

To,

The APCCF, Regional Office, Ministry of Environment & Forests (SZ),
Kendriya Sadan, IV Floor, E & F wings, 17th main Road,
Koramangala II Block, Bangalore - 560034.

Sub: Environment Clearance Compliance Report for Epsilon Carbon Private Limited.

Ref: Environmental Clearance regarding - F.NO. IA-J-1101/500/2017-IA-II (I) Dated 7th July 2021.

Dear Sir,

This has reference to the Environmental clearance received on 7th July 2021.

We are hereby submitting the EC compliance report from January to September 2022.

Kindly acknowledge the same.

Thanking you.

Yours faithfully,

For **Epsilon Carbon Private Limited**

Authorized Signatory

CC -

- 1) The Member Secretary State Level Environment Impact Assessment Authority, Room No. 706, 7th Floor, 4th Gate, M.S.Building, Bangalore - 560001.
- 2) The Secretary, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi - 110003.
- 3) The Member Secretary, Karnataka State Pollution Control Board, Bangalore.
- 4) The Member Secretary, Central Pollution Control Board, New Delhi.
- 5) CPCB Zonal Office, 1st & 2nd Floors, Nisarga Bhavan, A-Block, Thimmaiah Main Road, Bangalore.
- 6) Environmental Officer, Karnataka State Pollution Control Board, Bellary.

भारतीय डाक

EK331429138IN IVR:6975331429138
SP SHANKAR HILL TOWN COLONY S.O. <583153>
Counter No:1,30/11/2022,10:11
To:THE APCCF REG,MINISTRY OF ENVI
PIN:560034, Koramangala S.O
From:EPSILON CAR,SULTANPUR RD
Wt:103gms
Amt:47.20(Cash)Tax:7.20
<Track on www.indiapost.gov.in>
<Dial 18002666868> <Wear Masks, Stay Safe>

India Post

भारतीय डाक

EK331429169IN IVR:6975331429169
SP SHANKAR HILL TOWN COLONY S.O. <583153>
Counter No:1,30/11/2022,10:11
To:THE MEMBER SE,ENVIRONMENT INPA
PIN:560001, Bengaluru G.P.O.
From:EPSILON CAR,SULTANPUR RD
Wt:103gms
Amt:47.20(Cash)Tax:7.20
<Track on www.indiapost.gov.in>
<Dial 18002666868> <Wear Masks, Stay Safe>

India Post

भारतीय डाक

EK331429141IN IVR:6975331429141
SP SHANKAR HILL TOWN COLONY S.O. <583153>
Counter No:1,30/11/2022,10:11
To:CPCB ZONAL OF,NISARGA BHAVAN
PIN:560075, Basaveshwaramagar S.O
From:EPSILON CAR,SULTANPUR RD
Wt:103gms
Amt:47.20(Cash)Tax:7.20
<Track on www.indiapost.gov.in>
<Dial 18002666868> <Wear Masks, Stay Safe>

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भारतीय डाक

EK331424498IN IVR:6975331424498
SP SHANKAR HILL TOWN COLONY S.O. <583153>
Counter No:1,30/11/2022,10:11
To:THE SECRETARY,MINISTRY OF ENVI
PIN:110003, Lodi Road HO
From:EPSILON CAR,SULTANPUR RD
Wt:103gms
Amt:70.80(Cash)Tax:10.80
<Track on www.indiapost.gov.in>
<Dial 18002666868> <Wear Masks, Stay Safe>

India Post

भारतीय डाक

EK331429155IN IVR:6975331429155
SP SHANKAR HILL TOWN COLONY S.O. <583153>
Counter No:1,30/11/2022,10:11
To:THE MEMBER SE,KARNATAKA STATE
PIN:560001, Bengaluru G.P.O.
From:EPSILON CAR,SULTANPUR RD
Wt:111gms
Amt:47.20(Cash)Tax:7.20
<Track on www.indiapost.gov.in>
<Dial 18002666868> <Wear Masks, Stay Safe>

India Post

भारतीय डाक

EK331424507IN IVR:6975331424507
SP SHANKAR HILL TOWN COLONY S.O. <583153>
Counter No:1,30/11/2022,10:11
To:THE MEMBER SE,CENTRAL POLLUTIO
PIN:110032, Shahdara SO
From:EPSILON CAR,SULTANPUR RD
Wt:103gms
Amt:70.80(Cash)Tax:10.80
<Track on www.indiapost.gov.in>

India Post

Compliance to the Conditions of Environment clearance granted for expansion of Coal Tar Distillation Plant from 300000 TPA & Setting up of Carbon Black plant of capacity 300000 TPA by M/s Epsilon Carbon Private Limited (ECPL) at Musinayakahalli, Taluk Sandur, Dist Ballari, Karnataka granted vide EC No. F.No.J-11011/500/2017-IA-II (I) dated 10.01.2020

Sl.No	EC Conditions	Remarks - Latest Status as on 30 SEPTEMBER 2022
10.a	Necessary permission as mandated under the water (prevention & Control of Pollution) Act 1974, & the Air (Prevention & Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the state pollution Control Board.	All the necessary and Statutory Clearances and Permissions such as Consent from Pollution Control Board has been already obtained. CFO: AW 328147, validity till 30.06.2026 and issued on 18.11.2021 and HW Authorization No: 332259, validity till 30.06.2026 and issued on 14/07/2022. Details in Annexure-1
10.b	As already committed by the project proponent, Zero Liquid discharge shall be ensured and no waste/treated water shall be discharged out side the premises.	Complied Company owns complete Zero Liquid Discharge (ZLD) Facility. To treat Industrial Effluents, company is having adequate operations and systems like: ETP's, RO Plants, MEE, ATFD and STP. Details in annexure-1
10.c	Necessary authorization required under the hazardous & other wastes (Management & Trans Boundary Movement) Rules, 2016. Solid waste management Rules, 2016, shall be obtained & the provisions contained in the rules shall be strictly adhered to.	We have valid HW Authorization No: 332259, validity till 30.06.2026 and issued on 14/07/2022. We have Membership and Agreement with Karnataka Waste Management Project (Re Sustainability - A Division of Ramky Enviro Engineers Ltd.) for HW Disposal, the Membership Number - 742. Details in annexure-1
10.d	National Emission standards for Petrochemicals (Basic & Intermediates) issued by the Ministry vide G S R 820 dated 9th November, 2012 as amended time to time shall be followed.	Company was following & abide with National Emission Standards related to Petrochemicals industries. We have provided adequate APCM for all the Stacks. Stack Monitoring of all the Parameters were being carried out periodically. We are submitting the Analysis Reports to the KSPCB on monthly basis. The summary of the past Six month enclosed in the Annexure -1
10.e	Crude Coal Tar shall be transported through dedicated pipeline from M/s JSW Coke Oven plant to the project proponent's storage tanks.	The work is under progress. The design part is completed, however the unprecedented COVID -19 lead to major shortage of Manpower and other Logistics issues in our region, impacting this project work.
10.f	No raw material / solvents prohibited by the concerned regulatory authorities from time to time shall be used.	Abiding with the Regulatory norms on the usage of such Raw materials and Solvent.
10.g	To control source & the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and / or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB / SPCB guidelines. Bag Filter (PTFE/ pulse jet) shall be installed to control the emissions	Measures such as Bag filters and Scrubbers of adequate capacity are installed to control the Stack Emissions and Adequate Stack height has been designed as per the CPCB guidelines. All Roads/Drains/Pits are concreted to avoid the Fugitive emissions.



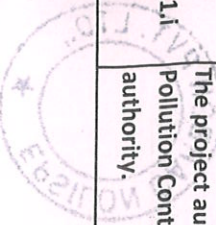
10.h	Total fresh water requirement shall not exceed 8520 cum/day, proposed to be met from JSW steel water network. Prior permission in this regard shall be obtained from the concerned regulatory authority before diverting the water from the quantum allotted the M/s JSW steel	The source of the Water supply comes from JSW Steel Water network, as mentioned we are consuming the Water well below our approval limit as per the CFO.
10.i	Rainwater harvesting system shall be set in the premises & Water shall be used for various industrial purpose in the unit.	Rain Water Harvesting System in place and the collected water was Reused for Process and Garden purpose.
10.j	Process effluent / any wastewater shall not be allowed to mix with the storm water .The storm water from the premises shall be collected & discharged through a separate conveyance system.	We provided Sluice Gate Valves in Drain channels to divert any spillage into the Spillage Collection system which was connected with collection sump, from there we transfer to the Waste Water Treatment Plant- WWTP. Rainwater was collected through separate storm water pipeline to prevent any contamination for safe discharge.
10.k	Hazardous Chemicals shall be stored in tanks, tank farms , drums , carboys etc., Flame arrestor shall be provided on the tank farm, and solvent transfer through pumps.	All the Chemicals are stored in the dedicated Storage Tanks in the Tank Farm area which are fitted with appropriate Safe systems and Scrubbers.
10.l	The Company shall strictly comply with the rules & guidelines under Manufacture, Storage & import of Hazardous Chemicals (MSHHC) rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor vehicle Act (MVA) ,1989	Complied. We are using the dedicated vehicle with associate of Ramky Enviro (Re Sustainability) to transport the Hazardous Waste/Chemicals.
10.m	Fly ash should be stored separately as per CPCB guidelines so that it may not adversely affect the air quality .Direct exposure of workers to fly ash & dust should be avoided .Brick manufacturing unit shall be set up in the premises for effective utilization of the ash.	We are using the by product of Mixed and Lean/Tail gas as Energy source, Fly Ash is not generated in the unit.
10.n	The Company shall under take waste minimisation measures as below:- 1.Metering & Control off quantities of active ingredients to minimise waste. 2.Reuse of by- products from the process as raw materials or as raw material substitutes in other process. 3. Use of automated filling to minimise spillage 4. Use of Close feed system into batch reactors. 5.Venting equipment through Vapour recovery system 6. Use of High pressure hoses for equipment cleaning to reduce waste water generation.	Site has adopted RRR (Reduce, Reuse, Recycle) Waste Minimisation Program, under this all the below mentioned conditions will be taken as Objectives to minimise the Waste generation. 1. All the Chemical handling will be done in closed loops system. 2. The manufacturing process is designed to utilise the Intermediates within the system only. 3. Automated filling has been implemented to the possible extent based on the nature of our products. 4. Vapor recovery system installed to recover the valuable chemicals for reuse/recycle. 5. High pressure jet cleaning is used for equipment cleaning process. 6. We Recycle back the Coal tar sludge to Coke oven.



