STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

SEAC- 2015/CR-86/TC-2
Environment department
Room No. 217, 2nd floor,
Mantralaya Annex,
Mumbai- 400 032.
Dated: 25 January, 2016

To,
M/s. Sudarshan Chemicals Industries Ltd
At- plot no 44, 44 part 45, 46 & 46 part,
MIDC Dhatav Roha
Raigad

Subject: Environment clearance for proposed expansion of pigment pesticide and intermediate manufacturing facility at plot no 44, 44 part 45, 46 & 46 part MIDC Dhatav Roha, Raigad by M/s. Sudarshanchem industries ltd.

Sir,

This has reference to your communication on the above mentioned subject. The proposal was considered as per the EIA Notification, 2006, by the State Level Expert Appraisal Committee-I, Maharashtra in its 108th meeting and decided to recommend the project for prior environmental clearance to SEIAA. Information submitted by you has been considered by State Level Environment Impact Assessment Authority in its 90th meeting.

2. It is noted that the proposal is considered by SEAC-I under screening category 5 (f), B1 & 1 (d), B1 as per EIA Notification 2006.

Brief Information of the project submitted by Project Proponent is as:

1	Name of project	Proposed expansion of Synthetic Organic Chemical Manufacturing facility by Sudarshan Chemicals Industries Ltd, Plot No. 46 MIDC Dhatav, Roha, Dist: Raigad
2	Project Proponent	Sudarshan Chemicals Industries Ltd.
3	Consultant	Aditya Environmental Service Pvt. Ltd.
5	New Project / Expansion in existing project/ Modernization/ Diversification in exiting project	Expansion of Pigment Manufacturing Facility in Existing Manufacturing Industry.
6	If expansion / Diversification, whether environmental clearance has been	Existing Pigment manufacturing Facility was established in 1974 hence NA while company had obtained Environmental Clearance for its Pesticide manufacturing facility as per the EIA notification 1994. No: (No. J. 11011/37/96-IA II dated 14th Feb 1997) and filing compliance regularly.

<table>
<tr><td></td><td>obtained for existing project (If yes, enclose a copy with compliance table)</td><td></td></tr>
<tr><td>7</td><td>Activity schedule in the EIA Notification</td><td>5(f)-B</td></tr>
<tr><td>8</td><td>Area Details</td><td>Total plot area (sq. m.): 337826 (Existing+ Proposed)
Built up area (Sq. m.): 121723.45 (Existing+ Proposed)</td></tr>
<tr><td>9</td><td>Name of the Notified Industrial area / MIDC area</td><td>MIDC Dhatav</td></tr>
<tr><td>10</td><td>TOR given by SEAC? (If yes then specify the meeting)</td><td>Yes. 80th SEAC-I meeting dated 30-31st May 2014</td></tr>
<tr><td>11</td><td>Estimated capital cost of the Project (including cost for land, building, plant and machinery separately)</td><td>Rs. 980 Crores</td></tr>
<tr><td>12</td><td>Location details of the project :</td><td>Latitude: 18° 25' 28.17"N
Longitude: 73° 09' 42.99"E
Location: MIDC Dhatav
Elevation above Mean Sea Level (meters): 20</td></tr>
<tr><td>13</td><td>Distance from Protected Areas / Critically Polluted areas / Eco-sensitive areas / inter-State boundaries</td><td>There is no notified Protected Areas / Critically Polluted areas / Eco-sensitive areas / inter-State boundaries upto 10 km distance.</td></tr>
<tr><td>14</td><td>Raw materials (including Process chemicals, catalysts, & additives).</td><td>
<table>
<tr><th>List of raw material to be used</th><th>Physical & chemical nature of raw material</th><th>Quantity (tons year in) full productio n capacity</th><th>Source of materials</th><th>Means of transportati on (source to storage site) with justificatio n</th></tr>
<tr><td>Acetic acid</td><td>Liquid</td><td>1656</td><td>Aarey drugs, Tarapur</td><td>By road</td></tr>
<tr><td>Sulphuric acid</td><td>Liquid</td><td>2187</td><td>Shree Pushkar, Lote</td><td>By road</td></tr>
<tr><td>Hydrochlori c acid</td><td>Liquid</td><td>1539</td><td>Amit internation al</td><td>By road</td></tr>
<tr><td>Calcium</td><td>Liquid</td><td>1557</td><td>Sameer</td><td>By road</td></tr>
</table>
</td></tr>
</table>

