



Government of India  
Ministry of Environment, Forest and Climate Change  
(Issued by the State Environment Impact Assessment  
Authority(SEIAA), Maharashtra)

To,

The Vice President Works  
AMINES AND PLASTICIZERS LIMITED  
D-21/21 A, TTC Industrial Area, Turbhe, Navi Mumbai. -400705

**Subject:** Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/MH/IND3/70088/2019 dated 16 Dec 2021. The particulars of the environmental clearance granted to the project are as below.

- |  |   |
|--|---|
| 1. EC Identification No.                   | EC22B021MH162925  |
| 2. File No.                                | SIA/MH/IND3/70088/2019  |
| 3. Project Type                            | New   |
| 4. Category                                | B1  |
| 5. Project/Activity including Schedule No. | 5(f) Synthetic organic chemicals industry (dyes & dye intermediates; bulk   |
| 6. Name of Project                         | Expansion project in manufacturing capacity of Ethanalamines & Alkanolamines, Morpholines & Morpholine Oxide, Ethoxylates and Propoxylates from 1730 MT/M to 2730 |
| 7. Name of Company/Organization            | AMINES AND PLASTICIZERS LIMITED   |
| 8. Location of Project                     | Maharashtra   |
| 9. TOR Date                                | 10 Feb 2020   |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 21/04/2022

(e-signed)  
Manisha Patankar Mhaiskar  
Member Secretary  
SEIAA - (Maharashtra)

*Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.*

*This is a computer generated cover page.*

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**STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY**

No. SIA/MH/IND3/70088/2019  
Environment & Climate Change  
Department  
Room No. 217, 2<sup>nd</sup> Floor,  
Mantralaya, Mumbai- 400032.

To  
M/s. Amines and Plasticizers Ltd.,  
Plot No. D-21/21 A, TTC Industrial Area,  
Turbhe, Navi Mumbai, Dist. Thane

**Subject** : Environment Clearance for Expansion project in manufacturing capacity of Ethanol amines & Alkanolamines, Morpholines & Morpholine Oxide, Ethoxylates and Propoxylates from 1730 MT/M to 2730 at Plot No. D-21/21 A, TTC Industrial Area, Turbhe, Navi Mumbai, Dist. Thane by M/s. Amines and Plasticizers Ltd.

**Reference** : Application no. SIA/MH/IND3/70088/2019

This has reference to your communication on the above-mentioned subject. The proposal was considered by the SEAC-1 in its 205<sup>th</sup> & 215<sup>th</sup> meeting under screening category 5(f) as per EIA Notification, 2006 and recommend to SEIAA. Proposal then considered in 239<sup>th</sup> (Day-2) meeting of State Level Environment Impact Assessment Authority (SEIAA).

2. Brief Information of the project submitted by you is as below:-

<b>1.Name of Project</b>	Amines and Plasticizers Ltd.
<b>2.Type of institution</b>	Private
<b>3.Name of Project Proponent</b>	S. V. Badhe
<b>4.Name of Consultant</b>	Sadekar Enviro Engineers Pvt. Ltd.
<b>5.Type of project</b>	Synthetic Organic chemical Industry; 5 (f); Category B-1
<b>6.New project/expansion in existing project /modernization/diversification in existing project</b>	Expansion in existing project
<b>7.If expansion /diversification, whether environmental clearance has been obtained for existing project</b>	No.
<b>8.Location of the project</b>	D-21/21 A, TTC Industrial Area, Turbhe, Navi Mumbai,
<b>9.Taluka</b>	Thane
<b>10.Village</b>	Turbhe

<b>Correspondence Name:</b>	S. V. Badhe		
<b>Room Number:</b>	Plot No. D-21/21 A,		
<b>Floor:</b>	NA		
<b>Building Name:</b>	NA		
<b>Road/Street Name:</b>	TTC Industrial Area,		
<b>Locality:</b>	Turbhe,		
<b>City:</b>	Navi Mumbai		
<b>11. Whether in Corporation /Municipal / other area</b>	TTC Industrial Area, Turbhe		
<b>12. IOD/IOA/Concession/ Plan Approval Number</b>	NA		
	<b>IOD/IOA/Concession/Plan Approval Number: NA</b>		
	<b>Approved Built-up Area: 14983.621</b>		
<b>13. Note on the initiated work (If applicable)</b>	NA		
<b>14. LOI / NOC / IOD from MHADA/ Other approvals (If applicable)</b>	NA		
<b>15. Total Plot Area (sq. m.)</b>	73315		
<b>16. Deductions</b>	NA		
<b>17. Net Plot area</b>	NA		
<b>18 (a). Proposed Built-up Area (FSI &amp; Non-FSI)</b>	<b>a) FSI area (sq. m.): NA</b>		
	<b>b) Non FSI area (sq. m.): NA</b>		
	<b>c) Total BUA area (sq. m.): 14983.621</b>		
<b>18 (b). Approved Built up area as per DCR</b>	<b>Approved FSI area (sq. m.): N.A</b>		
	<b>Approved Non FSI area (sq. m.): N.A</b>		
	<b>Date of Approval: 03-07-2018</b>		
<b>19. Total ground coverage (m<sup>2</sup>)</b>	12325.474		
<b>20. Ground-coverage Percentage (%) (Note: Percentage of plot not open to sky)</b>	16.8		
<b>21. Estimated cost of the project</b>	235000000		
<b>22. Number of buildings &amp; its configuration</b>			
<b>Serial number</b>	<b>Building Name &amp; number</b>	<b>Number of floors</b>	<b>Height of the building (Mtrs)</b>
1	NA	NA	NA
<b>23. Number of</b>	NA		