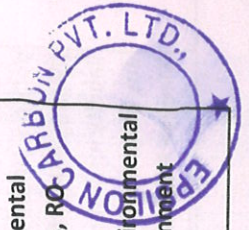
10.o	<p>The green belt of at least 5 to 10 meter width shall be developed in nearly 35% of total project area, mainly along the plant periphery, in downward wind direction , & along road sides etc.,. Selection of plant species shall be as per the CPCB guidelines, in consultation with the state Forest department. Green belt shall be increased with plantation of additional two rows along the existing green belt.</p>	<p>Green Belt Development of over 33% of the Plant area has been completed with a total of 7739 Tree saplings & 25960 Shrubs are already been planted till date. Local Species are chosen for developing Greenbelt. Refer Annexure-2</p>
10.p	<p>All the commitments made to the public during public consultation / hearing shall be satisfactorily implemented.</p>	<p>ECPL has engaged BIMTECH, New Delhi to study the needs and priorities of the nearby communities of our project site to develop our Sustainable CER and CSR projects to address the Public Hearing commitments.</p> <p>ECPL has prioritized the needs & aspirations of the Communities and developed the CER Plan & got approved from Deputy Commissioner of Bellary District on August 31st, 2020. Enclosed Annexure -1</p> <p>CSR focus for 2020 -22: Sports, Health -Covid Relief activities, Women Empowerment, Education and Community support we have spent 283 lakhs, for CER budget of Rs 700 lakhs out of which 222.05 lakhs have spent.</p>
10.q	<p>As committed Rs 10 crore shall be allocated for Corporate Environment Responsibility (CER).The CER funds shall be utilized for meeting the issues suggested during public hearing. The CER plan shall be completed before commissioning of the Expansion project.</p>	<p>CER Projects Proposed to spend Rs 700 lakhs for next five years as directed by District collector- approved DC plan enclosed within annexure -3</p> <ol style="list-style-type: none"> 1. Solid waste Management 2. Construction of CC road, drainage at Sultanpur village 3. Tree plantation & wildlife conservation 4. Health care 5. Support for Govt. health institutions of Bellary to combat COVID-19 pandemic. 6. Education 7. Centralized solar street lighting system 8.CER budget of Rs 700 lakhs out of which 222.05 lakhs have spent.
10.r	<p>For the DG sets, emission limits & stack height shall be in conformity with the extant regulation & CPCB guidelines.Acoustic enclosure shall be provided to DG set for controlling the noise pollution.</p>	<p>Stack Height and Acoustic Enclosures has been designed and constructed as per the CPCB emission limits and guidelines. We are periodically monitoring the DG Stack parameters and we are submitting the Analysis report to the KSPCB.</p>
10.s	<p>The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.</p>	<p>Each Manufacturing Unit is installed with dedicated Fire Fighting system as per the State Fire and Rescue Department requirements.</p>



10.t	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the factories act. workers shall be provided with adequate safety kits/mask for protection from carbon black/ coal tar dust ,if any ,occur in the factory.	Pre Employment Medical check-up and regular Half-yearly Medical surveillance was being done as per the Factories Act and Form NO. 16 is also being maintained. Workers are provided with PPE's and Bath House facility with laundry to maintain Health and Hygiene
10.u	Continuous online (24*7) monitoring system for stack emission shall be installed for measurement of flue gas discharge and the pollutants concentration , and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.	CEMS Systems commissioning work has been completed and the Servers are Online connected to the CPCB Servers respectively.Enclosed Annexure -1
10.v	A separate environmental cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior executive who will directly report to the head of the organization.	To lead the Environmental Developments, a separate Environmental cell was set up with qualified personnel as part of the Health Safety and Environmental Function which will report to the Factory Manager.
10.w	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the ministry/regional office along with the six monthly compliance report.	EMP has been developed as recommended with responsibility matrix and it has been approved with competent authority. Company assures that the committed fund will be utilised only for environmental developments and the compliance report will be submitted as recommended. Capital cost of Rs 3700 Lakhs are allocated for implementation of Environmental protection measures and company spend 1200 lakhs for systems like: ETP's, RO Plants, MEE ,ATFD and STP . Recurring cost of Rs 150 lakhs per annum are allocated for operation of Environmental protection measures. We spent Rs 35.46 lakhs as Recurring costs for environment management / pollution control measures.
11	The project proponent shall strictly comply the sector specific conditions as mentioned in the ministry's office memorandum No.22-34/2018 IA.III, dated 9 th August, 2018. the said OM is available at the ministry's website . The grant of environmental clearance is further subject to compliance of other generic condition as under:	We are abiding by the conditions.
11.1	The project authorities must strictly adhere to the stipulations made by the state Pollution Control Board (SPCB), state Government and / or any other statutory authority.	We are abiding by the conditions.



11.ii	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment , Forest & Climate Change.Incase of deviations or alternations in the project proposal from those submitted to this ministry for clearance, a fresh reference shall be made to the ministry to assess the adequacy of conditions imposed & to add additional environmental protection measures required, if any.	Will be complied accordingly when required.
11.iii	The locations of ambient air quality monitoring stations shall be decided in CONSULTATION WITH THE STATE Pollution Control Board (SPCB) & it shall be ensured that at least one stations each is installed in the upwind & downwind direction as well as where maximum ground level concentrations are anticipated.	Onsite & Offsite Ambient Air Quality Monitoring has been carried out monthly (48hrs Sampling) as consulted with KSPCB. Third party monitoring and analysis also being done by NABL approved laboratory M/s. Netel India Limited (Certificate No. TC-6709).
11.iv	The National Ambient Air Quality Emission Standards issued by the ministry vide G.S.R.No 826€ dated 16th November , 2009 shall be complied with.	Ambient Air Quality Monitoring at the site and at the nearest villages has been carried out regularly by MoEF&CC recognized laboratory, as per the norms prescribed by MoEF&CC, GOI. The results are attached (Annexure 3) and the AAQM results are within the prescribed limits of NAAQ norms by CPCB.
11.v	The overall noise levels in & around the plant area 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 conform to the standards prescribed under Environment (Protection) Act, 1986 Rules , 1989 Viz dBA (day time) & 70 dBA (night Time)	All the High Noise generating equipment's are provided with Acoustic Enclosures/Noise reduction devices. The Noise level monitoring is carried out regularly at the Work places and the levels are maintained below the prescribed norms. The employee working at high noise areas were provided with suitable PPE'S.
11.vi	The Company shall harvest rainwater from the rooftops of the building to recharge ground water, and to utilize the same for different industrial operations within the plant.	Rooftop Rainwater collection system is in place which includes the Water Harvesting unit, Water collection tank, Transfer pump with well routed pipeline to transfer the water to the gardening networks.
11.vii	Training shall be imparted to all employees on safety & health aspects of chemicals handling - employment & routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of Chemicals shall be imparted.	Training Calendar has been developed and Trainings are being conducted based on the Safety, Health and Environmental Skill Matrix and EMP. Routine Periodical Medical Examinations (PME) were being carried out for all the employees every six months. Trainings need assessment outcomes.
11.viii	The company shall comply with all environmental protection measures & safeguards proposed in the documents submitted to the ministry. All the recommendations made in the EIA / EMP in respect of environmental management, risk mitigation measures & public hearing shall be implemented.	Being implemented. Capital cost of Rs 3700 Lakhs are allocated for implementation of Environmental protection measures and company spend 1200 lakhs for systems like: ETP's, RO Plants, MEE ,ATFD and STP . Recurring cost of Rs 150 lakhs per annum are allocated for operation of Environmental protection measures. We spent Rs 35.46 lakhs as Recurring costs for environment management / pollution control measures.



11ix	The company shall undertake all measures for improving socio - economic conditions of the surrounding area's activities shall be undertaken by involving local villagers, administration & other stake holders. Also eco - developmental measures shall be undertaken for overall improvement of the environment.	ECPL has engaged BIMTECH, New Delhi to study the needs and priorities of the near-by communities of our project site to develop our Sustainable CER and CSR projects to address the Public Hearing commitments. CSR focus for 2020 -21: Sports, Health-Covid Relief activities, Women Empowerment, Education and Community support with budget of Rs 96.90 lakhs out of which 96.90 lakhs have been spent and for 2021-22 out of Rs 174 lakhs budget 35.37 lakhs have been spent.
11.x	A separate environmental management cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	A separate Environmental Management Cell exists. Operation and Monitoring the parameters of Effluent samples will be tested in house. The remaining Environmental Monitoring and testing is currently being outsourced to reputed NABL accredited laboratories.
11.xi	The company shall earmark sufficient funds towards capital cost & recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest & Climate changes well as the State government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management / pollution control measures shall not be diverted for any other purpose	We spent Rs 35.37 lakhs as Recurring costs for Environment Management/ Pollution Control measures and allotted Environment fund was used for right purpose.
12	The Ministry reserves the right to stipulate additional condition, if found necessary at subsequent stages and the project proponent shall implement all the said condition in a time bound manner. The ministry may revoke or suspend the environmental clearance, if implementation of any of the above condition is not found satisfactory	Noted
13	Concealing factual data or submission of false / fabricated data and failure to comply with any of the condition mentioned above may result in the withdrawal of the clearance and attract action under the provision of Environment(Protection) act, 1986	Assures to maintain the integrity in all aspects.
14	An appeal against the Environmental Clearance shall lie with the National Green Tribunal, if preferred, within the period of 30days as prescribed under section 16 of the National Green Tribunal Act 2010	Noted
15	The above conditions will be enforced intra-alia under the provision of water/(Prevention and control pollution) Act 1974, the air/(Prevention and control of pollution) Act 1981, the environment protection Act 1986, the hazardous waste (Management, handling and transboundary movement) rules 2016 and the public liability insurance act 1991 read with the subsequent amendments there in an also any other orders passed by the Hon'ble Supreme Court of India / High Court of Madhya Pradesh / Hon'ble NGT and any other Court of Law relating subject matter	Noted