		chloride			chemicals	
		Caustic soda lye	Liquid	7163	Laxmi organic, Mahad	By road
		Isopropanol	Liquid	907	Sachin chemicals	By road
		Methanol	Liquid	3379	Jubiliant, Pune	By road
		Phosphoric acid	Liquid	221	Punjab chemicals Tarapur	By road
		Sod. Nitrite	Liquid	2920	B.h. enterprise	By road
		Dimethyl formamide	Liquid	283	Krishna solve chem	By road
		Dimethyl sulphate	Solid	115	Aarti industries Tarapur	By road
		Beta. Napthol	solid	1232	Emco dyestuff	By road
		Naphthol AS	Soild	304	Siena chemicals pvt. Ltd.	By road
		Ortho nitro aniline	Solid	67	Premier orgochem ind.pvt.ltd,	By road
		C-acid	Solid	528	Kangaroo industries	By road

15 Production details

Existing facility is manufacturing the following products:

S. N.	Product Name		Quantity (MT/A)
1.	Pigments		20088
2.	Intermediates for Pigments, Agro Chem. & Fine Chemicals		4824
3.	Pesticide Technical		5958
4.	Pesticide Formulation	Solid	1200
		Liquid	5000 KL/A

Proposed Manufacture of following products:

S. N.	Product Name	Quantity (MT/A)
1.	Pigments (Organic, Inorganic, Pearl, Pigment Preparation, Fluorescent, High Performance, HP Dyes & Intermediates)	30,480
	By-products	Quantity (MT/M)
i	Phosphoric acid (12- 15 %)	250
OR		

<table>
<tr><td></td><td></td><td>
<table>
<tr><td>i</td><td>Di-calcium Phosphate</td><td>400</td></tr>
<tr><td>ii</td><td>Recovered Pigment</td><td>6</td></tr>
<tr><td>2</td><td>Co- Generation plant</td><td>10 MW</td></tr>
</table>
</td></tr>
<tr><td>16</td><td>Process details / manufacturing details</td><td>As per EIA report submitted chapter 2</td></tr>
<tr><td>17</td><td>Rain Water Harvesting (RWH)</td><td>• Level of the Ground water table: NA
• Size and no of RWH tank(s) and Quantity: NA
• Location of the RWH tank(s): NA
• Size, nos of recharge pits and Quantity: NA
• Budgetary allocation (Capital cost and O&M cost): NA</td></tr>
<tr><td>18</td><td>Total Water Requirement</td><td>Total water requirement:
• Fresh water (CMD): 12,580 CMD (existing 6896 & proposed 5684)
• Source: MIDC Dhatav
• Recycled water (CMD): approx. 4000 cmd Mica treated eff
Use of the water:
• Process (CMD): 11260 (existing+ proposed)
• Cooling water (CMD): 351 (existing+ proposed)
• DM Water (CMD): --
• Dust Suppression (CMD): --
• Drinking (CMD): 288 (existing+ proposed)
• Green belt (CMD): 10 (existing+ proposed)
• Fire service (CMD): --
• Others (CMD): 671 (existing+ proposed)</td></tr>
<tr><td>19</td><td>Storm water drainage</td><td>• Natural water drainage pattern: NA
• quantity of storm water: NA
• Size of SWD: NA</td></tr>
<tr><td>20</td><td>Sewage generation and treatment</td><td>• Amount of sewage generation (CMD): 72 (existing+ proposed)
• Proposed treatment for the sewage: Treated in the existing ETP
• Capacity of the STP (CMD) (If applicable): NA</td></tr>
<tr><td>21</td><td>Effluent characteristic</td><td>Mica Effluent (Mica Water Recycle Plant)
<table>
<tr><th>Sr. No.</th><th>Parameters (pH, BOD, COD, heavy metal, etc)</th><th>Inlet effluent Charact eristic</th><th>Outlet effluent Characteristic</th><th>Effluent discharge standards (CPCB / MPCB)</th></tr>
<tr><td>1</td><td>B.O.D. (mg/lit)</td><td>0</td><td>0</td><td>100</td></tr>
<tr><td>2</td><td>C.O.D. (mg/lit)</td><td>80</td><td>20</td><td>250</td></tr>
<tr><td>3</td><td>Oil & Grease (mg/lit)</td><td>--</td><td><5</td><td>10</td></tr>
<tr><td>4</td><td>pH</td><td>6.5 to 8.5</td><td>6.5 to 8.5</td><td>6.5 to 8.5</td></tr>
<tr><td>5</td><td>Suspended Solids (mg/lit)</td><td>3336</td><td>10</td><td>100</td></tr>
</table>
</td></tr>
<tr><td></td><td></td><td>Combined Effluents from Pigments, Agrochemicals, Sewage and Utilities (Separate ETP)</td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><th>Sr. No.</th><th>Parameters (pH, BOD, COD, heavy metal, etc)</th><th>Inlet effluent Charact eristic</th><th>Outlet effluent Characteristic</th><th>Effluent discharge standards (CPCB / MPCB)</th></tr>
<tr><td>1</td><td>B.O.D. (mg/lit)</td><td>729</td><td>80</td><td>100</td></tr>
<tr><td>2</td><td>C.O.D. (mg/lit)</td><td>1122</td><td>230</td><td>250</td></tr>
<tr><td>3</td><td>Oil & Grease (mg/lit)</td><td>--</td><td><5</td><td>10</td></tr>
<tr><td>4</td><td>pH</td><td>6.5 to 8.5</td><td>6.5 to 8.5</td><td>6.5 to 8.5</td></tr>
<tr><td>5</td><td>Suspended Solids (mg/lit)</td><td>334</td><td>80</td><td>100</td></tr>
</table>
</td></tr>
<tr><td>22</td><td>ETP Details</td><td>

