (30.4 µg/m³ 69.1 µg/m³), PM_{2.5} (15.6 µg/m³ 33.9 µg/m³), SO₂ (5.1 ug/m³–11.3 ug/m³) and NOx (6.6 µg/m³–24.6 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.53 µg/m³, 1.41 µg/m³ and 4.84 µg/m³ with respect to PM₁₀, SO₂ and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

- (x) Power requirement will be increased from 300 KVA to 1000 KVA and will be sourced from Chamundeshwari Electricity Supply Corporation Ltd. (CHESCOM).
- (xi) Fuel requirement for the existing and proposed DG Sets (Existing 500 KVA + Proposed 500 KVA each) will be HSD of capacity 6000 LPM.
- (xii) Existing Agro Boiler (0.75 TPH) required Briquettes of 27 TPM and Proposed Boiler (3TPH) requires either 250 TPM of briquettes or furnace oil 158 KLM.
- (xiii) The utilities are provided with stack height based on CPCB formula, in addition to Bag Filter for boiler as air pollution control equipment. Gaseous emissions from process are Hydrogen chloride, Sulphur dioxide, Carbon dioxide and Hydrogen. Hydrogen chloride and Sulphur dioxide emissions are scrubbed in two stage scrubbers and the resultant scrubbing effluent sent to ETP.
- (xiv) The total water requirement after expansion is 100 KLD ,out of which fresh water requirement is 80 KLD, which will be sourced from KIADB.
- (xv) Effluent generated from the process, vessel washing etc. is separated into High COD/TDS Stream and Low COD/TDS Stream. The High Polluting Stream will be treated in Stripper followed by Multiple Effective Evaporator and Agitated Thin Film Dryer. The Low Polluting stream is treated in the Effluent treatment plant followed by UF and RO. The treated water will be reused within the plant. Residues from evaporators will be disposed to TSDF along with process residue, spent catalyst, off spec products and ETP sludge. The used oil, spent solvent, discarded containers will be disposed to authorised recyclers.

S. No.	Name of Product	Existing Products (TPA)	Name of Product	Proposed Products (TPA)
1	Azacyclonol Base	60	Buparavaquone	12
2	Di BenzoSuberone	63	Praziquantel	300
3	ISO Nipecotic Acid	54.8	S-Methoprene Ammonium Salt	12
4	ISO Nipecotic Acid Ethyl Ester (INEE)	22.4	Ractopamine Hydro chloric Acid	24
5			Calciumphosphoryl choline chloride	100
	Total	200.2	Total	448

(xvi) Following products will be manufactured:

The Committee examined the certified compliance status report of Ministry's Regional Office, issued vide letter no. EP/2.1/668/KAR/5538 dated 2.07.2014, to the conditions of the earlier environmental clearance letter no. J-11011/1157/ 2007-IA.II(I) dated 29.04.2009. The EAC found the report satisfactory.

The EAC thereafter deliberated on the issues raised during the Public Hearing / Public Consultation meeting conducted by the Karnataka State Pollution Control Board on 30th May, 2016 at plant site located at Toremavu Village, Nanjangud Taluk, Mysore District. The concerns were raised regarding employment opportunities for local publics, APC measures, solid waste disposal, and

drinking water facilities for nearby villages. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee, on the basis of the information provided and presentation made recommended the project for environmental clearance and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. Cyclone separator followed by bag filter and the stack of adequate height shall be provided to Briquettes fired boiler.
- ii. Scrubber shall be provided to control process emissions viz. HCl, ammonia and SO₂. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iii. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB. Odour management plan shall be implemented.
- iv. Wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS effluent stream will be sent to multiple effect evaporator (MEE) followed by Agitated thin film drier (ATFD). Low TDS effluent stream will be treated in biological treatment unit followed by RO. RO reject will be sent to MEE. No effluent will be discharged outside the plant premises.
- v. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- vi. As proposed, the evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to TSDF. Fly ash will be disposed through authorized recycler. Used oil will be sent to SPCB authorized Recyclers/re-processor.
- vii. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- viii. Fly ash shall be stored separately as per CPCB guidelines so that it shall 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 shall be avoided.
- ix. Solvent management shall be as follows :
 - Reactor shall be connected to chilled brine condenser system
 - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
 - Solvents shall be stored in a separate space specified with all safety measures.
 - Proper earthing shall be provided in all the electrical equipment wherever solvent handling

is done.

- Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- x. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xi. All the issues raised during the Public Hearing/consultation meeting held on 30th May, 2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESR) 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 Bangalore. The R.O. Plant shall be installed in nearby village to ensure the supply of potable drinking water and regular maintenance of the R.O. plant will be owned by the Project Authorities.
- xiii. As proposed, green belt of 19488.55 m² (33%) shall be developed within plant premises with at least 10 meter wide green belt of perennial trees on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation.
- xiv. No ground water will be used.
- xv. PP will submit an application for name change from Arvee Chem Pharma to M/s Sequent Scientific Ltd.

16.3.32 Changeover of feed stock/fuel from Naptha to Mixed feed stock (Natural gas and Naptha) at Muthiahpuram village, Tuticorin, Tamilnadu by M/s Southern Petrochemical Industries Corporation Ltd.- [F. No. J-11011/124/2015-IAII(I); Online proposal no. IA/TN/IND2/57344/2014] – Environmental Clearance

The project proponent and their consultant (M/s EQMS India Pvt. Ltd) gave a detailed presentation on the salient features of the project and informed that:

- (i) M/s Southern Petrochemical Industries Corporation Ltd. has Proposed Changeover of feed stock and fuel from Naptha to Mixed feed stock (Natural gas and Naptha) at Muthiahpuram village, Tuticorin, Tamil Nadu.
- (ii) The Terms of References (TORs) awarded in the 40th Meeting of the Expert Appraisal Committee (Industry -2) held during 18th – 19th May, 2015 for preparation of EIA-EMP report. The official Terms of Reference were accorded by the Ministry on 30th June, 2015 with exemption from public consultation as per provisions under para 7 (ii) of the EIA Notification, 2006.
- (iii) All Chemical Fertilizers industries are listed at S.N. 5(a) under category 'A' and appraised at central level.
- (iv) Total plot area of exiting unit is 4,61,341 sq. m ,out of which 1,43,536 sq. m (32.9%) earmarked for greenbelt.
- (v) The total project cost is Rs. 96 Crores .Cost earmarked for environmental protection measure

Rs. 50.6 Crores and recurring cost per annum is Rs 11.735 crore.