**Consent For Operation
(CFO-Air,Water)**

Consent No. AW-328147
Valid upto: 30/06/2026

Karnataka State Pollution Control Board
Parisara Bhavana, No.49, Church
Street, Bengaluru-560001
Tele : 080-25589112/3, 25581383
Fax: 080-25586321
email id: ho@kspcb.gov.in

Industry Colour: RED Industry Scale: LARGE

(This document contains 7 pages including annexure & excluding additional conditions)

Combined Consent Order No. AW-328147 PCB ID: 27448 Date: 18/11/2021

Combined consent for discharge of effluents under the Water (Prevention and Control of Pollution) Act, 1974 and emission under the Air (Prevention and Control of Pollution) Act, 1981

- Ref: 1. Application filed by the applicant/organization on 14/09/2021
2. Inspection of the Industry/organization/by RO, on 08/09/2021
3. Proceedings of the ECM dated 06/11/2021, held on 30/10/2021

Consent is hereby granted to the Occupier under Section 25(4) of the Water (Prevention & Control of Pollution) Act, 1974 (herein referred to as the Water Act) & Section 21 of Air (Prevention & Control of Pollution) Act, 1981. (herein referred to as the Air Act) and the Rules and Orders made there under and authorized the Occupier to operate /carryout industry/activity & to make discharge of the effluents & emissions conforming to the stipulated standards from the premises mentioned below and subject to the terms and conditions as detailed in the Schedule Annexed to this order.

Location:

Name of the Industry: M/s. Epsilon Carbon Private Limited (ECPL)
Address: Sy. No. 19, 20, 21, 22/1, 22/2, 23, 24, 26, 27, 28/1, 28/2, 29/1, 29/2, 29/3, 30/2, 31, 32/1, 32/2, 32/3, 33, 34/2, 34/3, 41, 44/1, 44/2 & 45, Musinayakanahalli Village, Sandur Taluk, Ballari District
Industrial Area: Not In I.A., Musinayakahalli,
Taluk: Sanduru, District: Bellary

CONDITIONS:

a) Discharge of effluents under the Water Act:

Sr	Water Code	WC(KLD)	WWG(KLD)	Remark
1	Boiler Feed	816.000	46.000	CT and CB -fresh Water will be used as boiler feed. The Discharge water after treatment in ETP of Cap 180 and 50 KLD will be used for green belt development. green belt development.
2	Cooling Water	1152.000	36.000	CT water will be sourced from JSW steel ltd, the same will be treated and discharge for gardening
3	Domestic Purpose	60.000	50.000	CT and CB Water will be sourced from JSW Steel Ltd for this proposal. Discharge water treated in 25 and 50 KLD STP will be used for gardening
4	Manufacturing Processes	1324.000	12.000	CT primary/sec raw storage tank moisture /RO reject all water is treated in exiting ETP and CB reactor primary/sec quench/pelletizer /binder prep /, no waste water generation.
5	Others	86.000	68.000	CT process coal moisture released /CB washing DMF/Reactors/floor and taken back to effluent treatment plant and after this it is reuse

b) Discharge of Air emissions under the Air Act from the following stacks etc.

Sl. No.	Description of chimney/outlet	Limits specified refer schedule
The details of Sources, control equipments and its specification, type of fuel, constituents to be controlled in emissions etc. are detailed in Annexure-II.		





**Consent For Operation
(CFO-Air,Water)**

Consent No. AW-328147
Valid upto: 30/06/2026

Karnataka State Pollution Control Board
Parisara Bhavana, No.49, Church
Street, Bengaluru-560001
Tele : 080-25589112/3, 25581383
Fax:080-25586321
email id: ho@kspcb.gov.in

Industry Colour: RED Industry Scale: LARGE

(This document contains 7 pages including annexure & excluding additional conditions)

The consent for operation is granted considering the following activities/Products;

Sr	Product Name	Applied Qty/Month	Unit
1	Ammonical Water of capacity 90 TPA	0.000	TON
2	Anthracene Oil/ Heavy Creosote Oil of capacity 42,000 TPA	0.000	TON
3	Carbon Black of capacity 1,15,000 TPA	0.000	TON
4	Carbon Black Oil (CBO) of capacity 70,000 TPA	0.000	TON
5	Coal Tar Pitch of capacity 1,53,000 TPA	0.000	TON
6	De-hydrated Coal Tar of capacity 2,91,000 TPA	0.000	TON
7	Lean gas/Tail gas of capacity 1,03,500 cum/month	0.000	CBM
8	Light Oil of capacity 6,000 TPA	0.000	TON
9	Naphthalene of capacity 18,000 TPA	0.000	TON
10	Neutral Sodium Phenolate (14%) of capacity 15,300 TPA	0.000	TON
11	NSF of capacity 33,000 TPA	0.000	TON
12	Phenol Oil of capacity 6,000 TPA	0.000	TON
13	Wash Oil of capacity 25,500 TPA	0.000	TON
14	Zero QI / Impregnated Pitch of capacity 6,000 TPA	0.000	TON

This consent is valid for the period from 01/07/2021 to 30/06/2026

To,

M/s. Epsilon Carbon Private Limited (ECPL)
Musinayakanahalli, Sandur
Taluk, Ballari District.

COPY TO:

The Environmental Officer, KSPCB, Regional Office Bellary for information and necessary action.

2. Master Register.
3. Case file.

Consent Fee paid : Rs. 23285014

SCHEDULE

TERMS AND CONDITIONS

A. TREATMENT AND DISPOSAL OF EFFLUENTS UNDER THE WATER ACT.

1. The discharge from the premises of the occupier shall pass through the terminal manhole/manholes where from the Board shall be free to collect samples in accordance with the provisions of the Act/Rules made there under.

2(a). The sewage/domestic effluent shall be treated in septic tank and with soak pit. No overflow from the soak pit is allowed. The septic tank and soak pit shall be as per IS 2470 Part-I & Part-II.

2(b). The treated sewage effluent discharged shall conform to the standards specified in Annexure-I.

3(a). The trade effluent generated in the industry shall be treated in the ETP and treated effluent shall conform to the standards stipulated by the Board in Annexure-I

3(b). The trade effluent shall be handed over to CETP and maintain logbook of effluent generated & sent every day.





**Consent For Operation
(CFO-Air,Water)**

Consent No. AW-328147
Valid upto: 30/06/2026

Industry Colour: RED Industry Scale: LARGE

Karnataka State Pollution Control Board
Parisara Bhavana, No.49, Church
Street, Bengaluru-560001
Tele : 080-25589112/3, 25581383
Fax:080-25586321
email id: ho@kspcb.gov.in

(This document contains 7 pages including annexure & excluding additional conditions)

4. The applicant shall install flow measuring/recording devices to record the discharge quantity and maintain the record.
5. The applicant shall not change or alter either the quality or the quantity or the place of discharge or temperature or the point of discharge without the previous consent/ permission of the Board.
6. The applicant shall not allow the discharge from the other premises to mix with the discharge from his premises. Storm water shall not be allowed to mix with the effluents on the upstream of the terminal manhole where the flow measuring devices are installed.
7. The daily quantity of domestic effluent and trade effluent from the industry shall not exceed the limits as indicated in this consent order:
8. The applicant shall discharge the effluents only to the place mentioned in the Consent order and discharge of treated/untreated outside the premises is not permitted.

B. EMISSIONS:

1. The discharge of emissions from the premises of the applicant shall pass through the air pollution control equipment and discharged through stacks/chimneys mentioned in **Annexure-II** where from the Board shall be free to collect the samples at any time in accordance with the provisions of the Act and Rules made there under. The tolerance limits of the constituents forming the emissions in each of the stacks shall not exceed the limits laid down in Annexure-II.
2. The applicant shall provide port holes for sampling of emission, access platforms for carrying out stack sampling, electrical points and all other necessary arrangements including ladder as indicated in Annexure-II.
3. The applicant shall upgrade/modify/replace the control equipment with prior permission of the Board.

C. MONITORING & REPORTING:

1. The applicant shall get the samples of effluents & emissions collected and get them analyzed once a month/either by in house monitoring laboratory or through EP approved laboratories for the parameters as Indicated in Annexure I & II.
2. The applicant shall maintain log books to reflect the working condition of pollution control systems and also self monitoring results and keep it open for inspection.

D. SOLID WASTE (OTHER THAN HAZARDOUS WASTE) DISPOSAL:

1. The applicant shall segregate solid waste from Hazardous Waste, Municipal Solid Waste and store it properly till treatment/disposal without causing pollution to the surrounding Environment.
2. The solid waste generated shall be handled & disposed by scientific method without causing eye sore to the general public and to the surrounding environment.





**Consent For Operation
(CFO-Air,Water)**

Consent No. AW-328147
Valid upto: 30/06/2026

Karnataka State Pollution Control Board
Parisara Bhavana, No.49, Church
Street, Bengaluru-560001
Tele : 080-25589112/3, 25581383
Fax:080-25586321
email id: ho@kspcb.gov.in

Industry Colour: RED Industry Scale: LARGE

(This document contains 7 pages including annexure & excluding additional conditions)

E. NOISE POLLUTION CONTROL:

The applicant shall ensure that the ambient noise levels within its premises during construction and during operational period shall not exceed w.r.t Area/Zone as per Noise Pollution (Regulation and Control) Rules, 2000 as mentioned below:-

- In Industrial Area 75 dB(A) Leq during day time and 70 dB(A) Leq during night time.
- In Commercial Area 65 dB(A) Leq during day time and 55 dB(A) Leq during night time.
- In Residential Area 55 dB(A) Leq during day time and 45 dB(A) Leq during night time.
- In Silence Zone 50 dB(A) Leq during day time and 40 dB(A) Leq during night time.

