NET Payment Receipt

PCB ID: 69206-M/s. MAITRI PHARMA

Address : , Plot No. 25/10,Jhagadia GIDC, Bharuch- Gujarat, ANKLESHWAR, Ankleshwar Pin : 393110

Application: 150689(ECC)-dd/MM/yyyy

Payment Id	**189165**
Payment Date	**16/01/2019**
Paid Amount	**6000**
Bank Details	**UTI-633333671**
Transaction No	**PUTI7113231752**
Status	**Success**
Remarks	**Y**
Referance No	**150689 (Environment Clearance)**
Type	**EC -ECC-CCA**
MIS Date	**17/01/2019**

Date : 20/05/2019

Check list – Industrial Projects

For submission of Environmental Clearance applications

[Appraisal cases]

Provide authenticated (with stamp & Signature) hard copy of this check-list during submission of hard copy of ToR/EC application.

Sr. no.	Particulars	Tick mark as applicable	Page no. of application.
1	EIA report as per the TOR granted by SEIAA and as per the generic structure given in Appendix III of EIA Notification 2006.	Yes	Yes Attached as annexure-1, Page No.302
2	Form-2 Application for Prior Environmental Clearance as prescribed by MoEF&CC as per OM dated 20/04/2018.	Yes	Online updated
3	Documents related to Land ownership included in EIA report	Yes	Yes Attached as annexure-2, Page No. 314
4	For 5 (f) category • Project site is located within GIDC • If No, Compliance of following conditions ➢ Water consumption < 25 KLD ➢ Fuel Consumption <25 MTPD ➢ Non-MAH Unit	Yes	5(f) format is Attached with Check list
5	Contact details Mobile no. and e-Mail ID included in Application	Yes	Given in 5(f) format
6	Format prescribed by SEAC [Salient features of the project] included with application.	Yes	Given in 5(f) format
7	General Condition applicability (5) Protected areas notified under the Wildlife (Protection) Act, 1972; (6) CEPI areas (7) Eco-sensitive areas and (8) Inter-state boundaries and international boundaries; are not located within 5 km or 10 km (as the case may be) area from the boundary of the proposed site.	No	---
8	Compliance status of existing project (In case of expansion) included in EIA report i.e. • Compliance report from MoEF&CC or GPCB or CPCB as per the MOEFCC's Circular dated 07/09/2017	No	---
9	Violation of EIA Notification 2006 (Yes or No)	No	---
	Product profile with CAS no. / CI no.	Yes	Given in 5(f) format
10	Raw Material details and manufacturing process of all products with CAS no. / CI no.	Yes	Given in 5(f) format
11	Spent Acids (H2SO4, HCl etc.) generation.	No	---
12	If Yes, it is considered as Haz. Waste?	No	---

13	Source of water, Water balance included in EIA report. • Permission letter to obtain fresh water • Waste water management, • Membership certificate of common facility (CETP, CMEE, CSD etc. 0 • Permission letter for discharge of waste water etc.	Yes	Given in 5(f) format
14	Flue gas & process gas emission details Included in Form-1	Yes	Given in 5(f) format
15	Hazardous waste generation and its management as per the HW Rules 2016 included in Form-1	Yes	Given in 5(f) format
16	Spent solvent generation	Yes	Given in 5(f) format in table of Hazardous waste management
17	If, yes Management of spent solvent included in application?	No	
18	Details of Public hearing and time bound compliance with details of budgetary provision included in EIA report. (In case of public hearing is applicable)	No	---
19	Documents regarding Accreditation of EIA Consultant are included in EIA report.	Yes	High Court stay order is Attached as annexure-9, at page no.324
20	Undertaking of project proponent and EIA Consultant regarding EIA report are included in EIA report.	Yes	Project proponent :- Annexure- 5 on page no. 318 EIA Consultant Annexure 11 on page no. 331
21	Environmental Management Plan (EMP) report and details of financial outlay & year wise break up is included in EIA report.	Yes	Given in page No.226
22	Green belt details with budgetary outlay included in EIA report.	Yes	Given in page No .272
23	Declaration by experts (Name, qualification, area of work, designation etc.) contributing to the EIA Report is included.	Yes	Given in Page No.298
24	Compliance of MoEFCC's OM dated 01/05/2018 regarding "Corporate Environment Responsibility" (CER).	Yes	Given in Page No.265

Above details are true to the best of my knowledge and I am abided to respect the decision of the SEIAA/SEAC if above information stands wrong in the future and also agree to initiated the legal proceedings against my project.

Name & designation of the Applicant: Divyesh R. Nagoriya(Partner)

Stamp &Signature of Applicant:

Date:08/05/2019

Project details

- Synthetic Organic Chemicals 5(f)
- For Environmental Clearance **[EC]**
- **New Project**

1. Basic Information of the Project:

i	**Name & Address of the Project site** (Complete details with plot no./Survey no., Landmark etc.)	M/s. Maitri Pharma Plot 25/10, GIDC Jhagadia Nr. Pepsico India Pvt. Ltd. Industrial Estate, Dist. Bharuch - Gujarat
ii	Name of the Applicant	Mr. Divyeshkumar Ravinbhai Nagoriya
iii	**Address** for correspondence	9, Nilkanth Society, Near Gandhikutir society, Bhatar Road, Surat – 395001, Gujarat , India
iv	**Contact no**. and e-mail ID of the Applicant	Mo. no. : 9909996216 e-Mail: divyeshnagoriya@gmail.com
v	**Aerial distance** of nearest Habitat (KM)	Dadheda 2.11 Km
vi	Longitude & Latitude of the Project Site: (4 corners of the site)	

Corners	Latitude	Longitude
1st	21°37'4.41"N	73° 7'36.18"E
2nd	21°37'4.77"N	73° 7'37.34"E
3rd	21°37'2.24"N	73° 7'36.98"E
4th	21°37'2.64"N	73° 7'38.14"E

vii	**Category** as per the Schedule to the EIA Notification 2006 i.e. 1(d), 2(b), 5(f) etc.	5 (f) Synthetic Organic Chemicals **Sub-Category:** B 1
viii	**Applicability of General Conditions of EIA Notification 2006:** i.e. Ensure that (1) Protected areas notified under the Wildlife (Protection) Act,	Not Applicable