<b>tenants and shops</b>				
<b>24.Number of expected residents /users</b>	NA			
<b>25.Tenant density per hectare</b>	NA			
<b>26.Height of the building(s)</b>				
<b>27.Right of way (Width of the road from the nearest fire station to the proposed building(s))</b>	6 m			
<b>28.Turning radius for easy access of fire tender movement from all around the building excluding the width for the plantation</b>	9 m			
<b>29.Existing structure (s) if any</b>	NA			
<b>30.Details of the demolition with disposal (If applicable)</b>	NA			
<b>31.Production Details</b>				
<b>Serial Number</b>	<b>Product</b>	<b>Existing (MT/M)</b>	<b>Proposed (MT/M)</b>	<b>Total (MT/M)</b>
	Ethanolamines/ Alkanolamines: 1. Monoethanolamine 2. Diethanolamine 3.			

1	<p>Triethanolamine -85% 4. Triethanol amine- Pure 5. N- Methylethanolam ine 6. Methyl Diethanolamine 7. Di Methyl Ethanolamine 8. Di Ethyl Ethanolamine 9. N- Ethylethanolamin e 10. Ethyl Diethanolamine 11. N-Propyl Ethanolamine 12. N- Propyl Diethanolamine 13. 2- Piperidinoethanol 14. Poly Ethanolamine</p>	980	750	1730
2	<p>Morpholines and Morpholine Oxide: 1. Morpholine 2. N- Methyl Morpholine 3. N- Methyl Morpholine Oxide-50% 4. N- Methyl Morpholine Oxide-60% 5. N-Ethyl Morpholine 6. N- Formyl Morpholine 7. Hydroxy Ethyl Morpholine 8. N-2- Hydroxy</p>	250	250	500

	Ethyl Pyrrolidine			
3	Ethoxylates & Propoxylates: 1. Triisopropanol amine solution 85 % 2. Di Ethyl isopropanolamine solution 85 % 3. Di Butyl Ethanolamine 4. 2 Phenoxy Ethanol 5. Tertiary Butyl Diethanolamine 6. Butyl Di Isopropanolamine 7. Polypropylene / Polyethylene Glycol 8. Block Co Polymers (Rheolase 4303, Rheolase, 2830, Rheolase 4822)	500	0	500
<b>32.Total Water Requirement</b>				
	<b>Source of water</b>	NA		
	<b>Fresh water (CMD):</b>	NA		
	<b>Recycled water - Flushing (CMD):</b>	NA		

<b>Dry season:</b>	<b>Recycled water - Gardening (CMD):</b>	NA
	<b>Swimming pool make up (Cum):</b>	NA
	<b>Total Water Requirement (CMD) :</b>	NA
	<b>Fire fighting - Underground water tank(CMD):</b>	NA
	<b>Fire fighting - Overhead water tank(CMD):</b>	NA
	<b>Excess treated water</b>	NA
<b>Wet season:</b>	<b>Source of water</b>	NA
	<b>Fresh water (CMD):</b>	NA
	<b>Recycled water - Flushing (CMD):</b>	NA
	<b>Recycled water - Gardening (CMD):</b>	NA
	<b>Swimming pool make up (Cum):</b>	NA
	<b>Total Water Requirement (CMD) :</b>	NA
	<b>Fire fighting - Underground water tank(CMD):</b>	NA
	<b>Fire fighting - Overhead water tank(CMD):</b>	NA
<b>Excess treated water</b>	NA	
<b>Details of Swimmingpool (If any)</b>	NA	

33.Details of Total water consumed									
Particulars	Consumption (CMD)			Loss (CMD)			Effluent (CMD)		
	Existing	Proposed	Total	Existing	Proposed	Total	Existing	Proposed	Total
Domestic	15	5	20	0	0	0	15	5	20
Industrial Process	80	40	120	20	10	30	60	30	90
Cooling tower & thermopack	125	150	275	105	125	230	20	25	45
Gardening	40	107	147	40	107	147	0	0	0
Fresh water requirement	260	302	562	165	242	407	95	60	155
<b>34.Rain Water Harvesting (RWH)</b>	<b>Level of the Ground water table:</b>		Pre Monsoon season: 0.5 to 14.6 mgbl; Post Monsoon season: 1.2 to 6.9 mgbl						
	<b>Size and no of RWH tank(s) and Quantity:</b>		Quantity of rainwater: 43.82 m3/day; Capacity of RWH Tank: 50 m3.						
	<b>Location of the RWH tank(s):</b>		Near to Workshop.						
	<b>Quantity of recharge pits:</b>		NA						
	<b>Size of recharge pits:</b>		NA						
	<b>Budgetary allocation (Capital cost) :</b>		500000						
	<b>Budgetary allocation (O &amp; M cost) :</b>		50000						
<b>Details of UGT tanks if any :</b>		Fire Fighting tank: 1100 m3 RWH Tank: 50 m3							
<b>35.Storm water drainage</b>	<b>Natural water drainage pattern:</b>		Slope is towards the entry gate no. 2, the Storm Water Drainage is designed accordingly.						
	<b>Quantity of storm water:</b>		5393.23 m3/hr						
	<b>Size of SWD:</b>		Top Width: 1.52 m, Bottom width: 0.91, Depth: 1.22 m						