- (vi) No national park, wildlife sanctuaries, Reserve forest, water body located in 10 km radius of the project site.
- (vii) The ambient air quality monitoring was carried out at 8 locations during April, 2015 June 2015 and submitted baseline data indicates that ranges of concentrations of PM_{10} (48 µg/m³ 87.1 µg/m³), $PM_{2.5}$ (21 µg/m³ 43 µg/m³), SO_2 (5 ug/m³–19.5 ug/m³) , NOx (7.5 µg/m³–30 µg/m³), CO (0.01 µg/m³–0.95 µg/m³) and NH_3 (0 to 110.9 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 5.1 µg/m³, 17.1 µg/m³ and 7.55 µg/m³ with respect to SPM, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).
- (viii) Existing site has 110 KVA Electrical Sub Station Connected with 230 KVA Auto substation of Tamil Nadu Electric Board. Existing Urea plant is getting the electric power from Tamil Nadu Electric Board. Existing Urea Plant has 18.4 MWH Captive power plant. DG Set of capacity 2760 KVA will be used as stand by.
- (ix) Steam requirement will be met from two existing Oil/Natural gas fired boilers of capacity 90 Tons/hr and 1 additional boiler of capacity 120 Tons/hr
- (x) Fresh water requirement of the proposed project is 15186 KLD which will be sourced from Tamil Nadu Water Supply and Drainage Board.

The EAC critically examined the proposal and found that M/s Southern Petrochemical Industries Corp. Ltd. (SPIC) vide letter dated 09/12/2016 submitted that the present proposal does not involves:

- i. Change in Urea production capacity
- ii. Chane in area of the existing project.
- iii. Change in Water requirement
- iv. Change in power requirement
- v. Change in captive power generation from existing limit.
- vi. Change in effluent generation/waste water generation and other emissions.

The EAC noted that the project has been granted Environmental Clearance vide latter no. J-11011/171/2007-IA.II (I) dated 5th March, 2008. The PP have submitted the compliance status report for the conditions stipulated in the earlier Environmental Clearance vide letter no. S&E/E-23/15 dated 18/04/2016. The EAC deliberated on the compliance status report of the PP and found satisfactory. However, the EAC suggested the PP to submit the certified compliance status report from concerned Regional Office of the MoEF&CC.

The EAC decided to accept the modification for changing over of feed stock/fuel from Naptha to Mixed feed stock (Natural gas + Naptha) subject to compliance of the conditions stipulated in existing environmental clearance issued vide latter no. J-11011/171/2007-IA.II (I) dated 5th March, 2008.

16.3.33 Drilling of development wells (40 no.) and exploratory/Appraisal wells (5 no.) in the Kharsang Oil Field at District Changlang, Arunachal Pradesh by M/s Geo Enpro Petroleum- [F. No. J-11011/341/2014-IA.II (I); Online proposal No. IA/AR/IND2/28663/2015] - Environmental Clearance

Proposal was considered in 3rd EAC meeting held in 18-19th January, 2016, wherein the committee recommended the proposal for Environmental clearance subject to submission of stage-1 Forest Clearance. During presentation PP informed that Forest clearance has not received yet, therefore committee suggested to delist the proposal from the pending list of proposal till the stage-1 Forest clearance get submitted.

16.3.34 2 No. development wells (KSDA, KSDB), 2 No. Exploratory wells (KSAD, KSAE), Conversion of already drilled exploratory well into development wells (KSAB, KSAG) and construction of GGS and laying of pipeline from KSAC to Boraholla GGS, Kasomarigaon, Assam Asset, Assam- [F. No. J-11011/563/2011-IA-II; Online proposal No. IA/AS/IND2/27521/2012] - Environmental Clearance

The Member Secretary informed that the proposal was considered in 3rd EAC meeting held in 18-19th January, 2016, wherein the EAC recommended the proposal for grant of Environmental Clearance subject to submission of Stage-1 Forest Clearance. The PP during the presentation in the 3rd EAC meeting informed that the proposal was for Development/ Exploratory Wells, Group Gathering Station and pipeline laying from KSAC to Borholla GGS at Kasomarigaon, Assam. Kasomarigaon is 20 square kilometer area lying in the Gomariguri Block of Golaghat District, Assam. The Block is located in the South of River Brahmaputra in the Dhansiri watershed, close to Nagaland Hills. Two development wells ISK-KSDA and ISK-KSDB are proposed to be drilled in this Block. KSAB and KSAG which has already been drilled as exploratory wells will be converted to development wells. Another two exploratory cum development wells (KSAD and KSAE) are proposed to be drilled at two new locations. The proposed activities are located at Dayang reserve Forest where the forest lands are presently used for agricultural practices. It was reported that ONGC has already applied for the diversion of 9 hectares of Forest Land for constructing GGSKSAG and KSAB. Applications for the diversion of forest land for the new exploratory sites KSAD, KSAE and pipeline has been made. Land for drilling site of KSAC, KSAG and KSAB is available with ONGC. 2.25 hectare of land is required for each exploratory drill sites - KSAD and KSAE. Further 9 ha of land is required for construction of GGS. PP has not submitted the Stage-1 Forest Clearance till date.

During further deliberations in 16th EAC meeting the PP informed that they have forest clearance for development of wells at KSAC location and the wells located at KSDA, KSDB, and KSAG will be drilled from KSAC horizontally. The PP has submitted a copy of the forest clearance issued by the Ministry's North Eastern Regional Office at Shillong vide letter no. 3-AS B 035/2011-SHI/1609-11 dated 21.08.2012. The PP further requested for issuing the Environmental Clearance for the locations namely KSAC, KSDA, KSDB, and KSAG.

The PP also submitted that they want to drop the proposal for grant of Environmental Clearance

for the locations KSAD, KSAE and Group Gathering Station and Pipeline from KSAC to Boroholla GGS due to non availability of Forests Clearance.

The EAC also noted that the PP has conducted EIA study for all the proposed locations including the locations to which stage -1 forest clearance could not be obtained. In view of the importance of the project from Country's oil production/demand point of view and unusual delay being occurred due to pending stage-1 forest clearance the EAC recommended that the Ministry may consider the request made by the PP for issuing the environment clearance for the locations namely KSAC, KSDA, KSDB, and KSAG; whereas, the proposal for other locations namely KSAD, KSAE and Group Gathering Station and Pipeline from KSAC to Boroholla GGS may be considered as dropped due to non availability of Forests Clearance.

16.3.35 Development drilling of hydrocarbons at Khoraghat Extension ML Block by M/s ONGC -[F. No. J-11011/563/2011-IA II(I); Online proposal No. IA/AS/IND/24352/2011] - Environmental Clearance

Proposal was considered in 3rd EAC meeting held in 18-19th January, 2016, wherein the committee recommended the proposal for Environmental Clearance subject to submission of stage-1 Forest Clearance. During presentation PP informed that Forest clearance for the proposed project locations is in advanced stage and will be received from Forest Department shortly; therefore committee decided to defer the proposal till the stage-1 Forest clearance get submitted.