	1972; (2) CEPI areas (3) Eco-sensitive areas and (4) Inter-state boundaries and international boundaries; are not located within 5 km or 10 km (as the case may be) area from the boundary of the proposed site. ***Note:*** ***If located in Vapi-Sarigam region, kindly give exact aerial distance from the interstate boundary i.e. Boundary with Maharashtra state & U.T. of* Daman, Diu and Dadra Nagar Haveli.**	
viii	In case of unit located outside the Notified area: Complying the three conditions as per the amendment to EIA Notification, 2006 vide SO 1599 (E) dated 25/06/2014. [i.e. water consumption less than 25 M3/day; Fuel consumption less than 25 TPD; and not covered in the category of MAH units as per the Management, Storage, Import of Hazardous Chemical Rules (MSIHC Rules), 1989] *(Storage details of all the hazardous chemicals shall be submitted in tabular form for justification.)*	Not Applicable

2. Online application & PH reg. :

a) Date of SEAC meeting for recommendation to grant TOR:	22nd January 2019
b) Online application proposal no. :	---
c) Date online **acceptance** of EC application **by SEAC:**	---
d) TOR issued by SEIAA: Letter no & date.	SEIAA/GUJ/TOR/5(f)/452/2019, vide dated 25th March 2019
e) Date & Place of Public Hearing (If applicable):	Not applicable
f) Date of presentation for Appraisal:	**----**

3. Product profile:

Sr. No.	**Name of the Products**	**CAS no. /CI no.**	**Quantity MT/Month**	**End-use of products**
1	**Pharma Intermediates**	**---**	**5**	
	Cinnamyl aldehyde	104-55-2	Either / OR	Flavouring agent agent inchewing gum, beverages
	m-Phenoxy benzyl alcohol	13826-35-2		used as active in pharmaceutical products
	P-anisaldehyde/ 4-methoxy benzaldehyde	123-11-5		fragrance and flavor industry.
	4-Chlorobenzophenone	134-85-0		UV curing type coating, printing ink, medical
	2-[4-(4-cyclopropyl carbonyl phenyl]-2-methyl propionic acid cyclohexyl amine salt	153439-40-8		Fexofenadine Intermediate API (anti allergic)
	N-(2-chloro-4-methyl-3-pyridinyl)2-(cyclopropyl	133627-46-0		Nevirapine API (anti HIV drug)

	amine)-3-pyridinecarboxamide			
	Trans-4-(2-amino-3,5-dibromobenzylamino)cyclohexanol hydrochloride	27489-62-9		Ambroxole Hydrochloride API (for respiratory disease)
2	**Fine Chemical**		**20**	
	Benzyl alcohol	100-51-6		Used as bacteriostatic in medications, cosmetics and topical drugs
3	**Anti allergic**		**1**	
	2-[4-[4-chlorophenyl)phenyl methyl [1-piperazinyl] ethoxy] acetic	303-26-4		Cetrizine API (anti allergic)
4	**Dye Intermediates**		**5**	
	4-chlorophthalic acid mono sodium salt	56047-23-5	Either / OR	Dyes intermediate
	Phenyl peri acid magnasium salt	18108-68-4		Dyes intermediate
		Total	**31**	

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006.

4. Product wise Raw material consumption:

Sr. no.	**Name of the Products**	**Name of the Raw Materials**	**CAS / CI no. of raw materials.**	**Quantity MT/Month**
Pharma Intermediates				
1	Cinnamyl aldehyde	Benzaldehyde	100-52-7	4.464
		Acetaldehyde	75-07-0	1.848
		Sodium hydroxide	1310-73-2	0.500
2	m-Phenoxy benzyl alcohol	m-Phenoxy benzaldehyde	39515-51-0	5.714
		Ni catalyst	7440-02-0	0.286
		H2 gas	1333-74-0	0.057

3	P-anisaldehyde/ 4-methoxy benzaldehyde	p-Cresol	106-44-5	5.702
		Dimethyl sulfate	77-78-1	5.207
		sodium hydroxide	1310-73-2	3.306
		Sulfuric acid	7664-93-9	8.082
		Magnesium oxide	1309-48-4	11.074
		Toluene (Fresh)	108-88-3	0.413
4	4-Chlorobenzophenone	4-Chlorobanzoic acid	74-11-3	4.07
		Thionyl chloride	7719-09-7	3.36
		Dimethyl formamide	68-12-2	0.05
		Benzene	71-43-2	2.24
		Aluminium chloride	7446-70-0	3.62
		Caustic Solution	1310-73-2	4.60
5	2-[4-(4-cyclopropyl carbonyl phenyl]-2-methyl propionic acid cyclohexyl amine salt	2-methyl-2-phenyl propanoic acid	826-55-1	3.981
		Thionyl chloride	7719-09-7	5.860
		Sodium hydroxide	1310-73-2	0.955
		Dimethyl amine 40%	124-40-3	4.092
		Alluminium chloride	7446-70-0	6.513
		4-Chloro butyryl chloride	4635-59-0	3.599
		Dichloromethane (Fresh)	75-09-2	0.239
		Hydrochloric acid 30% (Recovered)	7647-01-0	20.876
		Toluene (Fresh)	108-88-3	0.438
		Brine solution	7647-14-5	3.981
		Methanol (Fresh)	67-56-1	0.118
		cyclohexyl amine	108-91-8	1.688
6	N-(2-chloro-4-methyl-3-pyridinyl)2-(cyclopropyl amine)-3-pyridinecarboxamide	3-Amino-2-chloro-4-methyl pyridine	133627-45-9	3.881
		2-Chloronicotinoyl chloride	49609-84-9	6.354
		Cyclopropyl amine	765-30-0	1.182
		Methanol (Fresh)	67-56-1	0.181
		Toluene (Fresh)	108-88-3	0.361
7	Trans-4-(2-amino-3,5-dibromobenzylamino)cyclo hexanol hydrochloride	2-Aminobenzaldehyde	529-23-7	2.000
		Fresh Methanol	67-56-1	0.763
		Bromine	7726-95-6	5.289
		Potassium bromide	7758-02-3	1.974

