

**BEFORE THE NATIONAL GREEN TRIBUNAL**  
**SOUTHERN ZONE, CHENNAI**  
**Original Application No.20 of 2022 (South Zone)**

IN THE MATTER OF:

S.Easwaramoorthy, Tirupur District ... Applicant

-Vs-

The TNPCB, Chennai and Others ... Respondents

**COUNTER AFFIDAVIT OF THE RESPONDENT NO.3 –**  
**M/S UNITED CARBON SOLUTIONS PVT. LTD.**

**PAPER BOOK**

(FOR INDEX, KINDLY SEE INSIDE)

ADVOCATE FOR THE RESPONDENT NO.3:

**A.MADHUMATHI**

**N.ANANDH KANNAN**

**C.VIDHUSAN**

**BEFORE THE NATIONAL GREEN TRIBUNAL**  
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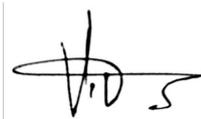
The TNPCB, Chennai and Others ... Respondents

**INDEX**

<b>S.No.</b>	<b>Description</b>	<b>Pg No</b>
1.	List of Dates and Events	3
2.	Synopsis	4-7
3.	Counter of Respondent No.3	8-19
4.	Annexure – R1	20
5.	Annexure – R2	21-70
6.	Annexure – R3	71-76
7.	Annexure – R4	77

/ True copies of their respective Originals/

Dated at Chennai on this 10<sup>th</sup> day of May, 2022



Ms.4403/18  
Vidhusan

Counsel for 3<sup>rd</sup> Respondent

## **LIST OF DATES AND EVENTS**

- 2019 - W.P.No.29295 of 2019 filed by one Mr.Vasudevan before the Hon'ble High Court of Madras which came to be disposed with a direction to the Pollution Control Board to inspect the subject industry. However, even during this inspection it appears that the 3<sup>rd</sup> Respondent herein was given a clean chit.
- Sept., 2019 - In the Indian Coconut Journal Edition of September, 2019 an article was published about the Bio-Scavenging Action, recent invasion of exotic Rugose Spiraling Whitefly is the factor affecting coconut ecosystem and is prevailing almost in all parts of Tamil Nadu & Kerala and the applicant farm is affected by it.
- 10.07.2020 - Report dt.10.07.2020 of the Department of Public Health and Preventive Medicine Chief Water Analyst's Laboratory, Coimbatore reveals that "... The excess mineral content is due to natural geographic condition and not due to pollution..."
- 20.11.2020 - This Hon'ble Tribunal in its Common Judgment in O.A.No.286 of 2013 (SZ), O.A.No.112 of 2015 (SZ) and Ors. dt.20.11.2020 held that as far as Respondent No.3 is concerned, adequate pollution control systems are prescribed in the TNPCB consent conditions are found to be in operation.

## **SYNOPSIS**

The Respondent No.3 M/s United Carbon Solutions Pvt. Ltd. premises is having 33 species of trees in 2,532 Nos. and 17 species of plants in 1,681 Nos. The irrigation is done out of the final discharge water from the plant. Henceforth, there is zero water discharge. The air quality is within the permissible limits and the Respondent No.1 does the online stack monitoring and is having result analysis data for all these years. The recent invasion of exotic Rugose Spiraling Whitefly is the factor affecting coconut ecosystem and is prevailing almost in all parts of Tamil Nadu & Kerala and the applicant farm is affected by it.

This Hon'ble Tribunal in its Common Judgment in O.A.No.286 of 2013 (SZ), O.A.No.112 of 2015 (SZ) and Ors. dt.20.11.2020 held in para 43 at page 60 that

“There is only one activated carbon manufacturing unit in the area namely M/s United Carbon Solutions Pvt. Ltd. which is operating with the consent of TNPCB. The carbon activation is done in kilns by passing steam. Committee members are of the opinion that the issues raise in the present case are not relevant to this industry as it is not manufacturing charcoal. Further, adequate pollution

control systems are prescribed in the TNPCB consent conditions are found to be in operation.”

Further, the answering respondent relies on para 15 of this O.A.No.20/2022, pertaining to W.P.No.29295 of 2019 filed by one Mr.Vasudevan before the Hon’ble High Court of Madras which came to be disposed with a direction to the Pollution Control Board to inspect the subject industry. However, even during this inspection it appears that the 3<sup>rd</sup> Respondent herein was given a clean chit.

The answering respondent appreciates the Report dt.10.07.2020 of the Department of Public Health and Preventive Medicine Chief Water Analyst’s Laboratory, Coimbatore relied upon by the Applicant where the result of the analysis reveals that “... The excess mineral content is due to natural geographic condition and not due to pollution. Hence, it is considered as UNFIT for drinking and also for other domestic purposes in its present condition.”

There is a vast difference relating to charcoal manufacturing activity and manufacture of activated carbon. The Respondent No.3 is in the manufacture of Activated Carbon, also known as Activated Charcoal, is a form of carbon commonly used to remove

contaminants and other substances from air and water among a variety of other applications. The vital benefits are:

- a) Activated Carbon is used as a key technology deployed in the global response to COVID – 19.
- b) In medical settings, Activated Carbon is also used to protect patients as a primary technology used in kidney dialysis machines.
- c) In Scandinavian countries, it is mandated by law for the new buildings to have activated carbon filtration systems. Further for preventing escape of odors from vacuum cleaners and in kitchens, it is used to deodorize refrigerators and as a key filter in non-ducted cooker hood extractors.
- d) Activated Carbon is used throughout the supply chain for drinking water. Similarly, is used in preparation of water in the production of Whiskey and in separating bitter oils from rum.
- e) The powdered and Granular activated carbon that removes unwanted natural and harmful anthropogenic compounds from edible oil.
- f) Purify the CO<sub>2</sub> for use in carbonated drinks.
- g) Purify fruit juices by removal of unwanted colour compounds or removal of mycotoxins such as Patulin in apple juice. Decolorize

cane and beet sugar syrups, dextrose, fructose and other food products.