16.3.36 Pre-NELP Block AA-ONJ/2 (for Drilling of 9 Exploratory Wells) by M/s ONGC- [F. No. J-11011/91/2012-IA II(I)] - Environmental Clearance

The Member Secretary informed the Committee that the proposal was considered in 38th EAC meeting held during 20-21st April, 2015 and recommended for grant of environmental clearance subject to submission of stage- 1 forest clearance for the exploratory wells locations namely RBK-3, RTNG-1 and RTDN-2. The Ministry vide letter dated 15.06.2015 reminded the PP to expedite the submission of the forest clearance for the stated locations. However, Stage-I forest clearance has not been submitted by PP in the Ministry. The PP vide letter dated 23rd December, 2015 informed that the exploratory well location namely RBK-3 falls outside the forest land. The PP has submitted a copy of the letter no. B/35/6404 dated 05.2.2015 issued by Divisional Forest Officer, Cachar Division, Silchar; wherein the co-ordinates (LAT 24⁰39¹58.4836¹¹ LONG 92⁰49¹12.9029¹¹) mentioned are not matching with the co-ordinates () mentioned in the EIA report for the exploratory wells location RBK-3.

During presentation in the 16th EAC meeting the PP requested for issuing the environmental clearance for the Six (06) exploratory wells locations namely RBK-1, LBAA, RPAA, RLBK-1, RTDN-1and RBK-3 wherein the forest clearance issue is not involved. The EAC examined the proposal and facts present by the PP and observed that coordinates mentioned in the EIA/EMP report for RKB-3 are LAT 24⁰42'47.86" LONG 93⁰00'50.46"; whereas no such co-ordinates are mentioned in the letter issued by Division Forest Officer, Silchar. The PP need to submit a clarification in this regard.

The EAC after detailed deliberations recommended that considering the importance of the project for Country's oil production/demand and unusual delay being occurred due to pending stage-1 forest clearance Ministry may consider the request made by the PP for issuing the environment clearance for the locations namely RBK-1, LBAA, RPAA, RLBK-1, RTDN-1and RBK-3, wherein no forest clearance issue is involved.

16.3.37 Expansion of fertilizer plant at Plot No. 96, Sector A, Sirgitti Industrial Area, District Bilaspur, Chhattisgarh by M/s BEC Fertilizers - [F. No. J-11011/154/2015-IA-II(I)] - Environment Clearance

PP did not attend the meeting. The EAC decided to defer the proposal.

16.3.38 Expansion in our existing unit M/s. Cedar Decor Pvt Ltd. located at 65/p, At - Ankhol, Ta – Kadi, Dist – Mehsana, Gujarat by M/s Cedar Décor Pvt. Ltd.– [F. No. J-11011/203/2015-IA-II (I)] - Environmental Clearance

PP did not attend the meeting. The EAC decided to defer the proposal.

16.3.39 Installation of manufacturing facility technical grade pesticides and pesticide Specific Intermediates by Jubiliant Life Science Limited (Unit 3) at SEZ operated at plot no. 5, Vilayat GIDC, Taluka Vagra, District Bharuch, Gujarat by M/s Jubilant Infrastructure Limited – [F. No. J-11011/311/2014-IA II (I)]- Environmental Clearance

During presentation in 16^{th} EAC meeting held during $8^{\text{th}}-9^{\text{th}}$ December, 2016 the pp informed that Proposal was listed before EAC in its 8^{th} EAC meeting held during 26-27th May, 2016; however, PP did not attend the meeting. The EAC decided to defer the proposal. The PP also informed that the project was recommended for grant of TOR by the 26^{th} reconstituted EAC in its meeting held during $28^{\text{th}} - 29^{\text{th}}$ October, 2014 with public hearing; whereas due to typographical error in the TOR letter issued vide letter no. J-11011/311/2014-IA.II(I) dated 6^{th} January, 2015 from the Ministry it is mentioned that public hearing is exempted. Accordingly the PP has not conducted the public hearing yet.

The committee observed that the project is located in industrial estate but the industrial estate is private and not notified by the Government; hence, provisions under 7(i) III stage (3) (i) (b) of the EIA Notification, 2006 are not applicable to the project. The PP should have conduct public hearing as per provisions of the EIA Notification, 2006. The EAC directed the PP to apply a fresh for seeking TOR.

16.3.40 Proposed Capacity expansion (2400 MT/Annum to 10360 MT/Annum) for manufacturing of Synthetic Organic Chemicals at Plot No. 2405, C- 1/2407/1 & 2407/3, GIDC, Sarigam, Valsad, Gujarat by M/s Mac Industry - Environmental Clearance – [F. No. J-11011/312/2013 IA II I]

PP did not attend the meeting. The EAC decided to defer the proposal.

16.3.41 Proposed expansion unit of custom synthesis proudcts for pharma/drug Intermediates and specialty chemicals at Distt. Valsad, Gujarat by M/s Aarti Industries Ltd. – [F. No. J-11011/368/2012-IA-II(I)] - Environmental Clearance

During the 6th EAC meeting held during 30th March to 2nd April 2016, the Committee deliberated upon the certified compliance report dated 30.09.2015 issued by Regional Office, MoEF&CC, Bhopal. It has been reported by the RO, Bhopal that there was some construction done for the proposed expansion which was started without obtaining prior environmental clearance; hence, this case is of violation. The Committee, therefore, recommended for taking action under the provisions of Environment (Protection), Act, 1986 violating stipulation of EIA, Notification 2006.

During 16th EAC meeting the EAC examined the clarification given by the PP vide letter dated 03-12-2016 mentioning that the construction reported as violation in the report of MoEF, Bhopal is with reference to EC no. J-11011/710/2008-IA.II (I) dated 7th November, 2008. Hence it may not be treated as violation.

After careful examination and deliberation the committee suggested the PP to submit documentary evidence establishing that the construction, reported as a violation, was done as per EC no. J-11011/710/2008-IA.II (I) dated 7th November, 2008 and it is not the part of the present proposal for expansion under consideration of the ministry.

Therefore, the committee decided to defer the case till the desired information/document is submitted.

16.3.42 Proposed speciality chemicals plant at Plot No. 37/A, AKVNL, Industrial Area, Meghnagar, Dist. Jhabua, M. P by M/s Anjaniya Industries– [F. No. J-11011/369/2013-IA II(I)] - Environmental Clearance

PP did not attend the meeting. The EAC decided to defer the proposal.

16.3.43 Proposed speciality chemicals and pesticide plant at Plot no. E-362, GIDC Dahej-I, Taluka - Vagra, Dist. - Bharuch, Gujarat by M/s Hemani Intermediates Pvt. Ltd.- [F. No. J-11011/378/2013- IA II (I)] - Environmental Clearance

The proposal was considered in 44th EAC Meeting held during 20-21st July, 2015. The Committee sought additional information on following points:

- (i) One of the specific TOR was "A clarification from GPCB whether addition of this unit would be absorbed by Dahej-1". However, PP has not submitted the clarification. Copy of the recommendation of GPCB for the proposed project to be submitted.
- (ii) Details of measures to be taken while handling NaCN.
- (iii) Chlorine handling and management system to be provided.
- (iv) Clarification regarding notification of GIDC Dahej -1 to be obtained from Industry Department. The proposal was deferred for internal consideration till the desired

information is submitted through online.