		Trans-4-amino cyclohexanol	27489-62-9	1.737
		Toluene (Fresh)	108-88-3	0.947
		Isopropyl alcohol (Fresh)	67-63-0	0.842
		HCl gas	7647-01-0	0.658
		Sodium borohydrate	16940-66-2	0.500
Fine Chemical				
8	Benzyl alcohol	Benzyl chloride	100-51-6	26.738
		sodium carbonate	497-19-8	15.508
Anti allergic				
9	2-[4-[4-chlorophenyl)phenyl methyl [1-piperazinyl] ethoxy] acetic	4-Chlorobenzophenone	134-85-0	0.798
		sodium borohydrate	16940-66-2	0.160
		Fresh Methanol	67-56-1	0.040
		Piprizine	110-85-0	1.427
		Fresh Toluene	108-88-3	0.130
		Hydrochloricacid	7647-01-0	0.701
		2-chloroethanol	107-07-3	0.840
		sodium monochloroacetate	3926-62-3	0.828
		Potasium hydroxide	1310-58-3	0.500
		dimethyl formamide	68-12-2	2.268
		Dichloromethane (Fresh)	75-09-2	0.084
Dye Intermediates				
10	4-Chloropthalic acid mono sodium salt	Pathallic anhydride	85-44-9	4.545
		Sodium hypochlorite	7681-52-9	27.273
11	Phenyl peri acid magnesium salt	Aniline (Fresh)	62-53-3	2.500
		Peri acid	82-75-7	4.000
		Magnesium sulfate	7487-88-9	2.200
		Sulphuric Acid 30%	7664-93-9	11

5. Salient features of the project including Water, Air and Hazardous waste management:

Sr. no.	Particulars	Details
A		
A	Total **cost of Proposed** Project (Rs. in Crores):	0.97 Crore
	EMP details (Capital cost & Recurring cost)	

Bifurcation of EMP Coast

Sr. No.	Pollution Control Measures	Equipment	Approximate Capital Cost (Rs. In Lac.)	Approximate Recurring Cost Per Annum (Rs. In Lac)
1	Air Pollution Control	Water Scrubber followed by Alkali Scrubber, Water Scrubber	3	0.546
2	Water Pollution Control	ETP & R.O	7	23.15
3	Environment Monitoring and Management	---	0	2
4	Solid Waste Management	HWSA, Membership Of TSDF and Incineration of Hazardous Waste	1.5	23.1
5	Safety & Health	Fire Extinguisher, First Aid Kit, Fire Hydrant, Smoke detector	2	3.2
6	Green Belt	Plants, Tree Guard, Manure	1.5	0.9
Total			**15**	**52.896**

CER details (As per MoEF&CC OM dated 01/05/2018)

As per OM no. 22-65/2017 on dated 01/05/2018 regarding "Corporate Environment Responsibility" (CER), Brownfield projects have to contribute 2.5% of the Additional Capital Investment, the company will contribute Rs. 2.4 Lakhs as funds for CER activities

Component	As per Norms	Allocation
CER	2.4 Lakhs (2.5%)	2.4 Lakhs (2.5 %)

Activities to be carried out under CER:

Environment beneficial activities like: Drinking Water facility, Plantation around School, LED Bulb/Solar light to habitation area

B	**Total Plot area** (sq. meter)	2139.68 Sq. m.
	Green belt area (sq. meter)	753 Sq. m.
C	**Employment generation**	20 Numbers
D	**Water**	
i	Source of Water Supply	GIDC Jhagadia

	(GIDC Bore well, Surface water, Tanker supply etc...)	
	Status of permission from the concern authority.	Given as below in plot allotment letter

Gujarat Industrial Development Corporation
(A Govt. of Gujarat Undertaking)

Administrative office building,
Plot no. 624/B, GIDC, Ankleshwar,
Dist. Bharuch.
Phone: +91-02646-221351, 221451, 221403
Fax: +91–02646-251451
Email- rmank@gidcgujarat.org

No: GIDC/RM/ANK/ 1786
BY R.P.A.D.

Date: 31 MAY 2017

Sub: Transfer of Unutilized open Plot No.25/10 area admeasuring 2634.75 Sq.mtrs at Jhagadia Industrial Estate.

"OFFICE ORDER"

Plot No.25/10 area admeasuring about 2634.75 sq.mtrs has been allotted to M/s. India Pistons Ltd in Jhagadia Industrial Estate on dated 30-07-2010. The License Agreement was executed on dated 03-11-2010. The Licensee has applied to the corporation for transfer of plot in favour of Maitreyee D Nagoriya. Permission for transfer of plot, with certain terms and conditions has been issued by the Regional Manager, GIDC, Ankleshwar as per letter No.GIDC/RM/ANK/1214 dated 31-03-2017.

The licensee has paid all dues of the Corporation up to March-2017. According to the policy of the corporation, you have paid Rs.5,63,837/-- being 20% transfer fee on present land price. The Supplementary Agreement has been executed between the licensee, transferee and corporation on 08-05-2017 and deed of assignment has been executed on 08-05-2017 between transferor and transferee.

In view of above facts the plot now stands transferred in the name of Maitreyee D Nagoriya, with permission to utilize the plot by 31-03-2020.

This permission will not be in any case considered as a permission for building bye-laws of the corporation. This transfer order will not be taken into cognisance as an order for regularization of unauthorized construction, if any unauthorized construction exist on the allotted property said can not be considered as authorized one and it shall be the sole responsibility of the trasnsferee to get such construction regularized or removed as per the building bye laws of the corporation.