Amount of effluent generation (CMD) 3872 + 10732
Capacity of the ETP (CMD):4000 Mica Water Recycle Plant + 11,000 combined ETP
Amount of treated effluent recycled (CMD): 3801cmd from Mica Water recycle plant
Amount of water send to the CETP (CMD): 10703 cmd
Membership of the CETP (If require): If yes then attach the letter Enclosed Annexure I

</td></tr>
<tr><td>23</td><td>Note on ETP technology to be used</td><td>Mica Water Recycle Plant : Physico chemical treatment followed by NF/RO and reject to MEE
Combined ETP for other Effluents : Neutralization >Flash mixing > Flocculation> Equalization > Aeration > Secondary Clarifier</td></tr>
<tr><td>24</td><td>Disposal of the ETP sludge (If applicable)</td><td>CHWTSDF, Taloja</td></tr>
<tr><td>25</td><td>Solid waste Management</td><td>Solid Waste Generation
<table>
<tr><th>Sr No</th><th>Type of Waste</th><th>Quantity</th><th>UOM</th><th>Mode of Disposal</th></tr>
<tr><td>1</td><td>Boiler Ash</td><td>130</td><td>MTPD</td><td>to brick making units/landfill</td></tr>
<tr><td>2</td><td>Paper, Plastic, Seepages, Fiber drum</td><td>275</td><td>MTPA</td><td>Onsite incineration</td></tr>
<tr><td>3</td><td>Mica waste (dry)</td><td>3500</td><td>MTPA</td><td>to offsite recycling /CHWTSDF</td></tr>
<tr><td>4</td><td>Canteen waste</td><td>16</td><td>MTPA</td><td>Use in biogas plant/ compost</td></tr>
<tr><td>5</td><td>Rubber, Hand gloves, PVC shoes, Tarpaulin, Hose pipes</td><td>20</td><td>MTPA</td><td>Sale for offsite recycling/ CHWTSDF</td></tr>
<tr><td>6</td><td>Broken discarded glass</td><td>5</td><td>MTPA</td><td>Sale for offsite recycling/ CHWTSDF</td></tr>
<tr><td>7</td><td>Boiler soot</td><td>4</td><td>MTPA</td><td>Sale for offsite</td></tr>
</table>
</td></tr>
</table>