The PP vide letter dated 10th September, 2016 has submitted the addl. Information.

The EAC examined the additional information submitted by the PP in its 13th meeting held during 26th -27th September, 2016 and observed that the GPCB vide letter no. GPCB/BRCH-B/CTE-256/ID- 44626/368882 dated 7th September, 2016 has recommended the project for manufacturing capacity of 900 MTPM against the proposal for 12900 MTPM. Therefore, the Committee suggested them to revise the EIA report for the manufacturing capacity 900 MTPM and submit through online portal for consideration. Presentation shall be given on revised proposal. The proposal was deferred till the desired information is submitted.

The Member Secretary informed the EAC that the PP has not submitted the revised EIA report as suggested by the EAC in its 13^{th} meeting held during $26^{\text{th}} \cdot 27^{\text{th}}$ September, 2016. The EAC suggested the PP to submit the revised EIA report as recommendation of the EAC within one month failing which the project would be delisted from the website.

16.3.44 Expansion of Sugar Plant Cane Crushing Capacity from 10,000 TCD to 15,000 TCD & Cogeneration Plant Power Generation Capacity from 45 MW TO 80 MW, Molasses Based Distillery Plant Capacity from 60 KLD TO 120 KLD, installation of 4.0 MW Cogeneration Power Plant Based on Spent wash incineration Boiler at Beerangaddi & Hunshyal P.G. Villages, Gokak Taluku, Belagavi District, Karnataka by M/s. Satish Sugars Limited - Environmental Clearance – [F. No. J-11011/341/2012-IA II (I)]

The PP made a presentation before the EAC and informed that:

- M/s Satish Sugars Limited is operating a Sugar plant of cane crushing capacity of 10000 TCD, cogeneration plant of 45 MW along with 60 KLD molasses based Distillery at Beerangaddi & Hunshyal P.G. villages, Sangankeri Yadwad road, Gokak Taluk, Belagavi District, Karnataka State. SSL has obtained Environmental Clearance for the existing capacity of sugar & cogeneration of 10000 TCD & 45 MW from SEIAA Karnataka vide letter No. SEIAA: 105: IND: 2008 dated December 17, 2009. SSL has obtained Environmental Clearance for the existing capacity of distillery of 60 KLD from MOEF vide letter No. J- 11011/335/2006-IA-II(I) dated September 05, 2007. Both the projects have been established and are in operation.
- ii. The present proposal is for increasing the sugar cane crushing capacity from 10000 TCD to 15000 TCD, Cogeneration of power from 45 MW to 80 MW & expansion of existing molasses based distillery from 60 KLD to 120 KLD to manufacture Rectified Spirit / Extra Neutral Alcohol / Ethanol & generation of 4 MW power from Spent Wash Incineration Boilers within the existing premise.
- iii. No additional land is required for Expansion of sugar, co-gen & distillery. SSL has an existing area of 159.30 Acres (64.498 Hectares) in Survey Nos. 366, 367, 368, 369, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 385, 389, 390 & 391 & parts there of Beerangaddi

Village and 85, 86/1+3/A, 86/1+3/B, 86/1+3/K, 86/2+4/A, 86/2+4/B, 86/2+4/K, 86/2+4/D, 88/1/ABK/2AB, 90/1A, 90/1B, 90/1K, 90/2A, 90/2B, 90/3, 90/4A, 90/4B, 90/4K, 98/1A, 98/1B, 98/1K, 98/2+3A, 98/2+3B, 98/4, 99/1, 99/2, 99/3, 99/4, 100/2, 100/3, 100/4, 101/1+2+3A, 101/4A, 101/4B, 101/5, 102/3+4A, 102/4B, 102/4K+5,104,109,119,120/1 & parts there of Hunshyal PG Village falling under the revenue limits of Gokak Taluku, District Belagavi, Karnataka State.

- iv. The existing buildings of Sugar, Cogeneration & distillery units are spread over an area of 48.66 acres (19.70 hectares). This includes the composting facilities of distillery, ETP for sugar & cogeneration units and utilities. Existing green belt area is being developed over an area of 49.90 acres (20.22 hectares). An area of 9.97 acres (4.036 hectares) is covered by road & pavements. Vacant area available with the unit is 50.733 acres (20.54 hectares). Proposed upgradation of the sugar cane crushing capacity from 10000 to 15000 TCD, expansion of Cogeneration of power from 45 MW to 80 MW & expansion of molasses based distillery from 60 KLD to 120 KLD shall be located in an area of 4.203 Acres within the vacant area of the existing premises.
- v. Additional area for green belt is not proposed. The balance area of 46.53 acres shall be vacant land.

The EAC deliberated on the proposal and observed that the PP has submitted latest Certified Compliance report. The committee found the CCR satisfactory. However, the EAC was not satisfied with the site lay out plan. The EAC suggested to submit revised lay out plan with clear-cut demarcation of 10 meter wide green belt on all sides along the periphery of the project area. Selection of plant species shall be as per the CPCB guidelines. The committee also suggested to elaborate details about effluent treatment system, water consumption, etc.

The EAC decided to defer the proposal till the additional information is submitted.

16.3.45 Expansion of distillery (60 KLPD to 90 KLPD), expansion of sugar plant (4500 TCD to 12000 TCD) and expansion of co-generation plant (24 MW to 54 MW) at Athani Dist Belgaum, Karnataka by M/s Athani Sugars Limited – [F. No. J-11011/373/2013-IA.II(I)]

The proposal was recommended for grant of Environmental clearance in 9th EAC meeting held during 27th-28th June, 2016. During processing of file in the Ministry it was observed that the compliance status report of R.O. dated 27.5.2016 shows non compliance of earlier EC conditions. According, a site visit was done by the Ministry Officer on date 16th October, 2016. It has been reported in the site report that out of Nine non complied points reported by RO following three points are yet to be complied with:

- 1. Bagasse is mounded openly and not covered
- 2. Internal roads not maintained
- 3. Drainage is not covered

The proposal was placed again before the EAC in its 16th meeting held during 8th -9th December, 2016.

Regarding the aforesaid non complied points the PP submitted the following clarification with photographs before the EAC:

- 1. Now the Bagasse is covered with tarpaulin.
- 2. Internal road maintenance is carried out regularly. Water sprinkling is done to suppress dust.
- 3. Storm water drainage line is now covered.

The Committee was satisfied with the response of PP and recommended to the Ministry to accord environmental clearance with conditions as made in 9th EAC meeting held during 27th-28th June, 2016.

