Government of Maharashtra

SEAC-2014/CR-80/TC-2
Environment department
Room No. 217, 2nd floor,
Mantralaya Annex,
Mumbai- 400 032.
Dated: 8th April, 2015

To,
M/s. Brilliant Polymers Pvt Ltd.
78 Jolly Marker Chambers II,
Nariman Point, Mumbai- 400 021.

Subject: Environment Clearnace for Proposed project for manufacture of Specialty Polymer .lab with pilot plant facility at plot no 15,16, 21/4 at MIDC, Morivali, Ambernath, Thane by M/s. Brilliant Polymers Pvt 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 97th 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 83rd meeting.

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

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

Name of project	Manufacture of 45,600 MT/annum Specialty Polymers based on polyester and polyurethane technology with fully equipped Technical Centre including an in-house R&D by M/s. Brilliant Polymers Pvt. Ltd.	
Project Proponent	Gaurav Talwar, Managing Director Brilliant Polymers Pvt. Ltd., 15, 16, 21/4 MIDC Morivali, Ambernath (West), Thane 421 505, Maharashtra, India.	
Consultant	M/s. Goldfinch Engineering Systems Pvt. Ltd.	
New project/expansion in existing project/modernization/ diversification in existing project	New project	
Activity schedule in the EIA Notification	5 (f) B	
Area Details	Details of use	Area in sq. meters
	Storage (Solvent, RM ,	921.82

	Warehouse)	
	Utility , Water Storage	238.272
	ETP & Haz. Waste Storage Area	82.658
	Plant-1 & 2	1169.29
	Parking Area	893.31
	Roads	2546.5
	Open Space including 692.4 m2 Green Belt 43.86 % of open area	1583.15
	Total Area	7435

Name of the Notified Industrial Area/ MIDC area	MIDC, Morivali, Ambernath (West), Maharashtra.
TOR given by SEAC? (If yes then specify the meeting)	No.
Estimated capital cost of the project (Including cost for land, building, plant and machinery separately)	Rs.47.15 Crores
Location details of the project:	• Latitude : 19^0 12' N • Longitude : 73°12' E • Location: MIDC, Morivali, Ambernath, Maharashtra. • Elevation above mean sea level meters : An altitude of 35 m above MSL
Distance from protected areas/ critically polluted areas/ Eco Sensitive area/ inter- state boundaries	Not in the vicinity.
Raw materials (including process chemicals, catalysts & additives)	Please refer table below
Production Details	Please refer below table

Sr. No.	Product Name	Monthly Capacity (MT/Month)
1.	Polyester Polymers	1,353
2.	Polyurethane Polymers	1,665
3.	Poly-isocynates	303
4.	Specialty Polymers	479
	Total	3,800
	Total polymers production (MT/Annum)	45,600