				recycling/ Landfill
8	Insulating material/ Thermocol	20	MTPA	Sale to authorized vendor/ CHWTSDF
9	Excess biomass from ETP (Dry)	100	MTP M	Use as bio fertilizer/ compost/ CHWTSDF/ Sale to other ETP
10	Iron scrap	800	MTPA	Sale to authorized vendor for offsite recycling
11	Plastic (Nonmetallic scrap)	300	MTPA	Sale for offsite recycling/ CHWTSDF
12	Paper	200	MTPA	Sale for offsite recycling/ CHWTSDF
13	Electric scrap	20	MTPA	Sale for offsite recycling/ CHWTSDF
14	Discarded Barrels	20000	No. PA	Sale after decontamination
15	Wooden scrap	300	MTPA	Sale for offsite recycling

Hazardous waste generation:

Sr No	Category	Type of Waste	Quantity	UOM	Mode of Disposal
1	5.1	Used/ Spent Oil	12	KLPA	CHWTSDF/ Sale to Authorized party approved by MOEF / CPCB/MPCB
2	15.2	Discarded Asbestos / AC sheets	10	MTPA	CHWTSDF
3	20.2	Spent Solvent	5500	MTPM	Recover & Reuse onsite OR sale to authorized recycler
4	20.3	Distillation residue	36	MTPA	CHWTSDF/ Incinerator
5	26.1	Process waste, sludge/residues from pigment manufacture	15	MTPA	CHWTSDF/ Sale to Authorized Recycler/ Manufacturer & Suppliers

6	29.1	Process Residue (waste salt, waste super cell)	40	MTP A	CHWTSDF/Incinerator
7	33.1	Decontamination residue	1	MTP A	CHWTSDF/ Incinerator
8	33.3	Discarded containers/ barrels	12000	Nos. PA	Sale to authorized party after decontamination
9	33.3	Discarded liners	37	MTP A	Sale to authorized party after decontamination /CHWTSDF
10	33.3	Fiber drums/ material	2	MTP A	CHWTSDF/ Incinerate plant
11	34.1	Flue gas cleaning residue	3	MTP A	CHWTSDF
12	34.2	Spent Ion Exchange residue	0.5	MTP A	CHWTSDF
13	34.3	Chemical sludge from waste water treatment	3500	MTP A	CHWTSDF
14		Solid waste from MEE	5600	MTP A	CHWTSDF
15	35.1	Filter Cloth (contaminated)	28	MTP A	Sale after decontamination for offsite recycling/ CHWTSDF
16	-	Used Batteries other than lead acid	400	KGP A	CHWTSDF/ Registered recycler/Dealer

If waste(s) contain any hazardous/toxic substance/ radioactive materials or heavy metals then provide quantity, disposal data and proposed precautionary measures: PPEs will be provided, separate segregated storage will be provided

What are the possibilities of recovery and recycling of wastes? As given above

Possible users of solid waste as given above

Method of disposal of solid waste as given above

26 Atmospheric Emissions (Flue gas characteristics SPM, SO2, NOx, CO, etc.)

Two new boilers 45 TPH each are proposed

Sr. No.	Pollutant	Source of Emission	Emission rate (kg/hr)	Concentration in flue gas (mg/Nm^3)
1	TPM	Boiler	5.52	150
2	SO_2	Boiler	142.4	3860

3	NOx	Boiler	53.4	1449
4	CO	Boiler	--	--
5	Other	--	--	--

For modelling purpose the emissions at maximum possible values as given above have been used assuming TPM @ 150 mg/NM^3. SO_2 based on 0.8% sulfur in coal