16.3.46 Proposed expansion of distillery from 30 KLPD to 60 KLPD at Sainagar, Ranjani, Tal:- Kallam Dist. Osmanabad, Maharashtra by M/s Natural Sugar & Allied Industries Ltd. - Environmental Clearance – [F. No. J-11011/194/2012- IA ll (l)

The PP did not attend the meeting. The EAC decided to defer the proposal.

16.3.47 Proposed Bulk Drug and its manufacturing units (2800 TPA) at Plot No. SPA-503, RIICO Industrial Area, Bhiwadi, District - Alwar, Rajasthan by M/s Dalas Biotech Limited -Environmental Clearance – [F. No. J/11011/285/2014 IA II (I)]

The PP did not attend the meeting. The EAC decided to defer the proposal.

16.3.48 Proposed Bulk LPG Storage and Bottling facility at B37/pt to B43/pt, B50/pt, B51/pt, C30 to 41 etc. SIPCOT Industrial Growth Centre, Gangaikondan Village, Tirunelveli Taluk & District, Tamil Nadu by M/s Indian Oil Corporation Limited– [F. No. J-11011/129/2015-IA-II(I)] - Environmental Clearance

The Member Secretary informed the committee that the proposal was granted TOR vide letter no. J-11011/129/2015-IA-II(I) dated 15th September, 2015. It was further noted that the proposal is for post facto environmental clearance. A complaint was also received from Shri S.P. Muthuraman that the unit has already been constructed. In view of the fact vide letter no. J-11011/129/2015-IA.II (I) dated 30th October, 2015 the Ministry requested the concerned State Government to initiate credible action against the unit on the violation by invoking powers under Section 19 of the Environment (Protect), Act, 1986 for taking necessary legal action under Section 15 of the Act for the period for which the violation has taken place.

Mr. S.P. Muthuraman filed an application no. 193 of 2015 against the project. Hon'ble NGT (SZ) heard the plea of Mr. S.P. Muthuraman vide application no. 193 of 2015 against the project and directed to MOEF to examine and dispose the applications made by IOCL. The Hon'ble Tribunal vide its Order dated 27th January, 2016 directed as under

" it is well admitted by both sides that two applications, one for EC from the MoEF &CC and other for approval of Forest department after the clearance from National Board for Wildlife (NBWL) are

pending consideration. The 5th respondent filed an undertaking which can be seen in para 22 of the reply which read as follows:

"Respondent undertakes that the subject plant will be operated only after obtaining EC"

4. The above undertaking is to the effect that the activities of the proposed plant would be commissioned and commissioned only after obtaining EC. In appraisement of the above facts and circumstances, Tribunal is of the considered view that the Application can be disposed of recording above undertaking given by the 5th respondent. It is made clear that the 5th respondent shall not commission the project without obtaining EC from the 1st Respondent MoEF &CC and also clearance from the NBWL. It is for the MoEF &CC and NBWL to examine and dispose the applications made by the 5th respondent in accordance with law."

The proposal for Environmental clearance was considered in 4th EAC meeting held during 11-12th February, 2016. After deliberation, the Committee noted that project is being considered as per the NGT direction in response of application filed by the applicant. Further, it was noted that project involves violation under the provision of E(P), Act, 1986 and EIA Notification, 2006. The matter will be dealt as per the prevailing laws for dealing such cases. Since, the project is also required to obtain NBWL clearance, the proposal was deferred till the aforesaid information is submitted.

During 16^{th} EAC meeting held on $8^{th} - 9^{th}$ December, 2016 the proposal was again listed before EAC wherein after examination of the aforesaid facts it was recommended that the Ministry may take a view regarding consideration of the proposal by the EAC for grant of environmental clearance.

16.3.49 BMDE development well in Baramura Field, Tripura by M/s ONGC Ltd. - Environmental Clearance – [F. No. J -11011/313/2012-IA II (I)]

The proposal was considered in 3rd EAC meeting held during 18th -19th January, 2016 for grant of environmental clearance. The Committee noted that as per certified compliance report of the Regional Office at Shillong, Environmental Clearance has been accorded for exploratory drilling of one well viz. KUAD. However, It is noted that PA have already developed the well and has started commercial production without obtaining another prior clearance for development of well, which is treated as violation of specific condition No xvi. The matter will be taken up as per prevailing rules, dealing violation cases.

In view of the above recommendations the Ministry issued a show cause notice to the PP vide letter dated j-11011/313/2012-IA. II (I) dated 14.06.2016. The PP giving response to the show cause vide letter no. AGT/AM/C-02/AD-MOEF/2016 dated 11.07.2016 informed that no commercial production taken as far as well BMDE is concerned; at present drilling activity has not commenced for the well #BMDE.

Further, the PP produced a site visit report of Tripura State Pollution Control Board (TSPCB) dated 7.12.2016. It is mentioned in the report that Tripura State Pollution Control Board (TSPCB) visited the

site on 15th November, 2016. Before visiting the site, details of the well site was taken from the environment impact assessment report. During the visit, the TSPCB officials could reach only up to BRM-13 well site, which is the nearest spot to the Well #BMDE. There was no approach road to reach the actual well site. The spot is in forest area. The phographs of the site visit of BRM-13 have also been attached with the site visit report. In case any construction work, there must be approach road for the heavy drilling equipment, hence there was no visible evidence to show any construction at the site.

The committee noted the submissions made by the PP and examination of the site visit report of the Tripura State Pollution Control Board (TSPCB) dated 7.12.2016. the EAC accepted the above mentioned clarification with respect to violation as reported by the RO, MoEF&CC, Shillong.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Andhra Pradesh Pollution Control Board on 13th February, 2015 at project site. The concerns were raised regarding Drinking water supply, Electricity, Employment and medical facilities etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations the committee recommended the proposal for grant of environmental clearance subject compliance of following specific conditions along with the other environmental conditions:

- i) Forest Clearance to be obtained.
- ii) 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.
- iii) Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.
- iv) Approach road shall be made pucca to minimize generation of suspended dust.
- v) The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure shall be provided to DG sets and proper stack height shall be provided as per CPCB guidelines.
- vi) Total water requirement shall not exceed 28 m³/day/well and prior permission should be obtained from the Competent Authority.
- vii) 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.

- viii) Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for onshore disposal. The membership of common TSDF shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office.
- ix) No effluent/drilling mud/drill cutting shall be discharged/disposed off into nearby surface water bodies.
- x) Produced water shall be treated in ETP. Treated produced water shall be disposed off as per CPCB/MoEF guidelines.
- xi) Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.
- xii) 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.
- xiii) 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.
- xiv) 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.
- xv) 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.
- xvi) 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 its Regional Office at Bhopal.
- xvii) Blow Out Preventor (BOP) 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.