The transferee's water requirement, power requirement and quantity of liquid effluent discharge of the proposed project are as under:-

YEAR	WATER REQUIREMENT	POWER REQUIREMENT	DRAINAGE
First Year	80 KL per day	125 KW	
Second Year	120 KL per day	130 KW	
Third year	160 KL per day	140 KW	

Regional Manager
GIDC Ankleshwar

To
1) Maitreyee D Nagoriya
9 Nilkanth society
Near Gandhi Kutir Bhatar road
Surat 395 001 Gujarat

2)M/s. India Pistons Ltd
Huzur Gardens Semblem Chennai 600 011

Copy Fwcs to:
1. Executive Engineer, G.I.D.C, Ankleshwar
2. SAO, GIDC, Ankleshwar
3. Deputy Executive Engineer GIDC Jhagadia
4 DEO GIDC Ankleshwar

ii **Water consumption (KLD)**

Category	Quantity KLD	Remarks
(A) Domestic	5	
(B) Gardening	3	
(C) Industrial		
Process	5.5	1.8 KLD will be recycle in process
Washing	2.5	
Boiler	1	
Cooling	2.5	
Others	1	Water use for Scrubbing
Industrial Total	12.5	
Total (A + B + C)	20.5	Total Fresh Water -18.7 KLD & Recycled Water – 1.8 KLD

1) **Total water requirement** for the project: 20.5 KLD
2) Quantity to be **recycled**: 1.8 KLD (Internal Recycled)
3) Total **fresh water** requirement: 18.7 KLD

iii **Waste water generation (KLD)**

-

Category	Waste water KLD	Remarks
(A) Domestic	4	Disposed through Soak pit
(B) Industrial		
Process	6.9	Treated in to VOC removal reactor & Single stage evaporator then send to ETP
Washing	2.5	
Boiler	0.02	
Cooling	0.1	
Others	1.4	Scrub Solution HCl , Na_2SO_4 & Ammonium Sulphate will be generated and treated in to in house ETP
Total Industrial waste water	10.92	
Total [A + B]	14.92	

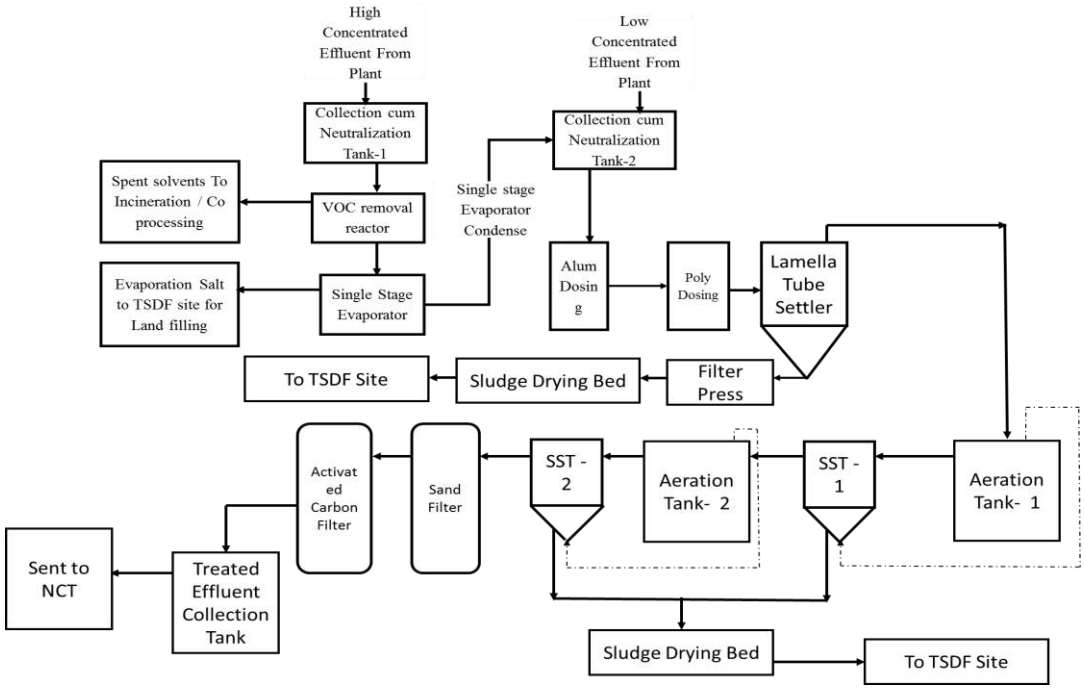
iv Treatment facility within premises with **capacity**

[In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc.

- ETP capacity 20 KLD followed by Sand filter and Activated Carbon filter & VOC removal reactor followed by Single stage Evaporator having 10 KLD capacity.

Treatment scheme including segregation at source.

- COD < 5000 mg/ lit is consider as Low COD and shall be send to ETP
- COD >5000 mg/ lit is consider as high COD and shall be send to firstVOC removal reactor followed by single stage evaporator then its outlet will be sent to ETP.



Note: (In case of CETP discharge) :

Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.

- It is new unit
- Unit will send 10 KLD treated effluent to NCT and will follow its norms

*Thus **section 18 (1) (b) is not applicable**

Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):

- N.A

v	Mode of Disposal & Final meeting point	
	Domestic:	M/s. NCT (Unit is having 10 KLD effluent discharge permission into M/s. NCT)
	Industrial:	
vi	In case of Common facility (CF) like CETP, Common Spray dryer, Common MEE etc. **Name of CF** ➢ M/S. NCT	
	Membership of Common facility (CF) **(For waste water treatment)**	

NARMADA CLEAN TECH

(A Subsidiary of GIDC)

NCT/BQC /Transfer /2017/October- 46 13th October, 2017

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mrs. Maitreyee D. Nagoriya** Plot No. 25/10, (Due to plot transferred From **M/s. India Pistons Ltd.**) GIDC Estate, Jhagadia - 393 110 is a Member of our Company.

This membership certificate is Issued against cancelation of earlier membership certificate no. NCT/BQC/2017/Jan-55 dated 10th January 2017 in name of M/s. India Pistons Ltd.