27 Stack emission Details: (All the stacks attached to process units, Boilers, captive power plant, D.G. Sets, Incinerator both for existing and proposed activity). Please indicate the specific section to which the stack is attached. e.g.: Process section, D. G. Set, Boiler, Power Plant, incinerator etc. Emission rate (kg/hr.) for each pollutant (SPM, SO_2, NO_x etc. should be specified

Existing stack details

Stack No.		1	2	3	5	4	6	7	8	9	10	11	12	13	14	20
		Boiler		Lead pigment			Gd calcination			Mica Air washer		Agrochem				
Stack	Attached to	9 & 29 TPH	15 & 28 TPH	Scrubber Tank (Lead pigment)	Lead dissolution pigment plant	Scrubber Tank (Inorganic pigment)	Plant-I	Plant-II	Plant-III	TTK-300162	TTK-300163	MCP Reactor	PMN Reactor	Incinerator	Chlorinator 2925	HF Ammonia Scrubber
	MOC	M.S	M.S	PVC/FRP	M.S	PVC/FRP	FRP	FRP	FRP	M.S	M.S	FRP	FRP	M.S	FRP	PP/FRP
	Ht. above GL (m)	45	45	20	20	20	20	20	20	15	15	25	25	35	25	20
	Diameter (m)	1.2	1.8	0.5	0.1	0.5	0.6	0.6	0.6	0.66	0.66	0.352	0.3	0.75	0.25	0.15
	Shape at top	Round	Round	Round	Round	Round	Round	Round	Round	Round	Round	Round	Round	Round	Round	Round
	Type of Fuel	FO/ Coal	Coal	-	-	-	LPG	LPG	NA	NA	NA	-	-	LDO	-	HSD
	Fuel consumption (kg/hr)	475	3150	-	-	-	2	2	NA	NA	NA	-	-	15	-	50
	Control equipment	Cyclone separator	ESP	Caustic water scrubber	Water scrubber	water scrubber	Caustic scrubber	Caustic scrubber	Caustic scrubber	Water scrubber	Water scrubber	Caustic scrubber	Water scrubber	5% Caustic venturi scrubber	Caustic & Water scrubber	Caustic scrubber
Flue gas	Temp (°C)	Not in Operation		168	42	44	68	69	Not in Operation	64	Ambient	Ambient	Not in Operation	74	156	Ambient	72
	Velocity (m/s)			7.1	5.42	6.42	5.4	6.54		4.92	5.46	5.92		4.38	4.68	5.78	5.6
	Total gas quantity (Nm^3/hr)			43,929	3,622	170	3,334	5,798		4,426	6,503	7,050		956	5,367	988	308
Parameter	SPM (mg/Nm^3)			71	NA	NA	NA	NIL		NIL	NIL	NIL		-	46	-	-
	SO_2 (kg/day)			497.2	NA	NA	NA	NIL		NIL	-	-		-	7.96	-	-
	NOx (mg/Nm^3)			40.8	NA	34.6	NA	36.5		28.2	-	-		-	28.5	-	-
	CO (mg/Nm^3)			32.8	-	-	-	-		-	-	-		-	29	-	-
	HCl (mg/Nm^3)			-	3.92	NA	2.54	-		-	1.76	1.52		5.4	0.97	-	-
	Cl2 (ppm)			-	-	-	-	-		-	-	-		0.48	N.D	2.2	-
	TOC (mg/Nm3)			-	-	-	-	-		-	-	-		-	38	-	-
	Ammonia (ppm)			-	-	-	-	-		-	-	-		-	-	-	956

Proposed Fuel Burning Stack Details:

Sr. No.	Description	Stack 1	Stack 2
1	Stack attached to	Boiler1	Boiler2
2	Capacity	45 TPH	45 TPH
3	Fuel fired	Coal	Coal
4	Fuel Consumption kg/hr	8900	8900
5	Material of construction of stack	M.S	M.S
6	Height in meters from Ground level	62	62
7	Stack ID at top (m)	1.2	1.2
8	Stack top Round / Rectangular	Round	Round
9	Gas quantity m^3/Hr	56000	56000
10	Flue gas temperature ^{0}C	180 MAX	180 MAX