- xviii) Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- xix) 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.
- xx) All the commitments made to the public during public hearing/public consultation meeting held on 13th February, 2015 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xxi) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing Issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured accordingly in a time bound manner.
- xxii) Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- xxiii) Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office.
- xxiv) Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office.
- xxv)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.
- xxvi) Company shall have own Environment Management Cell having qualified persons with proper background.
- xxvii) Company shall prepare operating manual in respect of all activities. It shall cover all safety & environment related issues and system. 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.
- xxviii) On completion of drilling, the company has to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.

16.3.50 Field development for setting up of surface facilities, Group Gathering Station (GGS), development drilling and interconnecting pipeline between wells for Kathalchari Field Development in Block AA-ONN-2002/1, Tripura by M/s Jubilant Energy – [F. No. J-11011/248/2013-IAII(I)]

This Project has been earlier considered in 13th EAC held during 26th -27th September 2016 and the committee sought following additional information:

- i. As per EIA report, PP has not finalized the location of two wells out of four wells to be drilled. Therefore, coordinates of all the four wells to be firmed up and furnished.
- ii. At least 2.5 % of the total cost of the project should be earmarked towards the Enterprise social responsibility based need of surrounding villages and item-wise details along with time bound action plan should be prepared.

The proposal was again considered in the 16^{th} EAC meeting held during $8^{th} - 9^{th}$ December, 2016. During the presentation the PP informed that:

- i. Jubilant Geological & Geo-Physical team is reviewing the data to finalization of locations of two wells. The firm coordinates of the well locations will be submitted to EAC after agreement with GAIL (India) Ltd, Partner in the block.
- Jubilant has sent a communication to Directorate General of Hydrocarbons (DGH) seeking clarification about Enterprise Social Responsibility cost under the Production Sharing Contract (PSC). The details will be submitted for EAC consideration as DGH confirmation is received.

The committee noted the submissions made by PP regarding revision of CSR @2.5%, and directed the PP to strictly adhere with the recommendation made by the EAC and submit the detailed year-wise plan for implementation of the same in 5 years. The expenditure incurred on CSR Plan to be finalized after consultation with District Authority. Final co-ordinates of the well locations to be submitted for further consideration of the proposal.

The committee decided to defer the project till the information submitted online.

16.3.51 Residue up-gradation and distillate yield improvement project with 11.0 MMTPA Crude processing at Mathura Refinery by M/s Indian Oil Corporation Ltd. - Environmental Clearance - [F. No. J-11011/1100/2007-IA.II (I)]

The proposal has recommended by EAC in its 44th meeting held during $20^{th} - 21^{st}$ July, 2015; however, during processing of recommendations of the EAC in the Ministry it was decided to seek the comments of TTZ Authority on the proposed expansion; accordingly, vide letter no. J-11011/1100/2007- IA.II (I) dated 9th May, 2016 the Ministry requested the TTZ to provide the requisite comments.

PP informed the EAC during its 16th meeting held on 8th – 9th December, 2016 that this proposal is pending due to want of above information from TTZ. The PP further informed that they are continuously perusing the matter with the respective authorities of TTZ, the requisite information will be provided shortly.

The EAC in view of the above facts recommended to the Ministry that since EAC has already appraised the proposal from environmental perspective and recommended the project for grant of Environmental Clearance, the Ministry may take up the issue with the TTZ for obtaining their comments as required by the Ministry.

16.3.52 Proposed expansion of Agrochemicals, Fine chemicals and Biotech based co-generation plants and establishment, of Pharmaceutical units, coal based Co-generation plants and Chloralkali unit at Kesavaram,, Venkatanagaram, post, Payakaraopeta Mandal, Visakhapatnam District by Deccan Fine Chemicals (India) Pvt. Ltd. - Environmental Clearance

The project proponent and their consultant (M/s Team labs and consultants) gave a detailed presentation on the salient features of the project and informed that:

- i. The Draft Terms of References (TORs) awarded in the 17th Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 18th-19th March, 2014 for preparation of EIA-EMP report.
- ii. All Pesticide Manufacturing unit are listed at S.N. 5(b), all synthetic organic chemical manufacturing unit are listed at S. N. 5(f) and all Chlor Alkali Industry located outside the notified industrial estate are listed at at S.N. 4(d) under category 'A' and appraised at central level.
- iii. Ministry has issued Environmental Clearance vide letter no. J-11011/657/2007-IA-II(I) dated 26th December, 2007 to M/s Deccan Fine Chemicals (India) Pvt. Ltd., for Pesticide, fine chemicals and biotech based organic chemical manufacturing unit.
- iv. M/s Deccan Fine Chemicals (India) Pvt. Ltd. has Proposed expansion of Agrochemicals, Fine chemicals and Biotech based co-generation plants and establishment, of Pharmaceutical units, coal based Co-generation plants and Chloralkali unit at Kesavaram, Venkatanagaram, post, Payakaraopeta Mandal, Visakhapatnam District. The project involves following environmental sensitivities:-
 - Reserved forests –Vempadu RF is 5.5 km from project site.
 - Water bodies:- Tandava river is flowing at a distance of 1.2 Km from project site and Bay of Bengal is 2 Km away from project site.
- Existing land area is 40 Acres. Additional 190 Acre land will be required under proposed expansion, out of which 76 Acre area will be developed as green belt. Capital Cost of project is Rs.1200 crore. Cost earmarked for EMP is Rs 97.47 Crore and recurring cost per annum is Rs 15 crores. Following are the list of existing and proposed products:

Manufacturing Capacity – Before and After Expansion (Agro and Fine Chemicals)

S.No	Name of the Product	Capacity TPD			
		Permitted	After H	Expansion	
			Phase I*	Phase II	
1	2- Cumaranone	2.12	2.12	4.24	
2	Alaninester	0.91	1.27	1.27	
3	Amicarbazone	2.12	3.18	3.18	
4	Buprofezine	0.61	1.27	0.85	
5	Clethodium	2.42	5.09	3.39	
6	Daimuron	0.91	1.27	0.85	
7	DEMBB (2,6-Diethyl-4-methyl-	0.15			
	Bromobenzene)				
8	Difenconazole	0.76	4.24	8.48	
9	Fenbuconazole	0.30	1.70	1.70	
10	Flucarbazone	0.30	1.27	1.27	
11	Flumetralin	0.45	1.70	2.12	
12	Folpet	0.61	1.70	1.70	
13	Methoxy A A	0.61	2.12	2.55	
14	Metobromuron	0.38	1.70	1.70	
15	Myclobutanil	0.76	2.12	2.12	
16	N,N-dimethyl-4-nitro-2-	0.15			
	sulfanoyl benzamide				
17	Para Benzoquinone	1.82	4.24	4.24	
18	Pretillachlor	2.12	3.18	3.18	
19	Prodiamine	1.52	3.18	4.24	
20	Propiconazole	0.55	2.97	5.94	
21	Pyraflufin ethyl (ET-751)	0.18	0.64		
22	Pyridate	0.61	1.70	1.70	
23	Sulfentrazone	0.61	10.61		
24	Tacsifun	1.21	2.12	1.27	
25	Tebufenozide	0.15	4.24	8.48	
26	Tricyclazole	1.52	4.24	4.24	
27	Vulkalent –E	2.42	2.12	1.27	
	Total	26.25	70	70	