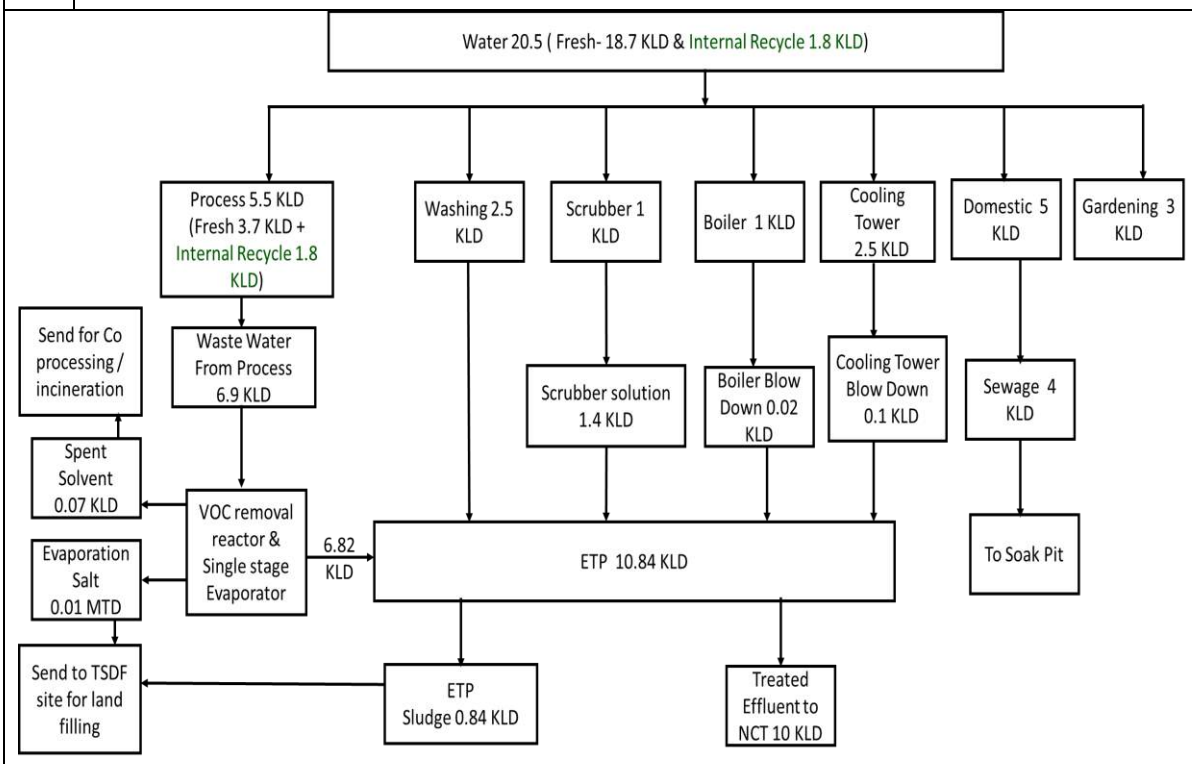
NCT has booked effluent quantity of 10 KLD under the separate pipeline project of Jhagadia (i.e. Jhagadia pipeline project - JPP).

FOR NARMADA CLEAN TECH

ALOK KUMAR
CHIEF EXECUTIVE OFFICER

Surati Bhagor, Nr. Gujarat Gas Office, Umarwada Road, Ankleshwar - 393 001, Dist. Bharuch (Gujarat)
Tele : (02646) 645285, 645635, Email : info@nctc.co.in, website : www.nctc.co.in • CIN : U40101GJ2000NPL037236

vii	**Simplified water balance diagram with reuse / recycle of waste water**



viii	Reuse/Recycle details (KLD)

Total reuse 1.8 KLD

Source of waste water for reuse with quantity in KLD (From where it is coming)	**Application area with quantity in KLD (Where it is used)**	**Characteristics of waste water to be reused (COD, BOD, TDS etc.)**	**Remarks regarding feasibility to reuse i.e.**
In production process of Benzyl alcohol - 1.8 KLD (Distilled water)	In same product	Water recover from distillation process it will be distilled water. (BOD- Nil, COD-Nil, TDS - 10-15 mg/l)	----

E	**Air**
i	Flue gas emission details No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc.
	-

-Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
01	Steam Boiler 1 TPH	12	Bio Coal	1 MT /day	PM SO_2 NO_X	Bag Filter
02	Thermic Fluid Heater 2 Nos. (0.5 lac Kg Cal/hr.)		Natural Gas	1080 Nm^3/day		Adequate Stack Height
03	DG Set 125 KVA	09	Diesel	3.120 KL/ day		Adequate Stack Height

-

ii Process gas emission details i.e. Type of pollutant gases (SO_2, HCl, NH_3, Cl_2, NO_x etc.)

-

Sr. no.	Specific Source of emission (Name of the Product & Process)	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1	4-Chlorobenzophenone, Trans-4-(2-amino-3,5-dibromobenzylamino)cyclohexanol hydrochloride	SO_2 HCl	17	Water Scrubber Followed by Alkali Scrubber
2	2-[4-(4-cyclopropyl carbonyl phenyl]-2-methyl propionic acid cyclohexyl amine salt,	HCl	17	
3	Phenyl peri acid magnasium salt	Ammonia	17	Acid Scrubber

- Regular ambient air quality monitoring will be carried out within premises and nearby area for PM10, PM2.5, SOX, NOX, and VOC in the downwind directions as well as where maximum ground level concentration is anticipated and record of the same shall be maintained.

iii **Fugitive emission** details with its mitigation measures:

As below:

Sr. No.	Source	Probable Pollutant Emission	Control Measures/ APCM
FUGITIVE EMISSION			
1	Solvent storage tank	Air pollutant (VOC)	i. Carry out work place area monitoring to find out concentration level in ambient air. ii. Provision of breather valve cum flame arrester.
2	Solvent recovery system	Air pollutant (VOC)	i. Solvent recovery system with steam condensation system. ii. Pumps & motors are mechanical seal type.
3	Handling of raw material bags in storage area	Air pollutant (PM)	i Provision of exhaust ventilation ii Provision of PPE. iii Provision of Job rotation to reduce exposure.
4	Flange joints of pipeline, pump & motors	Air pollutant (VOC)	i. Routine &periodic inspection to check leakage. ii. Preventive maintenance, Follow SOP for maintenance. iii. Pumps & motors will be mechanical seal type. iv. LDAR program will be followed. v. Provision of Flange guard.
5	Solid raw material transferring to reactor	Air pollutant (PM)	i. Hopper will be provided with powder transfer system.
6	Liquid raw material transferring to reactor	Air pollutant (VOC)	i. Feeding of liquid raw material will be carried out by closed pipeline and mechanical seal pump.
7	Loading /unloading at storage area	Air pollutant (VOC)	i. Unloading through pipeline to tank in a close system.