Note: - * Day time shall mean 6 am to 10 pm and Night time shall mean 10 pm to 6 am.

- * dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
- * A "decibel" is a unit in which noise is measured.
- * "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
- * Leq: It is an energy mean of the noise level over a specified period.

F. HAZARDOUS AND OTHER WASTES (MANAGEMENT & TRANSBOUNDARY MOVEMENT) Rules 2016:

The applicant shall comply with the provisions of the Hazardous and other Wastes (Management & Transboundary Movement) Rules 2016.

G. GENERAL CONDITIONS:

- The applicant shall not allow the discharge from the other premises to mix with the discharge from his premises.
- The applicant shall promptly comply with all orders and instructions issued by the Board from time to time or any other officers of the Board duly authorized in this behalf.
- The applicant shall set-up Environmental Cell comprising of qualified and competent personnel for complying with the conditions specified.
- The Board reserves the right to review, impose additional conditions, revoke, change or alter terms and conditions of this consent.
- The applicant shall forthwith keep the Board informed of any accidental discharge of emissions/effluents into the atmosphere in excess of the standards laid down by the Board. The applicant shall also take corrective steps to mitigate the impact.
- The applicant shall provide alternate power supply sufficient to operate all Pollution control equipments.
- The entire premises shall always be kept clean. The effluent holding area, inspection chambers, outlets, flow measuring points should made easily approachable.
- The applicant shall display the consent granted in a prominent place for perusal of the inspecting officers of the Board.
- The applicant his heirs, legal representatives or assignee shall have no claims what so ever to the continuation or renewal of this consent after expiry of the validity of consent.





**Consent For Operation
(CFO-Air,Water)**

Consent No. AW-328147
Valid upto: 30/06/2026

Industry Colour: RED Industry Scale: LARGE

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Parisara Bhavana, No.49, Church
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(This document contains 7 pages including annexure & excluding additional conditions)

10. The applicant shall make an application for consent for subsequent period at least 45 days before expiry of this consent.
11. The applicant shall develop and maintain adequate green belt all around the periphery.
12. The applicant shall provide rain water harvesting system and shall provide proper storm water management system.
13. This consent is issued without prejudice to any Court Cases pending in any Hon'ble Court
14. The applicant shall furnish the Environmental statement for every financial year ending with 31st March in Form-V as per Environment (Protection) Rules, 1986. The statement shall be furnished before the end of September.
15. The applicant shall display flow diagram of the pollution control system near the pollution control system/s.

NOTE:

The Conditions A[3(a), 3(b)] mentioned in the schedule are not applicable.

Additional Conditions:

1) This Consent for Operation is issued after approval by Chairman and MS for the operation of Coal tar Distillation of capacity 3,00,000 TPA and Carbon Black of capacity 1,15,000 TPA under the Water Act and the Air Act for the period from 01.07.2021 upto 30.06.2026. 2) The applicant shall comply with conditions as mentioned in Annexures -I, II, II(a) & III attached herewith.

Chimney No.	Chimney attached to	Capacity/ KVA Rating	Minimum chimney height to be provided above ground level (in Mts)	Constituents to be controlled in the emission	Tolerance limits mg/NM3	Fuel	Air pollution Control equipment to be installed, in addition to chimney height as per col.(4)	Date of which air pollution control equipments shall be provided to achieve the stipulated tolerance limits and chimney heights conforming to stipulated heights.
1	Gas Exits	CB Flare unit for lean gas burning	50	PM(mg/NM3),SO2 (PPM),NOx(PPM)	NA,NA,NA		N.A	Before commissioning.
2	Other....	CB PBC2 stack	40	PM(mg/NM3),SO2 (PPM),NOx(PPM)	NA,NA,NA		N.A	Before commissioning.
3	Other....	CB PBC1 stack	40	PM(mg/NM3),SO2 (PPM),NOx(PPM)	0,0--,0--		N.A	Before commissioning.
4	Raw Silo	CT - K - 7602 Exhaust Gas Cleaning Tower to Pitch tank storage Unit	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	100,0,0	VOC	N.A,PRT	Before commissioning.





**Consent For Operation
(CFO-Air,Water)**

Consent No. AW-328147
Valid upto: 30/06/2026

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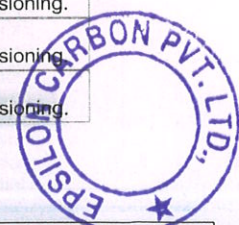
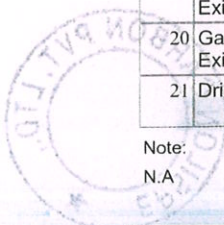
Industry Colour: RED Industry Scale: LARGE

(This document contains 7 pages including annexure & excluding additional conditions)

5	D.G. Sets	CB - D G Set - 1250 KVA - 2 No's	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	80,50,50	DIE	AEC,MUL,S CR	Before commissioning.
6	Boiler +T.F.H	CT-Thermic fluid Heater-2	35	PM(mg/NM3),SO2 (PPM),NOx(PPM)	50,00,00	LEA	N.A,PRT	Before commissioning.
7	Boiler +T.F.H	CT-Thermic fluid Heater-1	35	PM(mg/NM3),SO2 (PPM),NOx(PPM)	100,00,00	LEA	N.A,PRT	Before commissioning.
8	Boiler	CT-Boiler	48	PM(mg/NM3),SO2 (PPM),NOx(PPM)	50,00,00	LEA	N.A,PRT	Before commissioning.
9	Reaction Vessels	CT-Raw Material Tank K-7701 Exhaust gas cleaning tower	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	100,00,00	VOC	SCR	Before commissioning.
10	Reaction Vessels	CT-K-9302 Scrubber (Modified Pitch)	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	100,00,00	VOC	PRT,SCR	Before commissioning.
11	Vacuum System	CT-K-7104 Exhaust gas cleaning towerCT and IT	19	PM(mg/NM3),SO2 (PPM),NOx(PPM)	100,00,00	VOC	PRT,SCR	Before commissioning.
12	Reaction Vessels	CTK-7601 Scrubber (Pitch Forming)	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	100,00,00	VOC	PRT,SCR	Before commissioning.
13	Not Applicable	CT-Modified Pitch Furnace	35	PM(mg/NM3),SO2 (PPM),NOx(PPM)	100,50,50		N.A	Before commissioning.
14	Furnace	CT-Coal tar tube Furnance	35	PM(mg/NM3),SO2 (PPM),NOx(PPM)	50,00,00	LEA	N.A,PRT	Before commissioning.
15	Furnace	CT-Naphthalene Tube Furnace	35	PM(mg/NM3),SO2 (PPM),NOx(PPM)	50,00,00	LEA	N.A,PRT	Before commissioning.
16	D.G. Sets	CT - D G Set - 1250 KVA	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	80,50,50	DIE	AEC	Before commissioning.
17	Vacuum System	CT-De Dusting Stack no. 1Naphthalene	21	PM(mg/NM3),SO2 (PPM),NOx(PPM)	0,0,100	PM	DUS	Before commissioning.
18	Boiler	CB Tail Gas boiler stack	50	PM(mg/NM3),SO2 (PPM),NOx(PPM)	50,50,150	LEA	N.A	Before commissioning.
19	Gas Exits	CB-VBC Stack 2	40	PM(mg/NM3),SO2 (PPM),NOx(PPM)	100,0,0	PM	FIL,PRT	Before commissioning.
20	Gas Exits	CB-VBC Stack 1	40	PM(mg/NM3),SO2 (PPM),NOx(PPM)	0,0,100	PM	FIL,PRT	Before commissioning.
21	Driers	CB-Dryer Stack	70	PM(mg/NM3),SO2 (PPM),NOx(PPM)	0,0,100	PM	FIL,GRB,PR T	Before commissioning.

Note:

N.A : Not Applicable





**Consent For Operation
(CFO-Air,Water)**

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Valid upto: 30/06/2026

Karnataka State Pollution Control Board
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Tele : 080-25589112/3, 25581383
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email id: ho@kspcb.gov.in

Industry Colour: RED Industry Scale: LARGE

(This document contains 7 pages including annexure & excluding additional conditions)

N.A : Not Applicable

N.A,PRT : Not Applicable

AEC,MU : Accoustic Enclosures
L,SCR

N.A,PRT : Not Applicable

N.A,PRT : Not Applicable

SCR : Scrubber

PRT,SCR : Port Hole

PRT,SCR : Port Hole

N.A : Not Applicable

N.A,PRT : Not Applicable

AEC : Accoustic Enclosures

DUS : Dust Collector

N.A : Not Applicable

FIL,PRT : Bag Filter

FIL,GRB, : Bag Filter

PRT

Note:

1. The Noise levels within the premises shall not exceed 75 dB (A) leq during day time and 70 dB(A) leq during night time respectively.
2. The DG set shall be provided with acoustic measures as per SI.No.94 in Schedule-I of Environment (Protection)Rules.
3. There shall be no smell or odour nuisance from the industry.

LOCATION OF SAMPLING PORTHOLES, PLATFORMS, ELECTRICAL OUTLET.