			11	Exit velocity of the gas m/Sec	10	10	
			12	Total particulate Matter mg/Nm^3	38.1	38.1	
			13	SO_2 g/sec	39.56	39.56	
			14	NO_X g/sec	14.83	14.83	
			15	Nature of pollutants	TPM	TPM	
			16	Emission control system	Cyclone + ESP	Cyclone + ESP	

Emissions from Proposed Process Units

Sr. No	Plant Product	Process stage	Parameter	Control device
1	Azo pigment	Diazo preparation	HNO_2	Water scrubber
2	Isoindolinone	Chlorination	HCl	Caustic scrubber
		Amination	NH_3	Scrubber with water/ dilute sulfuric acid
3	Benz	Diazo preparation	HNO_2	Water scrubber
4	Intermediate	Acidification	HCl	Caustic scrubber
5	Mica	TiO_2 coating	HCl	Water scrubbing
6	Mixed Metal Oxide	Quenching, Powder packing	TPM	Bag filter

28 Emission Standard

Pollutants (SPM, SO_2, etc)	Emission Standard Limit	Proposed Limit	MPCB Consent
For fuel burning stacks			
TPM (mg/Nm^3)	150	150	150
SO_2 (mg/Nm^3)	2415	3860	3860
For process stacks			
TPM (mg/Nm^3)	150	150	150
SO_2 (Process) (ppm)	50	50	50
NOx (ppm)	50	50	50
HCl	20	20	20
NH_3 (ppm)	50	50	50

29 Ambient Air Quality Data

AAQ data after Proposed Expansion (Based on Modeling studies)

AAQM Location	SO_2 Net Impact (µg/cum)	NO_x Net Impact (µg/cum)	PM_{10} Net Impact (µg/cum)
Barsoli	15.95	17.3	68.65
Vishnu Nagar	17.15	11.7	71.4
Mahadev Wadi	13.2	15.0	62.85

		Standard	80	80	100

30 Details of Fuel to be used:

Proposed fuel consumption:

Sr. No.	Type of Fuel	Quantity	UOM
1	Coal	430	TPD
2	LDO	2	KLPD
4	LPG	200	KGPD
5	HSD	240	KLPA

31 Energy

Power supply:

- Existing power requirement: --
- Proposed power requirement: 10 MW

DG sets:

- Number and capacity DG sets to be used (existing and proposed) –
- Existing – 1100 KVA, 1150 KVA, 625 KVA & 250 KVA.
- Proposed – 250 KVA, 1000 KVA, 2 Nos. of 625 KVA

Details of the non-conventional renewable energy proposed to be used : Solar Power , Anaerobic digestor for canteen waste b

32 Green Belt Development

- Green belt area (Sq. m.): 57578.69
- Number and species of trees to be planted –Approx. 500 Nos. of trees of 17 Nos. of species
- Number, size, age and species of trees to be cut, trees to be transplanted

33 Details of Pollution control system

Sr. No.		Existing pollution control system	Proposed to be installed
1	Air	ESP, Dust collector, Scrubber, Cyclone separator	ESP, Dust collector, Scrubber, Cyclone separator
2	Water	ETP,	Mica Water Recycle plant and upgradation of existing ETP
3	Noise	Acoustic enclose, Silencer.	Acoustic enclosure, Silencer.
4	Solid Waste	Waste management system	Waste management system

34 Environmental Management plan Budgetary Allocation

Capital cost (With break up):

O&M cost (With break up):

Sr. No.		Recurring Cost per annum (Rs. In lakhs)	Capital cost (Rs. In Lakhs)
1	Air Pollution Control	50	2500
2	Water Pollution Control	800	2000
3	Noise Pollution	--	--