Process details / manufacturing details	Please refer prefeasibility report

<table>
<tr><td>Rain water Harvesting (RWH)</td><td>RWH proposed for office building Terrace / roof water collection and reuse. Area 1152.0 m^2. Av. Seasonal rainfall 2.422 m.
Rainwater collection expected about 25.11 m^3 @0.9 run off coefficient.</td></tr>
<tr><td>Total Water Requirement</td><td>385 M3 /day. Please refer table given below:</td></tr>
<tr><td>Storm water drainage</td><td>• Natural water drainage pattern : Proper and separate storm water drains will be provided as per natural slope</td></tr>
<tr><td>Sewage generation and treatment</td><td>• Amount of sewage generation (CMD): 6.0
• Proposed treatment for the sewage: The sewage will be treated in STP of capacity 10 CMD.</td></tr>
<tr><td>Effluent Characteristics</td><td>Please refer table below</td></tr>
<tr><td>ETP details</td><td>• Amount of effluent generation (CMD): 5.5 CMD
• Capacity of the ETP:6 CMD
• Amount of reaction water recycled after distillation: 6.0 CMD
• Amount of treated effluent reused for spraying on coal: 5.5 CMD
• Amount of water send to the CETP: ZLD Plant – No discharge
• Membership of CETP: Morivali ,Chikholi CETP</td></tr>
<tr><td>Note on ETP technology to be used</td><td>Water of reaction will be distilled to recover glycol as bottom residue and pure distilled water for Cooling water make up.
ETP consisting of Primary treatment. The outlet of ETP is pumped for spraying on coal as required or discharged to the CETP.</td></tr>
<tr><td>Disposal of The ETP sludge</td><td>ETP Sludge shall be disposed through Common Hazardous Waste treatment storage disposal facility, at MWML, Taloja.</td></tr>
<tr><td>Solid Waste Management</td><td>Please refer tables below:</td></tr>
<tr><td>Atmospheric Emissions (Flue gas characteristics SPM, SO_2, NO_X, CO etc.)</td><td>
<table>
<tr><th>Sr. No.</th><th>Pollutant</th><th>Source of Emission</th><th>Emission rate</th></tr>
<tr><td>1.</td><td>SPM</td><td>TFH / D.G. Set</td><td><150 mg/nm^3</td></tr>
<tr><td>2.</td><td>SO_2</td><td>TFH/ D.G. Set</td><td>< 432 kg/ day.</td></tr>
<tr><td>3.</td><td>NO_X</td><td>TFH/ D.G. Set</td><td><50 ppm</td></tr>
</table>
</td></tr>
<tr><td>Stacks emission Details</td><td>Please refer below table</td></tr>
</table>

Attached to	TFH	Boiler	DG
Capacity	2 Nos. (1.5 & 2.5 mn Kcal)	2 TPH	1,000 KVA (2 nos. of 500 KVA)
Fuel / Gas	Coal	Non-fired	HSD
Fuel qty kg / hr	Coal 1200 kg/hr	---	215 lit/hr
MOC	M.S.	M.S.	M.S.
Shape	Round	---	Round
Diameter	600 mm	---	130 mm
Stack Height	30 m & 35 m	---	4.5 m (each) above enclosure
Control equipment	Stack / cyclone & Dust collector. Bag Filter.	---	Stack, Acoustic enclosure.

Emission Standard

Pollutants	Emission standard limit Proposed Limit	MPCB Consent
SPM/ TPM	<150 mg/nm^3	<150 mg/nm^3
SO_2	<8 kg/ hr.	<8 kg/ hr.
NO_X	<50 ppm	<50 ppm

Ambient Air quality data

Pollutant	Permissible Standard	Proposed Concentration	Remarks
SPM (PM_{10})	100 µg/m^3	<100 µg/m^3	Shall be within limit
RPM ($PM_{2.5}$)	60 µg/m^3	<60 µg/m^3	Shall be within limit
SO_2	80 µg/m^3	<80 µg/m^3	Shall be within limit
NO_X	80 µg/m^3	<80 µg/m^3	Shall be within limit

Details of Fuel to be used:

Sr. No.	Fuel	Proposed Qtty.	Cal. value	Ash%	% Sulphur
1.	Coal	27.0 MT/day	5,500 Kcal /kg	10.0	1.0
2.	HSD	215 lit./hr	10,500 Kcal /kg	<0.01	0.5

Source of Fuel : From market/ out sider fuel companies
Mode of Transportation of fuel to site : By Road & through pipeline

Energy

Power Supply :

- Power requirement : 1,200 KW
- Sanctioned load : 1,000 KVA

DG sets: For Full back up in Emergency

<table>
<tr><td></td><td>

- Number and capacity DG sets to be used
Proposed- 1,000 KVA

Details of the non-conventional renewable energy proposed to be used:

Design & construction of building considering maximum use of natural light and ventilation.
2) In future we are planning to use solar power for toilet and street lights
</td></tr>
<tr><td>Green Belt Development</td><td>
Green belt area : 692.34sq.m
Number of species of trees & shrubs to be planted: 70