Other control fugitive emissions following measures are recommended:

A. Controlled emissions and provision of PPE for the workers.
B. Provision of mechanical seal in pumps.
C. Regular inspection of tank roof seals.
D. Adequate measures for the minimization/prevention of the fugitive emission.
E. Regular maintenance of valves, pumps and other equipment to prevent leakage.
F. Entire process to be carried out in the closed reactors with proper maintenance of temperature.
G. Regular periodic monitoring of work area to check the fugitive emission.
H. Adequate stack heights as per the CPCB estimation will be provides at all locations to reduce GLCs of pollutants.

Air Pollution Control System will be installed in the plant.

F	**Hazardous wastes** (as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.

i

Sr. no.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)	Management of HW
1	Effluent Treatment Plant Sludge	From ETP	35.3	305	Collection, Storage & Send to TSDF for landfilling
2	Evaporator Salt	From Single stage Evaporator	35.3	4	Collection, Storage & Send to TSDF for landfilling
3	Used Oil	From Lubrication	5.1	0.6	Collection, Storage, Sold toMoEF Approved Vendors.
4	Empty Barrels/ Containers/ Liners Contaminated with hazardous chemicals/ wastes	From Packing Material	33.1	14	Collection, Storage, decontamination, Sold to GPCB, approved Vendors
5	Process Residue and wastes / Distillation Residue	Production process of m-Phenoxy benzyl alcohol	28.1	4	Collection, Storage, Send for co-processing / Incineration
6	NaCl Salt	Generated from manufacturing of benzyl alcohol	28.1	148	Collection, Storage & Send to TSDF for landfilling
7	Spent Carbon (From ETP)	Activated Carbon filter	28.3	1	Collection, Storage, Send for co-processing / Incineration
	Spent Carbon	Carbon tower of Solvent recovery System		1	Collection, Storage, Send for co-processing / Incineration
	Spent Solvent	From Recovery of	28.6	123	Collection,

	8		solvent used in production process			Storage, Recovery in plant premises and reuse.
		Spent Solvent	From Production process & VOC removal reactor		35	Collection, Storage, Send for co-processing / Incineration
	9	Date-expired products	From premises	28.5	50	Collection, Storage, Send for co-processing / Incineration
	10	Off specification products	Production process	28.4	50	Collection, Storage, Send for co-processing / Incineration
	11	Spent catalyst	Production process of Benzyl alcohol and or 4-Chlorobenzophenone	28.2	4	Collection, Storage, Send for authorized regenerator
	12	Scrubbed Solution Na_2SO_4 10% to 20 %	Scrub solution will be generates from 4-Chlorobenzophenone	C2	200	Send to ETP for treatment.
	13	Scrubbed Solution HCl 10% to 20 %	Scrub solution will be generates from 4-Chlorobenzophenone	C2	160	Send to ETP for treatment.
	14	Scrubbed Solution HCl 30%	Scrub solution generates from 2-[4-(4-cyclopropyl carbonyl phenyl]-2-methyl propaonic acid cyclohexylamine salt	C2	252	Recycle in same product process
	15	Scrubbed Solution Ammonium sulphate 10% to 20 %	Scrub solution generates from Phenyl peri acid magnasium salt	C2	160	Send to ETP for treatment
	16	Spent Sulphuric acid 25% to 30%	Scrub solution generates from P-anisaldehyde/ 4-methoxy benzaldehyde	C2	250	Send to Actual end user under Rule-9 / use in ETP for treatment

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ii	Membership details of **TSDF, CHWIF** etc. **(For HW management)**	Land filling waste– 457 MT / year and Co-processing/Incineration waste– 141 MT/year send to BEIL
iii	Details of Non-Hazardous waste & its	MSW waste is collected by notified authority of

	disposal (MSW and others)	GIDC

Sr.No.	Waste	Quantity	Mode Of Disposal
1.	Glass Waste (Z 13)	0.1 MT/month	To TSDF.
2.	Paper waste (Z44)	0.5 MT/month	At notified area facility.
3.	Bio-Medical Waste	0.05 MT/month	Will be disposed off as per Bio Medical Waste Rules.
4.	Wooden Waste	2 MT/month	Authorized Scrap Vendors.
5.	Used Batteries	0.1 MT / month	Authorized Scrap Vendors.
6.	Fly Ash	3 MT / Month	Send to authorize Brick manufactures

G **Solvent management**, VOC emissions etc.

i Types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc.

(Details in Table Format)

SOLVENT	TOTAL MT/MONTH	RECOVERED MT/MOTH	FRESH MT/MONTH	RECOVERY (%)
Toluene	26.311	25.234	1.077	**95.9**
Methanol	31.751	30.914	0.837	**97.36**
DCM	15.475	15.152	0.323	**97.91**
IPA	21.053	20.211	0.842	**96**

ii VOC emission sources and its mitigation measures

- Provision of mechanical seal in pumps.
- Regular inspection of tank roof seals.
- Adequate measures for the minimization/prevention of the fugitive emission.
- Regular maintenance of valves, pumps and other equipment to prevent leakage.
- Entire process to be carried out in the closed reactors with proper maintenance of temperature.
- Regular periodic monitoring of work area to check the fugitive emission.
- Adequate stack heights as per the CPCB estimation will be provides at all locations to reduce GLCs of pollutants.
- Air Pollution Control System will be installed in the plant.