1. Location of Portholes and approach platform:

Portholes shall be provided for all chimneys, stacks and other sources of emission. These shall serve as the sampling points. The sampling point should be located at a distance equal to atleast eight times the stack or duct diameters downstream and two diameters upstream from source of low disturbance such as a Bend, Expansion, Construction Valve, Fitting or Visible Flame for rectangular stacks, the equivalent diameter can be calculated from the following equation.

$$\text{Equivalent Diameter} = \frac{2 (\text{Length} \times \text{Width})}{(\text{Length} + \text{Width})}$$

2. The diameter of the sampling port should not be less than 100 mm dia". Arrangements should be made so that the porthole is closed firmly during the non sampling period
3. An easily accessible platform to accommodate 3 to 4 persons to conveniently monitor the stack emission from the portholes shall be provided. Arrangements for an Electric Outlet Point of 230 V 15 A with suitable switch control and 3 Pin Point shall be provided at the Porthole location.
4. The ladder shall be provided with adequate safety features so as to approach the monitoring location with ease.

For and on behalf of the
Karnataka State Pollution Control Board

Signature Not Verified

Digitally signed by
Date: 2021.11.16 15:22:30
+05:30





Form 2 -[Rule 6(2)] Authorization
under Hazardous & Other Wastes
[Management & Transboundary
Movement]Rules,2016

Authorization No: 332259

Valid upto: 30/06/2026

Karnataka State Pollution Control Board
Parisara Bhavana,No.49, Church
Street,Bengaluru-560001
Tele : 080-25589112/3, 25581383
Fax:080-25586321
email id: ho@kspcb.gov.in

(This document contains 4 pages excluding annexure)

Authorization No: 332259 PCB ID: 27448 Date: 14/07/2022

**FORM FOR GRANT OR RENEWAL OF AUTHORISATION BY STATE POLLUTION
CONTROL BOARD TO THE OCCUPIERS, RECYCLERS, REPROCESSORS, REUSERS, USER
AND OPERATORS OF DISPOSAL FACILITIES**

Ref: 1. Authorization application submitted by the industry/organization on 20/04/2022 at
Regional Office.

2. Inspection of the project site/organization by Regional Officer , Bellary on 19/04/2022

3. Proceedings of CCM dated: , held on:

1. Number of authorization 332259 and date of issue 14/07/2022

2. Reference of application No. 144329 Inward Date 20/04/2022

3. Director & CEO of Ms. Epsilon Carbon Private Limited (ECPL) is hereby granted an authorization based on the enclosed signed inspection report for Generation,Collection,Reception,Disposal or any other use of hazardous or other wastes or both on the premises situated at the location **Address:** Sy. No. 19, 20, 21, 22/1, 22/2, 23, 24, 26, 27, 28/1, 28/2, , 32/1, 32/2, 32/3, 33, 34/2, 34/3, 41, 44/1, 44/2 & 45, Musin **Industrial Area** : Musinayakahalli , **Taluk** : Sanduru , **District** : Bellary

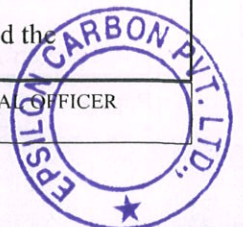
Details of Authorization:

Category of Hazardous waste as per the Schedule I,II,III & IV of these rules	Description of Hazardous Waste	Quantity/Annum	Unit	Authorized Mode of Disposal or recycling or utilization or co-processing, etc.,
I	5.2~Wastes Residues Containing Oil	1.200	M.T	As Per Annexure
I	35.3~Chemical Sludge From Waste Water Treatment	10.180	M.T	As Per Annexure
I	2.2~Sludge Containing Oil	1.200	M.T	As Per Annexure
I	5.1~Used Spent Oil	0.120	M.T	As Per Annexure

1. The authorization shall be valid for a period upto 30/06/2026

A. General Conditions of authorization:

1. The authorized person shall comply with the provisions of the Environment (Protection) Act, 1986 and the Rules made there under.





Form 2 -[Rule 6(2)] Authorization
under Hazardous & Other Wastes
[Management & Transboundary
Movement]Rules,2016

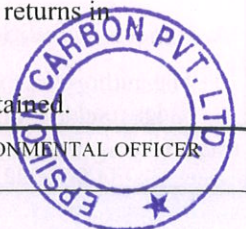
Authorization No: 332259

Valid upto: 30/06/2026

Karnataka State Pollution Control Board
Parisara Bhavana, No.49, Church
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email id: ho@kspcb.gov.in

(This document contains 4 pages excluding annexure)

2. The authorization or its renewal shall be produced for inspection at the request of an Officer authorized by the Karnataka State Pollution Control Board.
3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous wastes and other wastes except what is permitted through this authorization and without obtaining prior permission of the KSPCB.
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of this authorization.
5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty".
7. It is the duty of the authorized person to take prior permission of the Karnataka State Pollution Control Board to close down the facility.
8. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
9. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
10. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
11. An application for the renewal of an authorization shall be made '3' months before the date of expiry.
12. The Person authorized shall bring to the notice of the Board, if any increase in quantity, change in category and handling operation. In such cases, the authorized Person has to obtain fresh authorization.
13. Karnataka State Pollution Control Board reserves the right to review, impose additional condition or conditions, revoke, change or alter the terms and conditions of this authorization or to suspend or cancel this authorization.
14. The Person authorized shall take steps for reduction and prevention of the waste generated or for recycling or reuse.
15. The authorized person shall maintain the records at site in Form-3 and shall submit the annual returns in Form-4 within 30th June every year for the Period April to March and manifest in Form-10.
16. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.





Form 2 -[Rule 6(2)] Authorization
under Hazardous & Other Wastes
[Management & Transboundary
Movement]Rules,2016

Authorization No: 332259

Valid upto: 30/06/2026

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(This document contains 4 pages excluding annexure)

17. The hazardous and other waste which gets generated during recycling or reuse or recovery or per-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
18. The transportation of hazardous waste shall have to be carried out only through registered/authorized vehicles meant for transportation of hazardous waste.
19. The Person Authorized shall not store the Hazardous Waste more than ninety days as per Rule 8 (1).
20. The Person Authorized shall transport and store the raw materials in a manner so as not to cause any damage to environment, life and property. The applicant shall be solely responsible for any damages to environment.
21. Display Boards: The person authorized shall display sign boards at the storage site as "Hazardous Waste Storage Site" and "Danger" and the site shall be provided with accident preventive measures.

Additional Conditions:

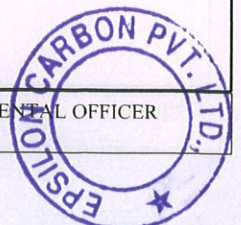
The Occupier of the facility shall comply all terms and conditions stipulated in the Enclosed Annexure.

For and on behalf of the
Karnataka State Pollution Control Board

CHIEF/ SENIOR ENVIRONMENTAL OFFICER

COPY TO:

1. The Environmental Officer, KSPCB, Regional Office, for information and to inspect the industry during your next visit to the area.
2. Master copy (Dispatch).
3. Office copy.





Sustainability

KARNATAKA WASTE MANAGEMENT PROJECT

(A Division of Re Sustainability Ltd.)

COMMON HAZARDOUS WASTE

TREATMENT STORAGE DISPOSAL FACILITY (CHWTSDF)

Towards Doddaballapur Road, NH - 207, KIADB Industrial Area

Dabaspet, Nelamangala Tq., Bengaluru Rural Dist - 562 111

Cell : +91 96864 30167

Managing Hazardous Waste

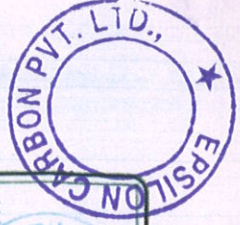
MEMBERSHIP CERTIFICATE

This is to Certify that M/s Epsilon Carbon Pvt. Ltd.
Sultempur Road, Musina, Karnafuli, Taluk, Sandur, Vijayanagar, Bellary - 583123
is a member of KARNATAKA WASTE MANAGEMENT PROJECT with membership No. 742

Date : 15/11/2021

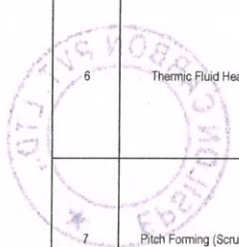
This Certificate is valid upto 31st March 2023