			Control		
		4	Environment Monitoring and Management	10	100
		5	Reclamation borrow/ mined area (If applicable)	--	--
		6	Occupational Health	25	50
		7	Green Belt	50	100
		8	Solid waste management	800	300
		9	Others (Pl. Specify)	400	--
			Total	2135	5050
35	EIA Submitted (If yes then submit the salient features)	Period of data collected: Winter 2013-14 Details of the primary data collection (i.e. location of the sample collection, number of visit, etc): AAQ at 6 locations Details of the secondary data collection (i.e. Source and year of data) : Potential hazard and mitigation measures : Odours due VOC handling, Mitigation measures given in chapter 4 Conclusion of the EIA study : impacts due to proposed project will be within manageable limits			
36	Public hearing report (If public hearing conducted then submit the salient features)	Date of the public hearing - NA Name of the news paper in which the advertisement appeared (Please attach the copy) Location of the public hearing Number of people attended the hearing Objection(s) / Suggestion(s) if any			
37	Air pollution, water pollution issues in the project area, If any	No Issues			

38. Storage of chemicals (inflammable /explosive/hazardous/toxic substances)

Sr, No.	Name	Number of Storages	Capacity (TPD)	Physical and Chemical Composition	Consumption (in TPD)	Maximum Quantity of storage at any point of time	Source of Supply	Means of Transportation
HPP	IBA ,fresh	1	76	Liquid	As per EIA report Table 2.5	76	As per EIA report Table 2.5	By Road
	IPA, fresh	1	76	Liquid		76		By Road
	HCl,31 %	1	198	Liquid		198		By Road
	IPA, Rec.	2	151	Liquid		151		By Road
	DMF, Rec.	2	20	Liquid		20		By Road
	DMF,	1	137	Liquid		137		By Road

	Fresh							
	TAA, Fresh	1	8	Liquid		8		By Road
	DMS, Fresh	1	15	Liquid		15		By Road
	H_3PO_4	1	89	Liquid		89		By Road
Mica	TOC	1	95	Liquid		95		By Road
	Liq. Ammonia	1	308	Liquid		308		By Road
	Caustic lye	1	227	Liquid		227		By Road
	$SnCl_2$	1	4	Solid		4		By Road
	$FeCl_3$	1	232	Solid		232		By Road
	HCl	1	20	Liquid		20		By Road
	FeSO4	1	265	Solid		265		By Road
Azo	Caustic	1	422	Solid		422		By Road
	$BaCl_2$	1	118	Solid		118		By Road
	Rosin	1	87	Solid		87		By Road
	$NaNO_2$	1	198	Solid		198		By Road
	HCl	2	327	Liquid		327		By Road
	HNO_3	1	199	Liquid		199		By Road
	$CaCl_2$	1	79	Solid		79		By Road
SRP	MeOH, Spent	3	301	Liquid		301		By Road
	IPA, Spent	2	301	Liquid		301		By Road
	DMF, Spent	2	64	Liquid		64		By Road
Common	Methanol	2	385	Liquid		385		By Road
	MeOH, Rec.	2	203	Liquid		203		By Road
	Toluene, Fresh	1	15	Liquid		15		By Road
	Xylene, Fresh	1	4	Liquid		4		By Road

3. The proposal has been considered by SEIAA in its 90th meeting & decided to accord environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions :

General Conditions for Pre- construction phase:-

(i) No additional land shall be used /acquired for any activity of the project without obtaining proper permission.

(ii) This environment clearance is issued subject to implement continuous online air monitoring.

(iii) For controlling fugitive natural dust, regular sprinkling of water & wind shields at appropriate distances in vulnerable areas of the plant shall be ensured.

(iv) Regular monitoring of the air quality, including SPM & SO2 levels both in work zone and ambient air shall be carried out in and around the power plant and records shall be maintained. The location of monitoring stations and frequency of monitoring shall be decided in consultation with Maharashtra Pollution Control Board (MPCB) & submit report accordingly to MPCB.

(v) Necessary arrangement shall be made to adequate safety and ventilation arrangement in furnace area.

(vi) Proper Housekeeping programmers shall be implemented.

(vii) In the event of the failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieve.

(viii) A stack of adequate height based on DG set capacity shall be provided for control and dispersion of pollutant from DG set.(If applicable)

(ix) A detailed scheme for rainwater harvesting shall be prepared and implemented to recharge ground water.

(x) Arrangement shall be made that effluent and storm water does not get mixed.