List of By-Products – Before and After Expansion (Agro and Fine Chemicals)

Name of the	Stage	Name of the By-	Capacity (TPD)		D)
Product		Product	Permitted After Expan		pansion
				Phase I	Phase
					Π
Pyraflufin Ethyl (ET-	V	Sodium Bisulphate	16.4	57.40	
751)		(30%)			

	II	Sodium Bisulphite		0.67	
		(30%)			
Tacsifun	Ι	Sodium Bisulphite		3.40	2.04
		(30%)			
Sulfentrazone	IV	Spent Acid		168	
		containing			
		Sulfuric acid (60%)			
From Scrubber	HCl So	lution (20%)	14.20	37.67	21.24

Manufacturing Capacity – API's

S.No	Name of the Product	Capacity (TPD)	
		Phase I	Phase II
1	Atorvastatin Calcium	2.0	2.0
2	Candesartan Cilexetil	1.0	1.0
3	Cinitapride Tartrate	0.5	0.5
4	Clopidogrel Bisulphate	1.0	1.0
5	Ketorolac Trimethamine	0.5	0.5
6	Levocetirizine Dihydrochloride	0.5	0.5
7	Terbinafine Hydrochloride	1.0	1.0
8	Valsartan	1.0	1.0
9	Vardenafil HCl Trihydrate	1.0	1.0
10	Voriconazole	0.5	0.5
11	Zafirlukast	0.5	0.5
12	Ziprasidone Hydrochloride	0.5	0.5
	Total	10.0	10.0

<u>List of By-Products – API's</u>

Name of the Product	Stage	Stage Name of the By-Product Capacity		ity (TPD)
			Phase I	Phase II
Candesartan Cilexetil	IV	Tert-Butyl Carbonchloridate	0.51	0.51
V Stannic Chloride		Stannic Chloride	0.83	0.83
	VI	VI Tributyl Tinchloride		0.92
	IX	Trityl Chloride	0.46	0.46
Clopidogrel Bisulphate	VIII	Camphor Sulfonic Acid	0.55	0.55
Valsartan	V	Tributyltin Chloride	0.93	0.93
From Scrubbers	HCl Solution (20%)		12.3	12.3

vi. Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March, 2014 – June 2014 and submitted baseline data indicates that ranges of concentrations of PM_{10} (19 µg/m³ – 55 µg/m³), $PM_{2.5}$ (11 µg/m³ – 27 µg/m³), SO_2 (7 ug/m³ –

14 ug/m3) and NOx (8 μ g/m³–17 μ g/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.09 μ g/m³, 0.44 μ g/m³, 7.62 μ g/m³ and 8.33 μ g/m³ with respect to PM₁₀, PM_{2.5}, SO₂ and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

- vii. The total power requirement will be met from co-generation power plant and back up DG sets of capacity 20 x 2500 (Phase I: 10 x 2500 and Phase II: 10 x 2500) proposed in addition to existing 2 x 2000 and 4 x 1000 KVA.
- viii. Coal will be used as fuel for proposed 3 x 160 TPH, 1 x 80 TPH, 2 x 75 TPH boilers, 10 x 3 Million K.Cal/hr thermic fluid heater and existing 1 x 20 TPH coal fired boiler and 1 x 1.5 Million K.Cal/hr. Consumption of coal is 108 MT/hr.The sources of air pollution from the plant are from proposed coal fired boilers, thermic fluid heaters and standby DG sets. The utilities are provided with provided with stack height based on CPCB formulae, in addition to Electrostatic precipitators and Bag filters proposed air pollution control equipment.
 - ix. Gaseous emissions from process are Ammonia, Hydrogen Bromide, Hydrogen Chloride, Hydrogen Sulfide, Sulfur Dioxide, Sulfur Trioxide, Carbon Dioxide, Nitrogen, Oxygen and Hydrogen. Ammonia, Hydrogen chloride, Hydrogen Sulfide, Sulfur Dioxide and Sulfur Trioxide gases will be sent to scrubbers in series. Hydrogen bromide gas will be sent to scrubbers and the resultant effluent is sent to bromine recovery plant.
 - x. Scrubber will be provided to Chlor-alkali plant. Tail gas vents will be connected to a Venturi scrubber and the lean acid formed will be used for absorption of Hydrogen chloride gas in absorber.
 - xi. The total fresh water requirement will be 24.37 MLD (Phase I : 10.07 MLD and Phase II: 14.30 MLD). The required water to be drawn from desalination plant using sea water through pipeline as input with a capacity of 33.567 MLD for Phase I and 47.677 MLD for Phase II. Andhra Pradesh Coastal Zone Management Authority vide letter no. 004/CZMA/2016 dated 17.10.2016 recommended to the MoEF&CC for grant of CRZ clearance in terms of provisions under paragraph 3. (v) and 4 (ii) (d) of CRZ Notification, 2011. The SCZMA has recommended that the corridor proposed for the pipeline is traversing through CRZ area which is classified as CRZ-III and CRZ-I(B), CRZ-IV(A) and CRZ-IV(B).
- Effluents will be segregated as low TDS and high TDS stream . High COD/TDS stream in a stripper followed by multiple effect evaporator (MEE), and agitated thin film dryer (ATFD). The condensate from stripper is sent to cement plants for co-incineration, while the condensate from MEE and ATFD is mixed with low TDS/COD effluents to be treated in biological system. After treatment waste water will be discharged to the sea through pipeline.
- xiii. The salts from ATFD will be sent to TSDF for disposal .The stripper distillate, process residue and solvent residue will sent to cement plants for co-incineration based on acceptability. The evaporation salts and ETP sludge will be sent to TSDF. Waste oil and used batteries from the DG sets will be sent to authorized recyclers.

The Committee discussed the certified compliance report dated 28th March, 2013 of the RO (Southern Zone) Chennai and found satisfactory. The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Andhra Pradesh Pollution Control Board on 15th July, 2016 at project site. The concerns were raised regarding local employment,

Drinking water, infrastructure to the local schools, medical facilities air pollution control measures, development activities etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report. The committee noted that the sea water to be drawn through pipeline for proposed desalination plant which attracts provisions of CRZ Notification, 2011. The Member Secretary informed that such proposals, where CRZ clearance as well as environmental clearance both required, are considered for grant of Environmental clearance in terms of Office Memorandum no. J-17011/18/96-IA.III dated 19th January, 2015 which mandates the obtaining of comments of CRZ Division in the Ministry.