AUTHORISED SIGNATORY



CONSOLIDATED ANNUAL STACK MONITORING REPORTS - 2022

Plant	S.No	Sample Location & Stack Connected to	Test Parameter	Method	Unit	CPCB Limit	Month:											
							JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT			
CT Plant	1	De Dusting Stack no. 1	Date of Sampling:				25/01/22	18/02/22	26/03/22	26/04/22	11/5/2022	18/06/22	15/07/22	18/08/22	22/09/22			
			Temperature	IS 11255 (Part 1)	deg C							45	44	46	45			
			Velocity	IS 11255 (Part 1)	m/sec							5.54	5.06	5.08	5.07			
			Flowrate	IS 11255 (Part 1)	Nm ³ /hr							12154.03	11125.74	11100.42	11112.82			
			Particulate Matter	USEPA - 5	mg/m ³	150	6	5.3	5.3	6.1	4.7							
			SOx	IS 11255 (Part 2)	mg/m ³	600												
			Nox	IS 11255 (Part 7)	mg/m ³	600												
			Volatile Organic Compounds	USEPA - 18	mg/m ³													
	2	Coal Tar Tube Furnace	Date of Sampling:				25/01/22	17/02/22	25/03/22	26/04/22	10/5/2022	17/06/22	14/07/22	17/08/22	21/09/22			
			Temperature	IS 11255 (Part 1)	deg C							196	218	213	218			
			Velocity	IS 11255 (Part 1)	m/sec							3.89	4.37	3.94	4.36			
			Flowrate	IS 11255 (Part 1)	Nm ³ /hr							14935.5	17617.21	15362.76	16855.7			
			Particulate Matter	USEPA - 5	mg/m ³	150	5.1	4.5		6.2	7.1							
			SOx	IS 11255 (Part 2)	mg/m ³	600				12.6	13.2							
			Nox	IS 11255 (Part 7)	mg/m ³	600				21.1	19.5							
			Volatile Organic Compounds	USEPA - 18	mg/m ³				32.1	4.6	17.6	23.1						
	3	Naphthalene Tube Furnace	Date of Sampling:				25/01/22	17/02/22	25/03/22	26/04/22	10/5/2022	17/06/22	14/07/22	17/08/22	21/09/22			
			Temperature	IS 11255 (Part 1)	deg C							159	152	162	158			
			Velocity	IS 11255 (Part 1)	m/sec							3.73	3.73	11.49	11.17			
			Flowrate	IS 11255 (Part 1)	Nm ³ /hr							8796.21	8836.2	27210.33	26377.24			
			Particulate Matter	USEPA - 5	mg/m ³	150	5.4	4.8	3.9	5	4.8		14.5	15.9	14.7			
			SOx	IS 11255 (Part 2)	mg/m ³	600				8.1	7.4							
			Nox	IS 11255 (Part 7)	mg/m ³	600				10.1	12.7							
			Volatile Organic Compounds	USEPA - 18	mg/m ³					10.2	13.8							
4	Modified Pitch Tube Furnace	Date of Sampling:				25/01/22	17/02/22	25/03/22	26/04/22	10/5/2022	17/06/22	14/07/22	17/08/22	21/09/22				
		Temperature	IS 11255 (Part 1)	deg C							186	187	176	188				
		Velocity	IS 11255 (Part 1)	m/sec							4.21	3.86	4.72	4.7				
		Flowrate	IS 11255 (Part 1)	Nm ³ /hr							6256.57	5427.17	7058.11	6983.88				
		Particulate Matter	USEPA - 5	mg/m ³	150	4.8	5	4.2	5.8	6.4		13.1	16.5	15.2				
		SOx	IS 11255 (Part 2)	mg/m ³	600				8.7	10								
		Nox	IS 11255 (Part 7)	mg/m ³	600				12.7	14.3								
		Volatile Organic Compounds	USEPA - 18	mg/m ³					12.3	16.4								
5	Modified Pitch Scrubber	Date of Sampling:				25/01/22	17/02/22		26/04/22	10/5/2022	17/06/22	14/07/22	18/08/22	21/09/22				
		Temperature	IS 11255 (Part 1)	deg C														
		Velocity	IS 11255 (Part 1)	m/sec														
		Flowrate	IS 11255 (Part 1)	Nm ³ /hr														
		Particulate Matter	USEPA - 5	mg/m ³	150	5.2						71						
		SOx	IS 11255 (Part 2)	mg/m ³	600													
		Nox	IS 11255 (Part 7)	mg/m ³	600													
		Volatile Organic Compounds	USEPA - 18	mg/m ³				27.6	31.3	33.5			64.5	62.5	69.5			
6	Thermic Fluid Heater	Date of Sampling:				25/01/22	18/02/22	26/03/22	26/04/22	11/5/2022	18/06/22	15/07/22	18/08/22					
		Temperature	IS 11255 (Part 1)	deg C								158	153	141				
		Velocity	IS 11255 (Part 1)	m/sec								3.85	3.53	3.76				
		Flowrate	IS 11255 (Part 1)	Nm ³ /hr								8521.41	8433.41	8782.73				
		Particulate Matter	USEPA - 5	mg/m ³	150	4.5	3.9	5.2	5.5	3.9		9.6	13.8	12.6				
		SOx	IS 11255 (Part 2)	mg/m ³	600													
		Nox	IS 11255 (Part 7)	mg/m ³	600													
		Volatile Organic Compounds	USEPA - 18	mg/m ³														
7	Pitch Forming (Scrubber)	Date of Sampling:				25/01/22	18/02/22		26/04/22	11/5/2022	17/06/22	15/07/22	18/08/22	22/09/22				
		Temperature	IS 11255 (Part 1)	deg C														
		Velocity	IS 11255 (Part 1)	m/sec														
		Flowrate	IS 11255 (Part 1)	Nm ³ /hr														
		Particulate Matter	USEPA - 5	mg/m ³	150	4.4						64.2						
		SOx	IS 11255 (Part 2)	mg/m ³	600													
		Nox	IS 11255 (Part 7)	mg/m ³	600													
		Volatile Organic Compounds	USEPA - 18	mg/m ³				25.3	26.2	29.1			51.6	52.6	58			
8	Coal Tar Scrubber	Date of Sampling:				24/01/22			26/04/22	10/5/2022	17/06/22	14/07/22	18/08/22	21/09/22				
		Temperature	IS 11255 (Part 1)	deg C														
		Velocity	IS 11255 (Part 1)	m/sec														
		Flowrate	IS 11255 (Part 1)	Nm ³ /hr														
		Particulate Matter	USEPA - 5	mg/m ³	150	3.9												
		SOx	IS 11255 (Part 2)	mg/m ³	600													
		Nox	IS 11255 (Part 7)	mg/m ³	600													
		Volatile Organic Compounds	USEPA - 18	mg/m ³					27.6	31.4	47.5	38.6	35.9	42.2				
9	DG Set (1250 KVA)	Date of Sampling:				25/01/22	17/02/22	26/03/22	26/04/22	11/5/2022	18/06/22	15/07/22	18/08/22	21/09/22				
		Temperature	IS 11255 (Part 1)	deg C								92	102	96	74			
		Velocity	IS 11255 (Part 1)	m/sec								4.84	4.92	11.94	6.8			
		Flowrate	IS 11255 (Part 1)	Nm ³ /hr								1006.2	1478.92	3523.76	840.13			
		Particulate Matter	USEPA - 5	mg/m ³	150	6.6	6.3	6.3	8.3	7.3		41.8	35.5	10.4	13.1			
		Carbon Monoxide	USEPA - 10	mg/m ³	600	347	374	388	346	400		358	336	314	336			
		Sulphur Dioxide	USEPA - 6C	mg/m ³	600	11.1	8.8	9.1	10.5	8.3		19.2	29.6	28.4	38.5			
		Oxides of Nitrogen	USEPA - 7E	mg/m ³		423	412	436	386	438		24.5	21.8	19.6	17.6			



Plant	S.No	Sample Location & Stack Connected to	Test Parameter	Method	Unit	CPCB Limit	Month:								
							JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT
CB Plant	1	Tail Gas Boiler	Date of Sampling:				27/01/22	16/02/22	27/03/22	27/04/22	12/5/2022	15/06/22	16/07/22	19/08/22	19/09/22
			Temperature	IS 11255 (Part 1)	deg C							143	145	140	174
			Moisture	IS 11255 (Part 1)	%							8.84	10.32	12.54	
			Velocity	IS 11255 (Part 1)	m/sec							3.83	4.03	3.66	4.17
			Flowrate	IS 11255 (Part 1)	Nm ³ /hr							56465.85	59128.62	54351.49	57209.6
			Particulate Matter	IS 11255 (Part 1)	mg/m ³	150	7.3	6.9	7.7	6.8	6.1	15.0	18.7	15.6	14.7
			SO _x	IS 11255 (Part 2)	mg/m ³	600	5.1	4.5	5.7	4.7	4.7	83.4	59.1	61.2	76.9
	NO _x	IS 11255 (Part 7)	mg/m ³	600	34.2	34.2	32.5	35.4	32.3	71.0	40.5	41.8	39.1		
	2	VBC-01 Bag Filter Tread	Date of Sampling:				24/01/22	16/02/22	27/03/22	27/04/22	12/5/2022	15/06/22	16/07/22	19/08/22	19/09/22
			Temperature	IS 11255 (Part 1)	deg C							172	202	197	184
			Moisture	IS 11255 (Part 1)	%							42.25	41.81	40.65	
			Velocity	IS 11255 (Part 1)	m/sec							11.39	11.76	12.02	11.54
			Flowrate	IS 11255 (Part 1)	Nm ³ /hr							12123.24	11859.16	12058.4	11905.93
			Particulate Matter	IS 11255 (Part 1)	mg/m ³	150	6.5	6.2	6.8	8	6.7	18.8	20.4	11.5	12.9
			SO _x	IS 11255 (Part 2)	mg/m ³	600	7.9	8.5	8.5	10.3	9.1	102.4	93.5	51.6	57.7
	NO _x	IS 11255 (Part 7)	mg/m ³	600	26.0	24.3	21.8	30.6	31.7	43.5	31.2	32.7	27.4		
	3	Dryer	Date of Sampling:				24/01/22	16/02/22	27/03/22	27/04/22	12/5/2022	15/06/22	16/07/22	19/08/22	20/09/22
			Temperature	IS 11255 (Part 1)	deg C							188	171	142	140
			Moisture	IS 11255 (Part 1)	%							10.44	11.38	12.14	
			Velocity	IS 11255 (Part 1)	m/sec							3.86	3.79	3.67	4.23
			Flowrate	IS 11255 (Part 1)	Nm ³ /hr							87341.52	95484.67	92238.51	95287.63
			Particulate Matter	IS 11255 (Part 1)	mg/m ³	150	9.3	8.8	15.4	10.8	13.6	23.4	21.8	15.6	16.2
			SO _x	IS 11255 (Part 2)	mg/m ³	600	8.8	9.3	11	7.6	9.2	51.3	59.1	61.5	70.5
	NO _x	IS 11255 (Part 7)	mg/m ³	600	36.6	32.3	38.8	36.7	33.5	42.0	39.5	29.8	23.5		
	4	VBC-02 bag Filter Carcass	Date of Sampling:					15/02/22	27/03/22	27/04/22	12/5/2022	15/06/22	16/07/22	19/08/22	20/09/22
			Temperature	IS 11255 (Part 1)	deg C							190	198	201	198
			Moisture	IS 11255 (Part 1)	%							40.72	38.46	36.87	
			Velocity	IS 11255 (Part 1)	m/sec							11.81	11.71	11.42	11
			Flowrate	IS 11255 (Part 1)	Nm ³ /hr							12082.22	11776.75	11360.46	11011.7
			Particulate Matter	IS 11255 (Part 1)	mg/m ³	150		7.4	7.3	6	7.7	15.8	17.6	13.8	10.4
			SO _x	IS 11255 (Part 2)	mg/m ³	600		9.7	9.3	9.2	9.7	114.7	103.4	61.3	64.1
	NO _x	IS 11255 (Part 7)	mg/m ³	600		28.2	27.6	31	28.1	98	64.4	42.2	35.2		
	5	DG Set-1 (1250 KVA)	Date of Sampling:					17/02/22							
			Particulate Matter	USEPA - 5	mg/m ³	150		8.3							
			Carbon Monoxide	USEPA - 10	mg/m ³			408							
			Sulphur Dioxide	USEPA - 6C	mg/m ³	600		11.2							
	Oxides of Nitrogen	USEPA - 7E	mg/m ³	600		385									
	5	DG Set-2 (1250 KVA)	Date of Sampling:					17/02/22							
			Particulate Matter	USEPA - 5	mg/m ³	150		7.6							
			Carbon Monoxide	USEPA - 10	mg/m ³			379							
Sulphur Dioxide			USEPA - 6C	mg/m ³	600		10.4								
Oxides of Nitrogen	USEPA - 7E	mg/m ³	600		438										