<b>Sewage and Waste water</b>	<b>Sewage generation in KLD:</b>	20
	<b>STP technology:</b>	Sewage generated from daily activities after expansion will be treated in aeration tank of ETP.
	<b>Capacity of STP (CMD):</b>	NA
	<b>Location &amp; area of the STP:</b>	NA
	<b>Budgetary allocation (Capital cost):</b>	500000
	<b>Budgetary allocation (O &amp; M cost):</b>	5000
<b>6.Solid waste Management</b>		
<b>Waste generation in the Pre Construction and Construction phase:</b>	<b>Waste generation:</b>	137 Ton of construction waste will be generated.
	<b>Disposal of the construction waste debris:</b>	The inert recyclable wastes such as iron roads, wooden flanks, cardboards, plastic materials will be segregated and sold to recyclers. The excavated soil will be used for green belt/area development activities within premises.
<b>Waste generation in the operation Phase:</b>	<b>Dry waste:</b>	Paper Waste: 150 kg/month, Decontaminated empty barrels / containers: 2000 units/month
	<b>Wet waste:</b>	NA
	<b>Hazardous waste:</b>	Used/Spent oil: 2.1 T/A, Chemical sludge: 3.76 T/A, Oily sludge emulsion: 3.15 T/A, Process waste: 900 T/A, Spent ion exchange resins: 2 KL/A, Contaminated cotton rags or other cleaning materials 1.7 T/A
	<b>Biomedical waste (If applicable):</b>	1. Soiled Waste: Category-Yellow, Quantity- 1 T/A; 2. Expired Medicines: Category-Yellow, Quantity-0.5 T/A
	<b>STP Sludge (Dry sludge):</b>	NA
	<b>Others if any:</b>	E-Waste: 1. Personal Computers: Category-ITEW2, Quantity-0.1 T/A; 2. Personal Computing-Laptop computers: Category-ITEW, Quantity-0.1 T/A; 3. Printers including cartridges: Category-ITEW6, Quantity-0.5 T/A; 4. Telephones: Category-ITEW12, Quantity-0.5 T/A. Battery Waste: Lead batteries from DG Sets, UPS system: Quantity-0.2 T/A
	<b>Dry waste:</b>	MPCB authorized recyclers

<b>Mode of Disposal of waste:</b>	<b>Wet waste:</b>	NA
	<b>Hazardous waste:</b>	The recyclable/ reprocessible hazardous waste will be sent to authorised recyclers/co-processing and the rest will be disposed through CHWT SDF.
	<b>Biomedical waste (If applicable):</b>	Disposal to CBMWTF/MPCB authorised processor
	<b>STP Sludge (Dry sludge):</b>	N.A.
	<b>Others if any:</b>	E-waste- Sale to MPCB authorised recycler / returned to manufacturer or supplier; Battery Waste- Returned to supplier.
<b>Area requirement:</b>	<b>Location(s):</b>	Near ETP Area and near Morpholine plant
	<b>Area for the storage of waste &amp; other material:</b>	Area of 35 sq. m. will be demarcated for storage of hazardous waste.
	<b>Area for machinery:</b>	NA
<b>Budgetary allocation (Capital cost and O&amp;M cost):</b>	<b>Capital cost:</b>	NA
	<b>O &amp; M cost:</b>	15,00,000

### 37. Effluent Characteristics

Serial Number	Parameters	Unit	Inlet Effluent Characteristics	Outlet Effluent Characteristics	Effluent discharge standards (MPCB)
1	Total Suspended Solids	mg/l	136	27	100
2	pH	-	9.5	7.5	6.5 to 8.5
3	BOD (3 days 27°C)	mg/l	2722	12	30
4	COD	mg/l	7499	44	250
5	TDS	mg/l	2286	743	2100
6	Oil & Grease	mg/l	9.8	1.1	10
Amount of effluent generation (CMD):		155			
Capacity of the ETP:		240			
Amount of treated effluent recycled :		74.99			
Amount of water send to the CETP:		80			
Membership of CETP (if require):		Industry has membership of CETP Thane Belapur Association (11-81983).			

Note on ETP technology to be used	ETP of 240 CMD capacity will be provided with Primary, secondary and tertiary treatment and ultra-filtration shall be followed. The additional effluent due to proposed expansion will be reused within premises.
Disposal of the ETP sludge	After re-circulation, remaining sludge will be disposed to CHWTSDF.