After examining the facts, the EAC on the basis of the information provided and presentation made by the PAs, recommended the project for environmental clearance. It was also recommended to the Ministry that requisite comments of the CRZ Division of the Ministry to be obtained and incorporated suitably in final order of the environmental clearance. The EAC stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. Electrostatic precipitators and Bag filters and the stack of adequate height shall be provided to Coal fired boilers and Thermic fluid heaters.
- ii. Gaseous emissions from process are Ammonia, Hydrogen Bromide, Hydrogen Chloride, Hydrogen Sulfide, Sulfur Dioxide, Sulfur Trioxide, Carbon Dioxide, Nitrogen, Oxygen and Hydrogen. Ammonia, Hydrogen chloride, Hydrogen Sulfide, Sulfur Dioxide and Sulfur Trioxide gases shall be sent to scrubbers in series. Hydrogen bromide gas shall be sent to scrubbers and the resultant effluent shall sent to bromine recovery plant.
- iii. Scrubber shall be provided to Chlor-alkali plant. Tail gas vents shall be connected to a Venturi scrubber and the lean acid formed will be used for absorption of Hydrogen chloride gas in absorber.
- iv. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB.
- v. Odour management plan shall be implemented.
- vi. Total fresh water requirement from sea shall not exceed 33.567 MLD for Phase I and 47.677 MLD for Phase II and prior permission shall be obtained from the concerned authority.
- vii. Effluents shall be segregated as low TDS and high TDS stream . High COD/TDS stream in a stripper followed by multiple effect evaporator (MEE), and agitated thin film dryer (ATFD). The condensate from stripper is sent to cement plants for co-incineration, while the condensate from MEE and ATFD is mixed with low TDS/COD effluents to be treated in biological system. After treatment waste water will be discharged to the sea through pipeline.
- viii. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
 - ix. The salts from ATFD will be sent to TSDF for disposal .The stripper distillate, process residue and solvent residue will sent to cement plants for co-incineration based on acceptability. The evaporation salts and ETP sludge will be sent to TSDF. Waste oil and used batteries from the DG sets will be sent to authorized recyclers
 - x. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules,

2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.

- xi. Fly ash shall be stored separately as per CPCB guidelines so that it shall 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 shall be avoided.
- xii. Solvent management shall be as follows :
 - Reactor shall be connected to chilled brine condenser system
 - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
 - Solvents shall be stored in a separate space specified with all safety measures.
 - Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- xiii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xiv. All the issues raised during the Public Hearing/consultation meeting held on 15th July, 2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xv. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESR) 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.
- xvi. As proposed, green belt of 76 Acre shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation.
- xvii. Isolation of production of Pharma and agro product must be ensured under consultation with certified experts.

16.3.53 Expansion of Bulk Drugs & Intermediates Manufacturing Facility at Plot no 5, Phase-IV, GIDC, PANOLI, Bharuch, Gujarat by M/s Unique Chemicals (A Div of J B Chemicals & Pharma Ltd.) [F. No. J- 11011/323/2016-IA.II(I); IA/GJ/IND2/31211/2015]-Terms of Reference

The project authorities gave a detailed presentation on the salient features of the project and informed that:

- i. All the projects related to synthetic organic chemicals located inside the industrial estate are listed in para 5(f) of schedule of EIA Notification, 2006 covered under category 'B' categogy but due proposed site is located in Critically polluted areas as notified by the Central Pollution Control Board(CPCB) from time to time, will be treated as category 'A' and appraised at central level.
- ii. M/s Unique Chemicals (A Div of J B Chemicals & Pharma Ltd.) has proposed for Expansion of

Bulk Drugs & Intermediates Manufacturing Facility at Plot no 5, Phase-IV, GIDC, PANOLI, Bharuch, Gujarat. As per form 1, there is no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance.

- iii. Ministry has issued EC earlier vide letter J-11011/93/2007-IA II (I) dated 8th August, 2007.
 Public hearing was exempted under para 7 (i)III stage (3)(b) of EIA notification, 2006 being located GIDC, PANOLI Industrial area.
- iv. Existing plot area of the unit is 64233 m² of which greenbelt will be developed in the area of m². No additional land required for proposed expansion. Total Cost of the proposed project is Rs 45 crores,. Followings products will be manufactured:

S.N.	Name of Products	Capacity (M	Γ/Month)	Total
		Existing	Proposed	(Existing +
				Proposed
Ι	Total of Bulk drugs & Intermediates	78.02	211.98	290
1	Synthetic Active Pharmaceutical Ingredients & Intermediates (All sellable)	78.02	211.98	290
II	Total of By Products	350	995	1345

- v. The Existing Power requirement is 2500 KVA. This will be sufficient for capacity Enhancement. However if require additional power available from DGVCL. Natural gas of capacity 2500 SCM/Day will be used as fuel for Boiler and Thermopac. Alkali Water double packed tower will be used as air pollution control equipment for process emission.
- vi. Total water requirement after proposed expansion is 785 m3/day, out of which Fresh water requirement will be 525 m3/day. Existing fresh water requirement is 200 m³/day and additional fresh water requirement will be 325 m³/day which will be sourced from GIDC water supply.
- vii. Total Industrial waste water Generation after proposed expansion will be 400 KL/Day. Industrial waste water will be treated in waste water treatment plant. The waste water will be further treated in reverse osmosis plant, where waste water recovery will be performed. The permeate water from R-O plant will be used in utility & R-O rejection will be send for evaporation & Solid waste collected will be send to TSDF site. The unit is based on Z.L.D as there is no discharge outside the plant premises. Domestic waste water will be sent to septic tank followed by soak pit.
- viii. ETP Sludge will be sent to TSDF site. Distillation residue, Expired drugs and used charcoal will be incinerated at common incineration facility Used oil will be sold to authorised recyclers.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's web site) for preparation of

EIA-EMP report:

A. Specific TOR:

- 1. Details on solvents to be used, measures for solvent recovery and for emissions control.
- 2. Details of process emissions from the proposed unit and its arrangement to control.
- 3. Ambient air quality data should include VOC, etc.,
- 4. Work zone monitoring arrangements for hazardous chemicals.
- 5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
- 6. Action plan for odour control to be submitted.
- 7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
- 8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
- 9. Action plan for utilization of MEE/dryers salts.
- 10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
- 11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
- 12. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
- 13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
- 14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

- i. Public hearing is exempted as per para 7 (i)III stage (3)(b) of EIA notification, 2006 being located GIDC, PANOLI Industrial area.
- ii. Status of Critically polluted area.
- iii. Adequate Toposheet to be submitted.
- iv. Latest Certified Compliance report of existing EC to be submitted.

It was recommended that **'TORs' without Public Hearing** prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned 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.