H

- **Details regarding storage of Hazardous chemicals**

Storage details	Name of major Hazardous chemicals	Remarks
Tanks	--	---

Drum	Benzaldehyde, Acetaldehyde, m-Phenoxy benzaldehyde, Ni catalyst, p-Cresol, Dimethyl sulfate, Sulphuric Acid, Toluene, Thionyl chloride, Dimethyl formamide, Benzene, Caustic Solution, 2-methyl-2-phenyl propionic acid, Dimethyl amine 40%,4-Chloro butyryl chloride, Dichl, Hydrochloric acid 30%, cyclohexyl amine, 3-Amino-2-chloro-4-methyl pyridine, 2-Chloronicotinoyl chloride, Cyclopropyl amine, Methanol, 2-Aminobenzaldehyde, Potassium bromide, Trans-4-amino cyclohexanol, Isopropyl alcohol, 4-Chlorobenzophenone, Piprizine, 2-chloroethanol, Aniline, Peri acid	---
Bag	4-Chlorobanzoic acid, Aluminium chloride,	---
Cylinder	H_2 gas	---
Glass Bottel	Bromine (Liquid)	---

- **Applicability of PESO** :
- Our is new proposed project therefor it is not applicable.

6. Details regarding EIA report:

Sr. no.	Particulars	Details **(Give brief note / Conclusion of the particular subject)**	Page no., Section no. & chapter no. of EIA report
a	Ensure that there is no change in EIA report w. r. t. ToR i.e. Form-1 & PFR	No change in EIA report.	----
b	Baseline environmental monitoring period	March-2018 to May - 2018	Page No.: 92 to 123 Of Chapter 3
c	Baseline study area (Km)	10	Page No. 92, Topic No. 3.1 of Chapter 3
d	No. of AAQM stations including project site	8	Page No. 100 to 104, Topic No. 3.3, Chapter 3
	Conclusion of the Monitoring (Baseline study) Air, Water & Land		
e	Parameters considered for AAQM	As Below:	Page No.:100

	including project specific parameters.		Topic no.3.3, Chapter No. 3

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Sr. no.	Parameters	Range of Concentrations (µg/m^3)	Remarks
1	PM 10	35-94	Within limit
2	PM 2.5	22-46	Within limit
3	SO2	7-40	Within limit
4	NOx	11-48	Within limit
5	VOC	0.2-4.2	Within limit
6	HCl	0-3.5	Within limit
7	CL_2	BDL	Below detection limit
8	CO	0.2-0.8	Within limit

-

f	Whether the results of AAQM is within the norms prescribed in NAAQS ? If no, give reasons as per EIA report	As Below:	Page No.:105 to 106, Topic no.3.3.1.2, Chapter No. 3
	Yes		
g	Comments for AAQM results w. r. t. NAAQS	As Below:	Page No.:109 to 112, Topic no.3.3.1.2, Chapter No. 3
	Based on data obtained, it could be stated that, during the study period the value of PM10 at monitored locations is ranged between 35-94 µg/m3 while the value PM2.5 fluctuates in the range of 22-46 µg/m3. The value of SO2 and NOx were observed to be in the range of 7-40 µg/m3and 11-48 µg/m3respectively.The value of HCl was observed to be in the range of 0-3.5 µg/m3.The values of Cl2 were found Below Detectable Limit. The value of VOC at monitored locations is ranged between 0.2-4.2 ppm. The values of CO were observed to be in the range of 0.2-0.8 µg/m3. The average concentration of PM10, PM2.5, SO2, NOx and CO is within prescribed limit at all locations These concentrations at all AAQM locations were primarily caused by local phenomena including vehicular movement and natural dusting due to human activities and wind movement.		
h	Software used for the mathematical Modelling for anticipated incremental GLCs (Ground Level Concentrations)	As below	Page No.158, Topic 4.2.2.2, Of Chapter No. 4
	ISCST-3		

i	The resultant concentrations w. r. t. NAAQS and its conclusion.	As below:	Page No.:162
	From the dispersion modeling studies conducted, it was observed that the maximum ground level concentration occurs in the North East direction. The maximum incremental increase in concentration for PM, SO_2 and NO_2 is 1.8591 µg/m^3, 1.5198 µg/m^3 and 1.2324 µg/m^{3}respectively at a distance of about 1 km in the North East direction. Whereas, the maximum incremental increase in concentration for NH_3 and HCl is 0.2819 µg/m3 and 0.0583 µg/m3 at a distance of about 1 km in the East direction.		
j	Suggested mitigation measures w. r. t. Air	As below:	Page No.158
	The HCl and SO_2, will be absorbed in water scrubber followed by alkali scrubber before venting out to achieve GPCB norms and for Ammonia Acid scrubber will be install. Adequate stack height will further help in dispersion of pollutants. Closed feeding and transferring system, proper local and exhaust ventilation and more solvent recovery efficiency will control fugitive emission. The installation of water scrubber followed by carbon absorption tower will control VOC going into the atmosphere. The air quality impact of source is evaluated by use of model. The model simulates the relationship between air pollutants emission, meteorology and air chemistry, all of which are determined by formulating impact scenario		
k	Conclusion of the Monitoring during baseline study of water	As below	Page No.:113
	In view of the above mentioned chemical analysis of groundwater samples reveals that the Temperature varies from 24.9 to 32 °C, pH varies from 6.98 to 8.2,Colour <5, TDS varies from 820-2130 mg/l, Turbidity 0.48 to 1 NTU, Total Hardness varies from 107 to 345 mg/l, Calcium 71 to 190 mg/l, Total Alkalinity varies from 160 to 780 mg/l, Chloride varies from 99 to 890 mg/l, Magnesium varies from 4.6 to 37.7 mg/l, Sulphate varies from 28 to 150 mg/l, Phosphate remain below detection limit, Sodium varies from 58 to 390 mg/l, Fluoride varies from0.1 to 0.86 mg/l, Phenolic compound remains <0.001, Oil & grease remain <0.1mg/l, Dissolve oxygen remain 4 to 7.1 mg/l, COD & BOD remains BDL, Nitrate varies from 9 to 16 mg/l, Iron varies from 0.2 to 0.45 mg/l, Copper, Boron, chromium & Zinc are found BDL,MPN found 10 to 23No/100ml, Silica found 0.52 to 0.82 mg/l The heavy metal contents and TDS are found to be well within the limit. The physico-chemical and biological analysis revealed that all the parameters are well within the prescribed limits of IS: 10500-2012. This water can be used for drinking purpose only after some preliminary treatment.		
l	Suggested mitigation measures w. r. t. Water	As below	Page No.:270