### 8. Hazardous Waste Details

Serial Number	Description	Cat	UOM	Existing	Proposed	Total	Method of Disposal
1	Used/spend Oil	5.1	T/A	1.2	0.9	2.1	Sell to authorized recycler
2	Chemical sludge from waste water treatment	35.3	T/A	2.16	1.6	3.76	CHWTSDF/Co-processing
3	Oily sludge Emulsion	35.4	T/A	1.8	1.35	3.15	CHWTSDF
4	Process Waste (Sodium Sulphate)	36.1	T/A	90	0	90	CHWTSDF
5	Spent ion exchange Resin	35.2	KL/A	2	0	2	CHWTSDF
6	Contaminated cotton rags or other cleaning materials	33.2	T/A	1.2	0.5	1.7	CHWTSDF

### 39. Stacks emission Details

Serial Number	Section & units	Fuel Used with Quantity	Stack No.	Height from ground level (m)	Internal diameter (m)	Temp. of Exhaust Gases
1	Steam Boiler 10 T/Hr	PNG	1	30	1	170
2	Steam Boiler 12 T/Hr	PNG	1	30	1	170
3	Steam Boiler 10 T/Hr. (Standby: This will replace	PNG	1	30	1	170

	existing briquette boiler)					
4	Thermic Fluid Heater - 6 lakh Kcal/Hr. (To be discontinued)	PNG	2	30	0.4	180
5	Thermic Fluid Heater - 10 lakh Kcal/Hr. (To be discontinued)	PNG	2	30	0.4	180
6	Thermic Fluid Heater 1 lakh Kcal/Hr. (Standby; Existing LDO fired TFH will be converted into PNG fired TFH)	PNG	2	30	0.4	180
7	Thermic Fluid Heater 2 lakh Kcal/Hr. (Existing LDO fired TFH will be converted into PNG fired TFH)	PNG	2	30	0.4	180
8	Thermic Fluid Heater 12 lakh Kcal/Hr. (To be replaced by PNG fired TFH)	PNG	2	30	0.4	180
9	Thermic Fluid Heater 2.8 lakh Kcal/Hr. (To be discontinued)	LDO	3	6.63	1	180
10	Thermic Fluid Heater 2.8 lakh Kcal/Hr. (To be discontinued)	LDO	3	6.63	1	180
11	Thermic Fluid Heater 10 lakh Kcal/Hr. (Proposed-1)	PNG	4	30	0.4	180

12	Thermic Fluid Heater 10 lakh Kcal/Hr. (Proposed-2)	PNG	4	30	0.4	180
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**40.Details of Fuel to be used**

Serial Number	Type of Fuel	Existing	Proposed	Total
1	Briquette (kg/hr.)	2076	-2076	0
2	FO (kg/hr.)	800	-800	0
3	PNG (m3/hr.)	541	2658	3199
4	LDO (kg/hr.)	220	-220	0
5	Diesel (DG Set, kg/hr.)	120	120	240

41.Source of Fuel Local

42.Mode of Transportation of fuel to site PNG: By pipeline; Diesel: By road

<b>43.Green Belt Development</b>	<b>Total RG area :</b>	29326
	<b>No of trees to be cut:</b>	NA
	<b>Number of trees to be planted :</b>	325
	<b>List of proposed native trees :</b>	NA
	<b>Timeline for completion of plantation :</b>	Within 1 years after the receipt of Environment Clearance.

**44.Number and list of trees species to be planted in the ground**

Serial Number	Name of the plant	Common Name	Quantity	Characteristics & ecological importance
1	Heterophragma quadriloculare	Waras	17	A important native species in India. A large deciduous tree which is noticeably attractive when in bloom
2	Oroxylum indicum	Tetu	17	Oroxylum indicum is a species of flowering plant belonging to the monotypic genus Oroxylum and the family Bignoniaceae, and is commonly called midnight horror, oroxylum Indian trumpet flower, broken bones, Indian caper, or tree of Damocles. It can reach a

				height of 18 metres (59 ft). Various segments of the tree are used in traditional medicine
3	<i>Schleichera oleosa</i>	Kusum	17	<i>Schleichera</i> is a monotypic genus of plants in the soapberry family, Sapindaceae. There is only one species, <i>Schleichera oleosa</i> , a tree that occurs in the Indian Subcontinent and Southeast Asia
4	<i>Terminalia elliptica</i>	Ain	17	<i>Terminalia elliptica</i> is a species of <i>Terminalia</i> native to southern and southeast Asia in India
5	<i>Terminalia paniculata</i>	Kinjal	17	<i>Terminalia paniculata</i> is a tree native to southwest India (including the Western Ghats and Karnataka). Known in the timber trade as kinjal It is economically important for wood, medicinal uses and raising silkworms.
6	<i>Alstonia scholaris</i>	Saptaparni	17	<i>Alstonia scholaris</i> , commonly called blackboard tree or devil's tree in English, is an evergreen tropical tree in the family Apocynaceae. <i>Alstonia scholaris</i> is a glabrous tree and grows up to 40 m (130 ft) tall. Its mature bark is grayish and its young branches are copiously marked with lenticels.
7	<i>Butea monosperma</i>	Palash	17	<i>Butea monosperma</i> is a species of <i>Butea</i> native to tropical and sub-tropical parts of the Indian Subcontinent. Common names include flame-of-the-forest, palash and bastard teak