(xi) Periodic monitoring of ground water shall be undertaken and results analyzed to ascertain any change in the quality of water. Results shall be regularly submitted to the Maharashtra Pollution Control Board.

(xii) Noise level shall be maintained as per standards. For people working in the high noise area, requisite personal protective equipment like earplugs etc. shall be provided.

(xiii) The overall noise levels in and around the plant are shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures, etc. on all sources of noise generation. The ambient noise levels shall confirm to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989.

(xiv) Green belt shall be developed & maintained around the plant periphery. Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.

(xv) Adequate safety measures shall be provided to limit the risk zone within the plant boundary, in case of an accident. Leak detection devices shall also be installed at strategic places for early detection and warning.

(xvi) Occupational health surveillance of the workers shall be done on a regular basis and record maintained as per Factories Act.

(xvii) The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.

(xviii) The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Waste (Management and Handling) Rules, 2003 (amended). Authorization from the MPCB shall be obtained for collections/treatment/storage/disposal of hazardous wastes.

(xix) The company shall undertake following Waste Minimization Measures :

- Metering of quantities of active ingredients to minimize waste.
- Reuse of by- products from the process as raw materials or as raw material substitutes in other process.
- Maximizing Recoveries.
- Use of automated material transfer system to minimize spillage.

(xx) Regular mock drills for the on-site emergency management plan shall be carried out. Implementation of changes / improvements required, if any, in the on-site management plan shall be ensured.

(xxi) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.

(xxii) Transportation of ash will be through closed containers and all measures should be taken to prevent spilling of the ash.

(xxiii) Separate silos will be provided for collecting and storing bottom ash and fly ash.

(xxiv) Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should reported to the MPCB & this department

(xxv) The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at http://ec.maharashtra.gov.in

(xxvi) Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1st June & 1st December of each calendar year.

(xxvii) A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.

(xxviii)The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their 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 SPCB. The criteria pollutant levels namely; SPM, RSPM. SO_2, NOx (ambient levels as well as stack emissions) or critical sectorai parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

(xxix) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.

(xxx) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the

status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.

4. The environmental clearance is being issued without prejudice to the action initiated under EP Act or any court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision under EP Act or of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him, if any or action initiated under EP Act.

5. The Environment department reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the department or for that matter, for any other administrative reason.

6. **Validity of Environment Clearance**: The environmental clearance accorded shall be valid for a period of 7 years as per MoEF&CC Notification dated 29th April, 2015 to start of production operations.

7. In case of any deviation or alteration in the project proposed from those submitted to this department for clearance, a fresh reference should be made to the department to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.

8. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the public Liability Insurance Act, 1991 and its amendments.

9. Any appeal against this environmental clearance shall lie with the National Green Tribunal (Western Zone Bench, Pune), New Administrative Building, 1st Floor, D-, Wing, Opposite Council Hall, Pune, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

(Malini Shankar)
Member Secretary, SEIAA.

Copy to:

1. Shri. R. C. Joshi, IAS (Retd.), Chairman, SEIAA, Flat No. 26, Belvedere, Bhulabhai desai road, Breach candy, Mumbai- 400026.

2. Shri T. C. Benjamin, IAS (Retired), Chairman, SEAC-I, 602, PECAN, Marigold, Behind Gold Adlabs, Kalyani Nagar, Pune – 411014. .

3. Additional Secretary, MoEF & CC, Indira Paryavaran Bhavan, Jorbagh Road, Aliganj, New Delhi-110003.

4. Member Secretary, Maharashtra Pollution Control Board, with request to display a copy of the clearance.

5. The CCF, Regional Office, Ministry of Environment and Forest (Regional Office, Western Region, Kendriya Paryavaran Bhavan, Link Road No- 3, E-5, Ravi-Shankar Nagar, Bhopal- 462 016). (MP).

6. Regional Office, MPCB, Raigad.

7. Collector, Raigad

8. IA- Division, Monitoring Cell, MoEF & CC, Indira Paryavaran Bhavan, Jorbagh Road, Aliganj, New Delhi-110003.

9. Select file (TC-3)

(EC uploaded on 25/01/2016)