<table>
<tr><th>Sr. No.</th><th>Common Name</th><th>Scientific Name</th></tr>
<tr><td>1</td><td>Neem</td><td>Azaderachta indica</td></tr>
<tr><td>2</td><td>Shirish</td><td>Albizzia lebbeck</td></tr>
<tr><td>3</td><td>Phanshi</td><td>Artocarpus heterophyllus</td></tr>
<tr><td>4</td><td>Cadamba</td><td>Neolamarckia cadamba</td></tr>
<tr><td>5</td><td>Bahava</td><td>Cassia fistula</td></tr>
<tr><td>6</td><td>Bibba</td><td>Semecarpus anacardium</td></tr>
<tr><td>7</td><td>Taman</td><td>Lagerstroemia flos-reginae</td></tr>
<tr><td>8</td><td>Kala Shirish</td><td>Albizzia amara</td></tr>
<tr><td>9</td><td>Fish tail Palm</td><td>Caryota urens</td></tr>
<tr><td>10</td><td>Nandruk</td><td>Ficus retusa</td></tr>
<tr><td>11</td><td>Son Chafa</td><td>Michelia champaca</td></tr>
<tr><td>12</td><td>Satwin</td><td>Alstonia scholaris</td></tr>
<tr><td>13</td><td>Kate Sawar</td><td>Bobax ceiba</td></tr>
<tr><td>14</td><td>Lemon</td><td>Citrus sp.</td></tr>
<tr><td>15</td><td>Sita Ashok</td><td>Saraca asoka</td></tr>
<tr><td colspan="3">Total</td></tr>
</table>

</td></tr>
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<table>
<tr><td>Details of pollution control Systems:</td><td>
<table>
<tr><td>Sr. No.</td><td>Source</td><td>Pollution control system proposed to be installed</td></tr>
<tr><td>1</td><td>Air</td><td>By dispersal into atmosphere through chimney of adequate/ recommended height.</td></tr>
<tr><td>2</td><td>Water</td><td>Disullation of water of esterification reaction and recycle. ETP for treatment of effluent from utilities consisting of Primary and Tertiary treatment and recycle.</td></tr>
<tr><td>3</td><td>Noise</td><td>Acoustic enclosure for proposed D.G. of 1,000 KVA
(2no. 500 KVA)</td></tr>
<tr><td>4</td><td>Solid Waste</td><td>Hazardous waste will be disposed to CHWTSDF

Non-hazardous solid waste will be sold to private party.</td></tr>
</table>
</td></tr>
<tr><td>Environmental Management plan
Budgetary Allocation</td><td>
• Capital cost (with break up):
<table>
<tr><td>S. No.</td><td>Particulars</td><td>Cost in Rs. Crores</td></tr>
<tr><td>1.</td><td>Land</td><td>Rs. 5.15</td></tr>
<tr><td>2.</td><td>Building/ premises</td><td>Rs. 20.50</td></tr>
<tr><td>3.</td><td>Plant & Machinery and equipment's</td><td>Rs. 21.50</td></tr>
<tr><td></td><td>Total Cost</td><td>Rs. 47.15</td></tr>
</table>
• Proposed EMP cost Rs.145.9 lacs (with break up):
</td></tr>
</table>

3. The proposal has been considered by SEIAA in its 83rd 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 :

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

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

(iii) 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.

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

(v) Proper Housekeeping programmes shall be implemented.

(vi) 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.

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

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

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

(x) 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.

(xi) Leq of 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.

(xii) 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.

(xiii) 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.

(xiv) 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.

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

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

(xvii) 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.

(xviii) 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.

(xix) 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.

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

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

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

(xxiii) 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

(xxiv) 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

(xxv) 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.

(xxvi) 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.

(xxvii) 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.

(xxviii) 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.

(xxix) 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 5 years 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.

(Ajoy Mehta)
Principal Secretary,
Environment department &
MS, 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, Thane.
7. Collector, Thane
8. IA- Division, Monitoring Cell, MoEF & CC, Indira Paryavaran Bhavan, Jorbagh Road, Aliganj, New Delhi-110003.
9. Select file (TC-3)

(EC uploaded on 9/04/2015)