ECPL - Water Consumption Flow (in m3)

S.No	As per KSPCB category (statutory requirement)	As per CFO WC (KLD)	22-Jan	22-Feb	22-Mar	22-Apr	22-May	22-Jun	22-Jul	22-Aug	22-Sep
1	Fresh Water supply from JSW to ECPL unit	3438	43204	48480	53507	54945	59599	48814	46775	54128	54383
2	Manufacturing Process	1324	11209	16819	17940	29899	33977	29686	29109	30843	29069
3	Domestic Purpose	60	3194	3136	3314	854	790	717	487	747	739
4	Boiler Feed Purpose	816	12353	10172	12550	13316	17405	11248	10777	15035	14896
5	Cooling Water Purpose	1152	10192	5510	6002	9176	5971	5727	5593	6086	8113
6	Others Purpose	86	6256	12843	13701	1700	1457	1436	810	1418	1566



S.No	Type of Trees	Number of Trees
1	Lagestroemia	14
2	Glomerata	237
3	Pongamia	406
4	Tamarindus	641
5	Pipal	1397
6	Bahunia	440
7	Azadirachta	796
8	Gul Mohar	215
9	Cassia	60
10	Plumeria	44
11	Spathodia	138
12	Tabebuia	200
13	Peltophorum	787
14	Syzgium	687
15	Terminalia	83
16	Terminalia Menally	11
17	Cassia Fistula	5
18	Ficus Religiosa	468
19	Ficus Elastic	0
20	Thespesia Populnea	286
21	Conocarpus	733
22	Teek	70
23	Jacaranda	21
TOTAL		7739

S.No	Type of Shrubs	Number of Shrubs
1	Duranta	880
2	Acalypha Thimma Red	5860
3	Acalypha Green	1402
4	Tecoma Stans	2688
5	Acalypha wilkinsiana	1100
6	Thevetia	1530
7	Nerium Oleander	2100
8	Dracaena Mahatma	110
9	Hibiscus	100
10	Caesalpinia	3230
11	Bougainvillea	600
12	Spider Lilly	700
13	Hemelia Petens	150
14	Croton	200
15	Creeper thumbergia	300
16	Tecoma Capensis	890
17	Fish Tail Palm	10
18	Allamanda Schottii	750
19	Ixora	710
20	Pandanas	2000
21	Fountain Grass	650
TOTAL		25960

ECPL GREEN BELT AREA DETAILS		
Sl.no	Details	Area in acres
1	Total land	166
2	Total green belt area as per statutory(33% of total land)	56
3	Total plantation area(Completed)	30
4	Total plantation area(Inprogress)	26
Sl.no	Details	Area in acres
1	Total planted area in percentage	18%
2	Rate of Survival	60%



ECPL CSR & CER DETAILS				
S.No	Financial Year	CSR Activity (in Lakhs)	CER Activity (in Lakhs)	Total Expenditure (in Lakhs)
1	2020-21	96,90,286	1,15,72,749	2,12,63,035
2	2021-22	1,86,09,867	1,06,32,420	2,92,42,287
Total		2,83,00,153	2,22,05,169	5,05,05,322



Epsilon Carbon Private Limited, Vijaynagar

Glimpse of CSR Activity for FY 2022-23.



ECPL launched Mobile Health Unit in DIZ.



Distributed artificial limb to physically challenged



Promotion of sport – Inspire institute of sport



ECPL support to old age home



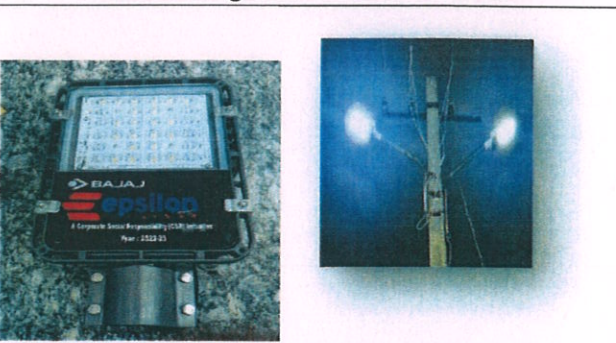
Distributed LED streetlights to Kudathini village



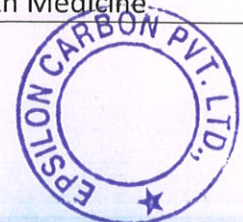
Model Anganwadi Centre in DIZ



Model Govt. School at DIZ



ECPL - Tele Health Medicine



MONTHLY ONLINE ALERTS INDUSTRY WISE REPORT

Category / State	Industry Name	Industry Location	Stations
Petro Chemical / Karnataka	Epsilon Carbon Private Limited (ECPL)	Musinayakahalli, Taluka Sandur, District Ballary, Karnataka, Taluka Sandur, Karnataka, Karnataka-583123	N/A

Legend	Good 30	Moderate 0	Severe 0
No. Of Days			

Assumed Alert Order: DELAY/CONSECUTIVE/YELLOW_COUNT/COUNT/DEVIATION

September 2022

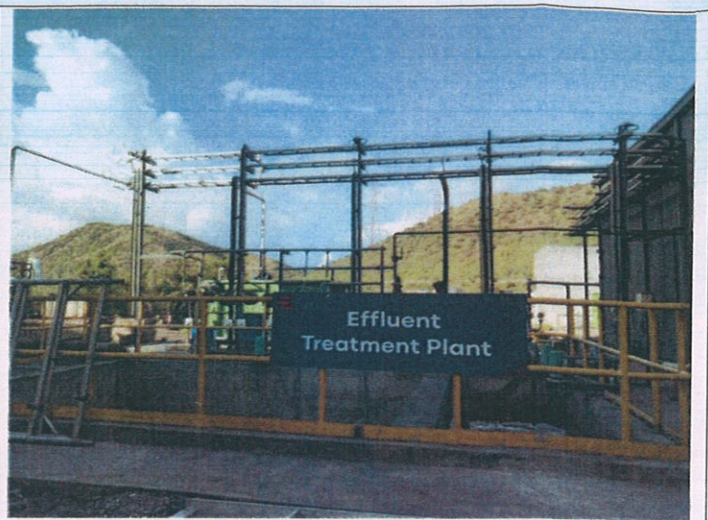
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				Good(0) 1	Good(0) 2	Good(0) 3
Good(0) 4	Good(0) 5	Good(0) 6	Good(0) 7	Good(0) 8	Good(0) 9	Good(0) 10
Good(0) 11	Good(0) 12	Good(0) 13	Good(0) 14	Good(0) 15	Good(0) 16	Good(0) 17
Good(0) 18	Good(0) 19	Good(0) 20	Good(0) 21	Good(0) 22	Good(0) 23	Good(0) 24
Good(0) 25	Good(0) 26	Good(0) 27	Good(0) 28	Good(0) 29	Good(0) 30	



ECPL EC SIX MONTH COMPLIANCE JANUARY-SEPTEMBER 2022



RAINWATER HARVESTING SYSTEM



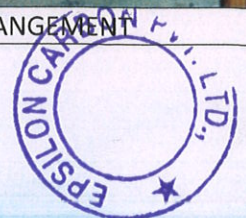
EFFLUENT TREATMENT PLANT



WTP&ZLD FACILITY



TANKFARM SCRUBBER ARRANGEMENT



		Month:													
		Date of Sampling:													
Location	Sr. No.	Test Parameter	Method	Duration	Unit	CPCB Limit	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT
							19/01/22	21/02/22	30/03/22	29/04/22	14/05/22	20/06/22	20/07/22	22/08/22	17/09/22
							Result	Result	Result	Result	Result	Result	Result	Result	Result
Vaddu (Day1)	1	Particulate Matter (PM ₁₀)	IS-5182 (Part-23)	24 Hrs	µg/m ³	100	63.3	62.7	62.2	65.0	66.1	66.8	62.8	68.8	65.8
	2	Particulate Matter (PM _{2.5})	NIL/AIR/SOP/03†	24 Hrs	µg/m ³	60	26.0	5.8	25.6	25.5	31.7	30.8	31.2	30.4	27.8
	3	Sulphur Dioxide (SO ₂)	IS-5182 (Part-02)	24 Hrs	µg/m ³	80	11.4	9.0	8.8	9.9	11.5	10.7	11.4	9.0	9.3
	4	Oxides of Nitrogen (NO _x)	IS-5182 (Part-06)	24 Hrs	µg/m ³	80	38.0	28.1	21.8	34.7	28.6	30.7	25.1	21.9	25
	5	Carbon Monoxide (CO)	IS-5182 (Part-10)	24 Hrs	µg/m ³	2	0.54	0.5	0.49	0.38	0.40	0.42	0.54	0.50	0.37
	6	Benzene (C ₆ H ₆)	IS-5182 (Part-11)	24 Hrs	µg/m ³	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7	Ammonia (NH ₃)	ISC Part-II (Method-401)	24 Hrs	µg/m ³	400	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8	Ozone (O ₃)	IS-5182 (Part-09)	24 Hrs	µg/m ³	100	4.69	4.0	5.75	4.21	5.31	4.18	5.50	4.87	4.28
	9	Benzo - a - Pyrene (BaP)	IS-5182 (Part-12)	24 Hrs	µg/m ³	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10	Lead (Pb)	APHA - Air 3 rd Edition (Method 822)	24 Hrs	µg/m ³	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11	Arsenic (As)		24 Hrs	µg/m ³	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12	Nickel (Ni)		24 Hrs	µg/m ³	20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	13	Volatile Organic Compound (VOC)	NIOSH 1501	24 Hrs	µg/m ³	—	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