8	<i>Erythrina variegata</i>	Panghara	17	<i>Erythrina variegata</i> is a much-branched deciduous tree growing from 3 - 27 metres tall. It has a fluted bole, the thick and sappy bole and branches are armed with large, scattered prickles, though cultivated forms are often unarmed. The plant is widely cultivated throughout the tropics, but especially in India, as an ornamental tree, a living fence, hedge plant, medicinal plant, shade tree and for soil conservation.
9	<i>Mangifera indica</i>	Amba	17	<i>Mangifera indica</i> , commonly known as mango, is a species of flowering plant in the sumac and poison ivy family Anacardiaceae. It is native to the Indian subcontinent where it is indigenous. Hundreds of cultivated varieties have been introduced to other warm regions of the world. It is a large fruit-tree, capable of growing to a height and crown width of about 30 metres (100 ft) and trunk circumference of more than 3.7 metres (12 ft)
10	<i>Tabernaemontana alternifolia</i>	Naagkuda	17	<i>Tabernaemontana alternifolia</i> is a species of plant in the family Apocynaceae. It is endemic to India
11	<i>Macaranga peltata</i>	Chandwar	17	<i>Mallotus tetraococcus</i> is a pioneer or early-successional or early-secondary tree species more common in forest edges, clearings, and secondary forests than in mature forest interiors.

				Ecophysiological studies indicate that <i>Macaranga peltata</i> shows a combination of high quantum use efficiency of photosynthetic system (Fv/Fm) and relative growth rates under higher light conditions, similar in pattern to other pioneer species such as <i>Mallotus tetracoccus</i>
12	<i>Azadirachta indica</i>	Neem	17	<i>Azadirachta indica</i> , commonly known as neem, nimtree or Indian lilac, is a tree in the mahogany family Meliaceae. It is one of two species in the genus <i>Azadirachta</i> , and is native to the Indian subcontinent. It is typically grown in tropical and semi-tropical regions. Neem trees also grow in islands located in the southern part of Iran. Its fruits and seeds are the source of neem oil.
13	<i>Bridelia retusa</i>	Asana	17	This is the commonest Indian species of <i>Bridelia</i> , found in dry deciduous to moist deciduous forests, mixed forest, riverbanks, rocky places. Found throughout the country excluding Andaman and Nicobar Islands. The bark of the roots is used in traditional medicine

14	Bombax ceiba	Sawar	17	Bombax ceiba, like other trees of the genus Bombax, is commonly known as cotton tree. More specifically, it is sometimes known as Malabar silk-cotton tree; red silk-cotton; red cotton tree; or ambiguously as silk-cotton or kapok. It produces a capsule which, when ripe, contains white fibres like cotton. Its trunk bears spikes to deter attacks by animals. Although its stout trunk suggests that it is useful for timber, its wood is too soft to be very useful.
15	Pterospermum acerifolium	Muchkund	17	Pterospermum is a flowering plant genus. Traditionally included in the family Sterculiaceae, it is included in the expanded Malvaceae in the APG and most subsequent systematics.
16	Cordia dichotoma	Shelu	17	Cordia dichotoma (C. dichotoma) is one of the traditional medicinally important deciduous plants available all over India. Cordia dichotoma is chief ingredient. From the ancient time, leaves and stem bark are used in the treatment of dyspepsia, fever, diarrhea, leprosy, gonorrhoea and burning sensation.
17	Neolamarckia cadamba	Kadamba	17	Neolamarckia cadamba, with English common names burflower- tree, laran, and Leichhardt pine, and called kadam locally, is an evergreen, tropical tree native to South and Southeast Asia. It has scented orange flowers in dense globe-shaped

				clusters. The flowers are used in perfumes. The tree is grown as an ornamental plant and for timber and paper-making. Kadam features in Indian religions and mythologies.
18	Firmiana colorata	Kaushi	17	Sterculia colorata, the scarlet sterculia, is a medium-sized tree with spreading branches. It sheds leaves before the onset of flowering. After leaf-shedding, buds sprout and develop into flowers. The tree flowers from March to April. The genus Sterculia was named after the Latin god Sterculius.
19	Millingtonia hortensis	Kavalnimb	19	It is a versatile tree which can grow in various soil types and climates with a preference for moist climates. Like Parijata it blooms in night and sheds during morning. Flowers give very pleasant smell.