	Unit will proposed to manufacture 31 MT/Month. Total water requirement for industrial as well as domestic will be 20.5 KLD, from which 18.7 KLD will be fresh water (use in 3.7 KLD in Process, 2.5 KLD in washing, 1KLDin scrubber, 1KLD in boiler, 2.5 KLD in cooling tower, 5 KLD in Domestic, 3 KLD in gardening) & Remaining 1.8 KLD will be internally recycle In production process of Benzyl alcohol after distillation for same product. GIDC Jhagadia will supply fresh water. GIDC water permission mentioned in plot allotment letter**.** Total waste water generation will be 14.92 KLD. Bifurcation of that will be as follows: • 4 KLD Sewage will be dispose through soak pit. • 6.9 KLD from process (High Concentrated stream) will be treated into VOC removal reactor followed by evaporator, in that process 0.07 strip solvent generated it will be send to Co-processing / incineration plant and 0.01 MTD evaporation salt will be send to TSDF site. 6.82 Condensed of Single stage evaporator will be send to in house ETP to achieve NCTL discharge norms. • 4.02 KLD waste water (Low concentrated stream generated from Washing-2.5 KLD, Scrub solution-1.4 KLD, Boiler blowdown-0.02KLD, Cooling Tower Blowdown-0.1 KLD) will be directly treated in to in house ETP to achieve NCTL discharge norms.		
m	Conclusion of the Monitoring during baseline study of Land	As below	Page No.:123
	On data obtained, it is ensured that the soil quality at around site is appropriate and no abnormality in terms of soil contaminants is reported.		
n	Suggested mitigation measures w .r. t. Land	As below	Page No.:168 Topic no.4.2.4.2, Chapter No. 4
	The unit has closed hazardous waste storage area with impervious flooring. Transportation of hazardous waste to the TSDF site is governed as per the Hazardous Waste (Management, Handling and Trans Boundary Movement) Rules. Separate collection system is provided for collection of spillage material. Impervious layer, RCC roads and flooring is provided to area, where the chemical storage and handling activities will be involved. Separate storm water collection system is provided to prevent contamination of soil through contaminated water. Hence, there will be no significant adverse impact on land environment due to handling of hazardous solids waste. The unit is following Standard Operating Procedure (SOP) for storing and handling of hazardous wastes		
o	Conclusion of the Monitoring during baseline study of Noise	As below	Page No.:120
	The noise levels during daytime varied from 43-58 dB (A) Leq to 62-73 dB (A) Leq in the study area. The noise level in the study area is within the permissible Limits as per Noise		

	rules 2000. The night time noise level in the study area is in the range of 37-43 dB (A) Leq to 53-52 dB (A) Leq. The night time noise was also within stipulated standards of CPCB		
p	Suggested mitigation measures w. r. t. Noise	As below	Page No.:167
	• Adequate noise control measures such as mufflers, silencers at the air inlet/outlet, anti-vibration pad for equipment with high vibration etc. shall be provided. • Housing/casing shall be provided for all noise generating machines. • Job rotation will reduce exposure to some extent. Moreover, PPE like earmuff and ear plugs will be provided to the operators/worker exposed to high noise. • The proposed green belt will further be helpful in reducing the ambient noise level.		
q	Main issues in Public hearing **(If applicable)**	As below	Not Applicable
r	Brief description of Public hearing **(If applicable)** **Main Issues raised by stake holders** / **Commitments by Project proponent and action plan.** - - - -		
s	Major hazardous chemicals and worst case scenario considered in Risk Analysis report.	As below:	Page No.:198 Chapter-7
	Storage & Handling of hazardous chemicals like Hydrogen, Toluene, Benzene, Methanol, Dimethyl Amine, Bromine, Thionyl Chloride and Dimethyl Sulphate have been considered for Consequence Analysis.		
	Comments/Suggestions/mitigation measures in brief	As below:	Page No.:234 Topic no.7.4, Chapter No. 7
	Flash Fire, UVCE Scenarios and Late Pool: • In case of release of Benzene vapour travels to the farthest distance (15.92 m) in 1.5/D weather condition. If it gets a source of ignition within this radius, it will create UVCE (Unconfined vapour cloud explosion) and effects of overpressure (0.02068 bar) would be		

	felt up to 25.71 mt in 1.5/F weather condition. • Evacuation plan to be designed considering the worst case scenario of benzene as mentioned above. • In case of release of Benzene in 5/D weather condition for 4 KW/m_2 radiation level of Late pool fire is 15.66mt. • **Toxic Release Scenarios:** • Dispersion of Bromine covers more distance in case of IDLH concentration (3 ppm) that is 9 mt. • Evacuation plan to be designed considering the worst case scenario of the same. • **Recommendations:** • Evacuation routes shall be planned such that alternate route is available from any corner in more than one direction. • Extra precautions to be taken in unloading of flammable/toxic chemicals. The details of precautions during storage handling and transportation of chemicals have been given in separate paragraph. • Fire fighting arrangements shall be provided as per the guidelines of OISD. Details on hazard identification i.e. HAZOP, HAZAN, Fault tree analysis, Event tree analysis, Checklist Audit, safety audit and their compliance, etc. to be adopted for the safe operation of plant at appropriate stage		
t	An undertaking by the Project Proponent (PP) on the ownership of the EIA report as per the OM of MoEF&CC dated 05/10/2011 and an undertaking by the Consultant regarding the prescribed TORs have been complied with and the data submitted is factually correct as per the OM of MoEF&CC dated 04/08/2009.	undertaking by the Project Proponent attached as annexure- 5 undertaking by the Consultant is attached as annexure- 11	Page No. 338 & Page No.331
u	Any other details:		
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7. Details of Environmental Consultant:

Sr. no.	Particulars	Details
i	Name of the Consultant	Jyoti Om Chemical Research Centre Pvt. Ltd.
ii	Contact no. and e-mail ID of the Consultant	Mo. no. : 9824150383
		e-Mail: info@jyotiom.com
iii	Accreditation for the categories and	High Court Stay Order

	Validity	
iv	Any other details	----

Name & designationof the Applicant Divyesh R. Nagoriya (Partner)

Stamp & Signature of Applicant:

Date: 06/05/2019

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