		Month:													
		Date of Sampling:													
Location	Sr. No.	Test Parameter	Method	Duration	Unit	CPCB Limit	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT
							20/01/22	22/02/22	31/03/22	30/04/22	15/05/22	21/06/22	21/07/22	18/09/22	
							Result	Result	Result	Result	Result	Result	Result	Result	
Vaddu (Day2)	1	Particulate Matter (PM ₁₀)	IS-5182 (Part-23)	24 Hrs	µg/m ³	100	65.3	71.0	60.6	63.4	69.0	68.1	64.5	63.8	63.8
	2	Particulate Matter (PM _{2.5})	NIL/AIR/SOP/03†	24 Hrs	µg/m ³	60	29.9	31.3	24.3	29.1	28.2	27.8	26.5	25.2	31.3
	3	Sulphur Dioxide (SO ₂)	IS-5182 (Part-02)	24 Hrs	µg/m ³	80	10.8	10.8	11.5	9.4	10.9	9.4	12.3	11.1	11.1
	4	Oxides of Nitrogen (NO _x)	IS-5182 (Part-06)	24 Hrs	µg/m ³	80	30.6	26.8	25.1	21.3	23.8	20.1	25.2	32.6	32.6
	5	Carbon Monoxide (CO)	IS-5182 (Part-10)	24 Hrs	µg/m ³	2	0.49	0.4	0.5	0.37	0.53	0.35	0.46	0.35	0.35
	6	Benzene (C ₆ H ₆)	IS-5182 (Part-11)	24 Hrs	µg/m ³	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7	Ammonia (NH ₃)	ISC Part-II (Method-401)	24 Hrs	µg/m ³	400	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8	Ozone (O ₃)	IS-5182 (Part-09)	24 Hrs	µg/m ³	100	5.40	4.6	5.3	5.17	5.65	4.92	4.50	5.4	5.4
	9	Benzo - a - Pyrene (BaP)	IS-5182 (Part-12)	24 Hrs	µg/m ³	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10	Lead (Pb)	APHA - Air 3 rd Edition (Method 822)	24 Hrs	µg/m ³	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11	Arsenic (As)		24 Hrs	µg/m ³	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12	Nickel (Ni)		24 Hrs	µg/m ³	20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	13	Volatile Organic Compound (VOC)	NIOSH 1501	24 Hrs	µg/m ³	—	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

		Month:													
		Date of Sampling:													
Location	Sr. No.	Test Parameter	Method	Duration	Unit	CPCB Limit	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT
							19/01/22	19/02/22	30/03/22	29/04/22	14/05/22	20/06/22	20/07/22	22/08/22	17/09/22
							Result	Result	Result	Result	Result	Result	Result	Result	Result
Basapur (Day1)	1	Particulate Matter (PM ₁₀)	IS-5182 (Part-23)	24 Hrs	µg/m ³	100	62.3	1.7	60.2	63.8	64.5	54.0	55.9	63.2	62.5
	2	Particulate Matter (PM _{2.5})	NIL/AIR/SOP/03†	24 Hrs	µg/m ³	60	31.3	29.5	26.9	28.2	28.2	26.0	26.5	25.2	29.5
	3	Sulphur Dioxide (SO ₂)	IS-5182 (Part-02)	24 Hrs	µg/m ³	80	9.2	9.3	11.2	10.5	9.4	11.3	10.0	10.8	10.2
	4	Oxides of Nitrogen (NO _x)	IS-5182 (Part-06)	24 Hrs	µg/m ³	80	27.0	27.2	35.5	28.4	28.0	29.5	27.5	25.0	33.5
	5	Carbon Monoxide (CO)	IS-5182 (Part-10)	24 Hrs	µg/m ³	2	0.47	0.4	0.3	0.32	0.32	0.36	0.43	0.37	0.41
	6	Benzene (C ₆ H ₆)	IS-5182 (Part-11)	24 Hrs	µg/m ³	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7	Ammonia (NH ₃)	ISC Part-II (Method-401)	24 Hrs	µg/m ³	400	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8	Ozone (O ₃)	IS-5182 (Part-09)	24 Hrs	µg/m ³	100	4.09	5.0	4.9	5.62	4.35	4.51	4.20	4.32	4.22
	9	Benzo - a - Pyrene (BaP)	IS-5182 (Part-12)	24 Hrs	µg/m ³	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10	Lead (Pb)	APHA - Air 3 rd Edition (Method 822)	24 Hrs	µg/m ³	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11	Arsenic (As)		24 Hrs	µg/m ³	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12	Nickel (Ni)		24 Hrs	µg/m ³	20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	13	Volatile Organic Compound (VOC)	NIOSH 1501	24 Hrs	µg/m ³	—	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

		Month:													
		Date of Sampling:													
Location	Sr. No.	Test Parameter	Method	Duration	Unit	CPCB Limit	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT
							20/01/22	22/02/22	31/03/22	30/04/22	15/05/22	21/06/22	21/07/22	18/09/22	
							Result	Result	Result	Result	Result	Result	Result	Result	
Basapur (Day2)	1	Particulate Matter (PM ₁₀)	IS-5182 (Part-23)	24 Hrs	µg/m ³	100	59.7		7.6	59.2	55.1	54.9	58.6	57.3	57.3
	2	Particulate Matter (PM _{2.5})	NIL/AIR/SOP/03†	24 Hrs	µg/m ³	60	25.2		23.4	32.6	23.9	22.1	32.2	28.6	28.6
	3	Sulphur Dioxide (SO ₂)	IS-5182 (Part-02)	24 Hrs	µg/m ³	80	11.0		8.8	11.4	10.6	10.4	11.0	9.8	9.8
	4	Oxides of Nitrogen (NO _x)	IS-5182 (Part-06)	24 Hrs	µg/m ³	80	37.8		20.3	29.3	32.2	27.6	25.4	33.6	33.6
	5	Carbon Monoxide (CO)	IS-5182 (Part-10)	24 Hrs	µg/m ³	2	0.37		0.4	0.54	0.44	0.42	0.39	0.45	0.45
	6	Benzene (C ₆ H ₆)	IS-5182 (Part-11)	24 Hrs	µg/m ³	5	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7	Ammonia (NH ₃)	ISC Part-II (Method-401)	24 Hrs	µg/m ³	400	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8	Ozone (O ₃)	IS-5182 (Part-09)	24 Hrs	µg/m ³	100	5.28		4.2	5.71	4.56	4.87	4.60	3.91	3.91
	9	Benzo - a - Pyrene (BaP)	IS-5182 (Part-12)	24 Hrs	µg/m ³	1	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10	Lead (Pb)	APHA - Air 3 rd Edition (Method 822)	24 Hrs	µg/m ³	1	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11	Arsenic (As)		24 Hrs	µg/m ³	6	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12	Nickel (Ni)		24 Hrs	µg/m ³	20	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL
	13	Volatile Organic Compound (VOC)	NIOSH 1501	24 Hrs	µg/m ³	—	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL

		Month:													
		Date of Sampling:													
Location	Sr. No.	Test Parameter	Method	Duration	Unit	CPCB Limit	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT
							19/01/22	21/02/22	28/03/22	27/04/22	12/05/22	18/06/22	18/07/22	19/08/22	17/09/22
							Result	Result	Result	Result	Result	Result	Result	Result	Result
Sultanpur (Day1)	1	Particulate Matter (PM ₁₀)	IS-5182 (Part-23)	24 Hrs	µg/m ³	100	62.7	69.1	63.3	60.2	66.7	70.1	58.5	64.8	59.6
	2	Particulate Matter (PM _{2.5})	NIL/AIR/SOP/03†	24 Hrs	µg/m ³	60	29.9	29.5	26.5	33.1	29.9	33.0	28.2	31.7	28.6
	3	Sulphur Dioxide (SO ₂)	IS-5182 (Part-02)	24 Hrs	µg/m ³	80	8.8	9.3	11.4	8.8	10.0	9.0	9.6	10.7	9.3
	4	Oxides of Nitrogen (NO _x)	IS-5182 (Part-06)	24 Hrs	µg/m ³	80	20.6	31.2	28.7	27.8	23.7	26.9	15.5	23.1	26.9
	5	Carbon Monoxide (CO)	IS-5182 (Part-10)	24 Hrs	µg/m ³	2	0.36	0.4	0.4	0.49	0.39	0.40	0.42	0.45	0.39
	6	Benzene (C ₆ H ₆)	IS-5182 (Part-11)	24 Hrs	µg/m ³	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7	Ammonia (NH ₃)	ISC Part-II (Method-401)	24 Hrs	µg/m ³	400	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8	Ozone (O ₃)	IS-5182 (Part-09)	24 Hrs	µg/m ³	100	4.90	5.2	5.2	5.99	5.46	5.06	5.20	3.97	4.44
	9	Benzo - a - Pyrene (BaP)	IS-5182 (Part-12)	24 Hrs	µg/m ³	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10	Lead (Pb)	APHA - Air 3 rd Edition (Method 822)	24 Hrs	µg/m ³	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11	Arsenic (As)		24 Hrs	µg/m ³	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12	Nickel (Ni)		24 Hrs	µg/m ³	20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	13	Volatile Organic Compound (VOC)	NIOSH 1501	24 Hrs	µ										

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