**45.Total quantity of plants on ground**

**46.Number and list of shrubs and bushes species to be planted in the podium RG:**

Serial Number	Name	C/C Distance	Area m2
1	NA	NA	NA

**7.Energy**

<b>Power requirement:</b>	<b>Source of power supply :</b>	MSEDCL
	<b>During Construction Phase: (Demand Load)</b>	6000 kW
	<b>DG set as Power back-up during construction phase</b>	750 kVA
	<b>During Operation phase (Connected)</b>	1992

	<b>load):</b>	
	<b>During Operation phase (Demand load):</b>	1350
	<b>Transformer:</b>	2000 kVA
	<b>DG set as Power back-up during operation phase:</b>	2 x 750 kVA
	<b>Fuel used:</b>	Diesel, 240 kg/hr.
	<b>Details of high tension line passing through the plot if any:</b>	NA
<b>48. Energy saving by non-conventional method:</b>		
Solar energy will be used for streetlights and rooftop solar system will be installed on building		
<b>49. Detail calculations &amp; % of saving:</b>		
<b>Serial Number</b>	<b>Energy Conservation Measures</b>	<b>Saving %</b>
1	Solar streetlights & Roof top solar power system will be installed	0.25 %
<b>50. Details of pollution control Systems</b>		
<b>Source</b>	<b>Existing pollution control system</b>	<b>Proposed to be installed</b>
Air emissions	The existing Boiler & TFH fuel will be replaced with fuel PNG to reduce SO <sub>2</sub> & PM emissions. A stack height of 30 m is provided for all the boiler and thermic fluid heater stacks. Multi cyclone dust collector is provided to briquette fired boiler. Stack of D.G set is 5.4 m above roof.	Stack height of 30 m will be provided to additional thermic fluid heaters. Cleaner fuel – PNG will be continued to be adopted to reduce SO <sub>2</sub> & PM emissions.
Liquid Effluent	ETP of 160 CMD is provided at site with primary, secondary and tertiary treatment.	ETP capacity will be 240 CMD will be provided with Primary, secondary and tertiary treatment and ultra-filtration shall be followed. The additional effluent due to proposed expansion will be reused within premises.
Noise & Vibrations	The D.G set is installed in an isolated place and acoustic enclosures have been provided. PPE's are provided to workers.	The same practice will be followed.
<b>Budgetary allocation</b>	<b>Capital cost:</b>	1500000
	<b>O &amp; M cost:</b>	150000

(Capital cost and O&M cost):				
<b>51.Environmental Management plan Budgetary Allocation</b>				
<b>a) Construction phase (with Break-up):</b>				
Serial Number	Attributes	Parameter	Total Cost per annum (Rs. In Lacs)	
1	Air	<ul style="list-style-type: none"> <li>Dust abatement by water sprinkling</li> <li>Creating Wind barrier for controlling the dust emission</li> </ul>	4.5	
2	Sewage	<ul style="list-style-type: none"> <li>Treatment in existing ETP</li> </ul>	0	
3	Noise	<ul style="list-style-type: none"> <li>Provision of PPEs for Construction workers,</li> <li>Creating Wind barrier for controlling the dust emission</li> </ul>	2.0	
4	Solid Waste Management	<ul style="list-style-type: none"> <li>Disposal, Transportation of Solid waste,</li> </ul>	2.5	
5	Occupational Health & Safety	<ul style="list-style-type: none"> <li>Breathing masks, Safety PPEs to construction workers</li> </ul>	2	
<b>b) Operation Phase (with Break-up):</b>				
Serial Number	Component	Description	Capital cost Rs. In Lacs	Operational and Maintenance cost (Rs. in Lacs/yr)
1	Air	<ul style="list-style-type: none"> <li>Stack with 30 m height will be provided</li> <li>to TFH stack</li> <li>Maintenance of stack (R)</li> </ul>	5	0.2
2	Water	<ul style="list-style-type: none"> <li>Primary, Secondary and tertiary treatment,</li> <li>Ultrafiltration</li> <li>Maintenance cost of ETP (R)</li> </ul>	100	8

3	Occupational Health	<ul style="list-style-type: none"> <li>• PPE's to employees, <ul style="list-style-type: none"> <li>• Regular monitoring of health checkups</li> <li>• Addition of new PPEs and Maintenance cost (R)</li> </ul> </li> </ul>	2	0.5
4	Noise	<ul style="list-style-type: none"> <li>• Acoustic enclosures to DG Set</li> <li>• Maintenance cost (R)</li> </ul>	0.5	0.1
5	Hazardous waste	<ul style="list-style-type: none"> <li>• Disposal of Hazardous Waste to common hazardous waste disposal facility</li> <li>• (R)</li> </ul>	0	15
6	Green Belt	<ul style="list-style-type: none"> <li>• Development of green belt in the</li> <li>• proposed green belt area.</li> <li>• Maintenance of green belt (R)</li> </ul>	5	15
7	Rain Water Harvesting system	<ul style="list-style-type: none"> <li>• Installation of Rain Water Harvesting collection system with 50 KL storage capacity</li> <li>• Annual cleaning and Maintenance (R)</li> </ul>	5	0.5
8	Environmental Monitoring	<ul style="list-style-type: none"> <li>• Quarterly Environment Monitoring (R)</li> <li>• Installation of CEMS &amp; Effluent monitoring system</li> </ul>	50	6
9	Energy Saving Measures	<ul style="list-style-type: none"> <li>• Solar street lights and rooftop solar harvesting system</li> <li>• Maintenance of the solar</li> </ul>	15	1.5

		harvesting system (R)		
10	EC Conditions Monitoring	<ul style="list-style-type: none"> <li>• Third party monitoring of</li> <li>• Compliance of E.C. Conditions (R)</li> </ul>	0	5

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

Description	Status	Location	Storage Capacity in MT	Maximum Quantity of Storage at any point of time in MT	Consumption / Month in MT	Source of Supply	Means of transportation
Ethylene oxide	Gas	Above ground Storage tank	50	50	1050	Local	By road
Propylene oxide	Liquid	Above ground Storage tank	50	50	150	Local	By road
Formaldehyde	Liquid	Above ground Storage tank	30	30	330	Local	By road
Formic acid	Liquid	Above ground Storage tank	30	30	210	Local	By road
Hydrogen peroxide	Liquid	Above ground Storage tank	30	30	240	Local	By road
Caustic Lye	Liquid	Above ground Storage tank	30	30	60	Local	By road
Sulphuric Acid	Liquid	Above ground Storage tank	10	10	30	Local	By road
Liquor Ammonia	Liquid	Above ground Storage tank	30	30	15	Local	By road
Morpholine	Liquid	Above ground Storage tank	100	100	350	Local/import	By road/By sea
Mono Methyl Amine	Gas	Above ground Storage tank	120	120	750	Local	By road
Mono Ethyl Amine	Liquid	Above ground Storage tank	125	125	150	Local	By road

Ethyl Ethanolamine	Liquid	Above ground Storage tank	125	125	1087.5	Local	By road
Piperidine	Liquid	Drums	10	10	20.22	Local	By road
Methyl Diethanolamine	Liquid	Above ground Storage tank	600	600	42.6	Local	By road
Caustic Flakes (3,0,1)	Solid	Bags	15	15	13.08	Local	By road
N Methyl Morpholine	Liquid	Above ground Storage tank	20	20	214.39	Local	By road
Ethyl Monoethanolamine HB (3,2,1)	Liquid	Above ground Storage tank	100	100	42	Local	By road
Diethanolamine	Solid	Above ground Storage tank	50	50	1749	Local	By road
Methanol	Liquid	Drums	10	10	1.95	Local	By road
Di-Butyl Amine	Liquid	Above ground Storage tank	10	10	119.25	Local	By road
Phenol	Liquid	Drums	20	20	113.1	Local	By road
Tertiary Butyl Amine	Liquid	Drums	10	10	85.5	Local	By road

**52.Any Other Information**

No Information Available

**53.Traffic Management**

	<b>Nos. of the junction to the main road &amp; design of confluence:</b>	NA
	<b>Number and area of basement:</b>	NA
	<b>Number and area of podia:</b>	NA
	<b>Total Parking area:</b>	7332.58 sq. m.
	<b>Area per car:</b>	NA
	<b>Area per car:</b>	NA
<b>Parking details:</b>	<b>Number of 2-Wheelers as approved by competent authority:</b>	NA

	<b>Number of 4-Wheelers as approved by competent authority:</b>	NA
	<b>Public Transport:</b>	NA
	<b>Width of all Internal roads (m):</b>	6 m
	<b>CRZ/ RRZ clearance obtain, if any:</b>	NA
	<b>Distance from Protected Areas / Critically Polluted areas / Eco-sensitive areas/ inter-State boundaries</b>	NA
	<b>Category as per schedule of EIA Notification sheet</b>	5 (f)
	<b>Court cases pending if any</b>	NA
	<b>Other Relevant Information</b>	NA
	<b>Have you previously submitted Application online on MOEF Website.</b>	No
	<b>Date of online submission</b>	-

3. The proposal has been considered by SEIAA in its 239<sup>th</sup> (Day-2) meeting and decided to accord Environment Clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implantation of following terms and conditions-

**Specific Conditions:**

**SEAC Conditions-**

1. PP to spend part CER funds for the conservation and protection of crocodiles observed in the study area in consultation with the competent Authority of Forest Department.
2. PP proposes to discharge 80 CMD of treated effluent to the CETP and 75 CMD will

- be recycled.
3. PP to comply with all recommendations of the HAZOP and Risk Assessment study.
  4. PP to complete rain water harvesting facility before the commissioning of the manufacturing activity.
  5. PP to provide sliding gate at entry and exit to achieve maximum turning radius of vehicle entering the site.
  6. PP to provide obstruction free access road to the ETP area.
  7. PP to build adequate capacity wall in the hilly area so as to minimize impact of land slide if any.
  8. PP to use PNG as a fuel to existing as well as proposed utilities.

**SEIAA Conditions**

1. PP submitted MIDC plan dated 08.12.2021. As per the said plan total plot area of the project is 73,315 sqm and PP has provided 27,998.64 sqm as green belt (40% of total plot area).
2. PP to undertake Miyawaki plantation of native and indigenous trees such as Banyan, Peepal, Neem, Jamun and other suitable trees as per the Forest Department, Govt. of Maharashtra circular no SaVaVi-2019/C.R.3/F-11, dated 25th June, 2019. The said plantation to be completed in the first year of operation of Environmental Clearance under expert guidance of Miyawaki experts / arborist.
3. PP to ensure that, proposed expansion will be a ZLD unit.
4. PP to strictly observe the Solid Waste Management Rules, 2016 as amended time to time.
5. PP to strictly observe the Hazardous and Other Wastes (Management & Trans boundary Movement) Rules, 2016 as amended time to time.
6. PP to identify all sources of fugitive air pollution on site and provide pollution control measures to mitigate pollution and meet the standard parameters stipulated in the Environment (Protection) Rules, 1986 amended time to time & Air (Prevention and Control of Pollution) Act, 1981 amended time to time.
7. PP to ensure storage of chemicals as per the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 amended time to time to ensure no release of any chemical to the atmosphere and leakage to the soil.
8. PP to ensure transport, storage, handling and use of the flammable/toxic chemicals as per conditions stipulated in license/approval of the Petroleum & Explosive Safety Organization (PESO).
9. PP to obtain approval and License from the Directorate of Industrial Health & Safety (DIHS) for proposed project and implement all condition stipulated therein. PP to carry out Safety Audit as stipulated in the Maharashtra Factories Rules, 1963 and ensure compliance of recommendation of the Audit.
10. PP to provide solar energy for illumination of Administrative Building, Street Lights and parking Area.
11. PP to ensure use of briquette /bio coal/ pellets/ or any such suitable product derived from scientific processing of appropriate stream of dry waste/agricultural waste , not less than 50 % of the total fuel requirement to the boiler.
12. PP to provide roof top Rain Water Harvesting facility.

**General Conditions:**

- I. The project proponent 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 Environmental Clearance letter

- are available with the Maharashtra Pollution Control Board, website of the company and may also be seen at Website at <http://parivesh.nic.in>
- II. The project Proponent shall upload the status of compliance (soft copies) of the conditions stipulated Environmental Clearance letter including monitoring data of air, water, soil, noise etc. on their website and shall update the same periodically. The half yearly compliance report shall simultaneously be submitted to the Maharashtra Pollution Controls Board, SEIAA and the Regional Office off MoEF&CC at Nagpur, on 1<sup>st</sup> June & 1<sup>st</sup> December of each calendar year.
  - III. Separate fund shall be allocated for the implementation of Environmental Management Plan along with item wise break up and specific time line for its completion. The cost shall be included as part of the project cost. The funds earmarked for the environmental protection measures shall not be diverted for other purpose and year-wise expenditure should be reported to the MPCB and the SEIAA.
  - IV. A separate Environmental Management Cell with qualified personnel shall be set up for implementation of the stipulated environmental safeguards.
  - V. In the event of failure of any pollution control equipment, the manufacturing activity shall be immediately stopped safely till the effective functioning of pollution control equipment's is regained.
  - VI. PP to strictly follow conditions stipulated in the Consent to Establish/Operate issued by the Maharashtra Pollution Control Board.
  - VII. PP to provide separate drains for storm water and effluent, and ensure that, the storm water drains are dry all the time and in no case the effluent shall mix with the storm water drain.
  - VIII. Periodic Monitoring of ground water in the study area as marked in the Environmental Impact Assessment Report shall be undertaken and results analysed to ascertain any change in the quality of water. Results shall be regularly submitted to the Maharashtra Pollution Control Board.
  - IX. The overall noise levels in and around the factory premises shall be kept within the prescribed standard under the Environment (Protection) Act, 1986 and Rule, 1989 as amended from time to time by providing adequate noise control measures and protective equipment's like ear muff and ear plug etc.
  - X. Adequate safety measures shall be ensured to limit the risk zone within the factory premises. Leak detection system shall be installed for early detection and mitigation purpose.
  - XI. PP to scrupulously follow the requirements of Maharashtra Factories Act, 1948 & Rules 1963 as amended from time to time.
  - XII. The Environmental Statement for each financial year ending on 31<sup>st</sup> March in Form-V as is mandated to be submitted by the Project Proponent to the concerned Pollution Control Board as prescribed under the Environment (Protection) Rule, 1989 as amended from time to time, it shall also be put on the website of the company along with the status of the compliance of the conditions stipulated in the Environmental Clearance letter.

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. In case of submission of false document and non-compliance of stipulated conditions, Authority/ Environment Department will revoke or suspend the Environment clearance without any intimation and initiate appropriate legal action under Environmental Protection Act, 1986.

6. The Environment department reserves the right to add any stringent condition or 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.

7. Validity of Environment Clearance: The environmental clearance accorded shall be valid as per EIA Notification, 2006, amended time to time.

8. 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.

9. 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.

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

  
Manisha Patankar, Mhaiskan  
(Member Secretary, SEIAA)  
20/4/2022

Copy to:

1. Chairman, SEIAA (Maharashtra), Mumbai.
2. Secretary, MoEF & CC
3. IA- Division MOEF & CC
4. Member Secretary, Maharashtra Pollution Control Board, Mumbai.
5. Regional Office MoEF & CC, Nagpur
6. District Collector, Thane.
7. Regional Officer, Maharashtra Pollution Control Board, Navi Mumbai.