- h) Recover high value molecules from agricultural products.
- i) Activated Carbon is used as a primary component for extraction of gold subsequent to mining activities.

In summary, activated carbon is essential in the modern living as we know, it would not be possible without it.

The answering Respondent Company leads the way globally for production of activated carbon and all work is carried under ISO 9001, 140001 and 45001 management systems which are audited frequently internally and externally.

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-Vs-

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**COUNTER OF THE RESPONDENT NO.3 –**

**M/S UNITED CARBON SOLUTIONS PVT. LTD.**

MOST RESPECTFULLY SHOWETH:

1. That all facts, averments, statements, submissions and contentions raised by the applicant as are contrary to and not in consonance with the counter, are singularly and specifically denied.
2. That before setting out the reply to the application the answering Respondent no.3 crave leave of this Hon'ble Tribunal to set out the following facts of the present case:

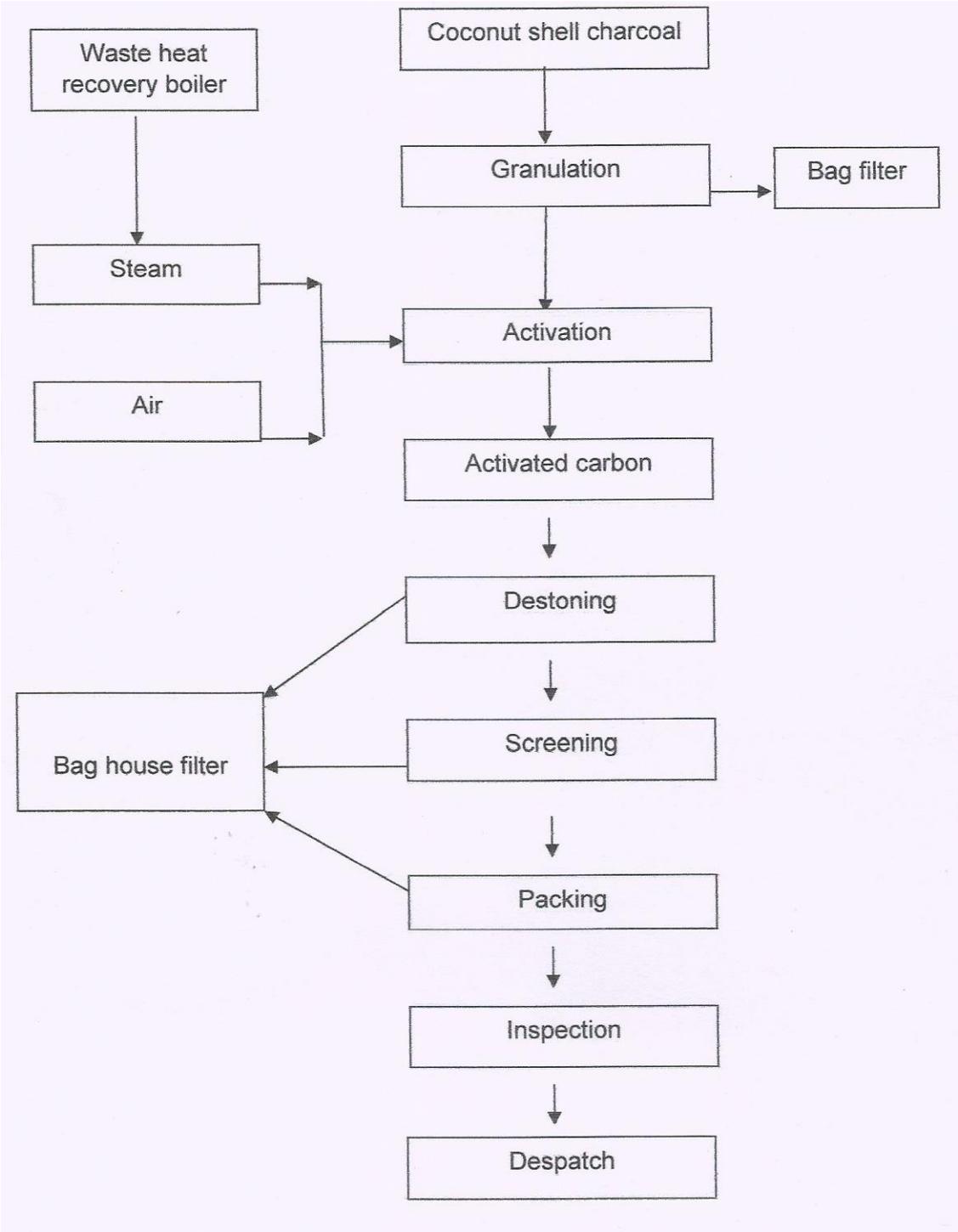
Based in Kangeyam, Tamil Nadu, India the Respondent No.3 Company incorporated in October, 2010 and having begun trading Coconut Shell Activated Carbons from 2011 onwards, has

grown substantially over 10 years to a turnover in excess of \$50M annually. The company can count itself amongst the top 5 high-quality manufactures of activated carbon in the world. Adoption to new advanced technology in the world and commitment to sustainable business practices means that the company is demonstrably on track to be the leading activated carbon producer in the world.

This Hon'ble Tribunal in its Common Judgment in O.A.No.286 of 2013 (SZ), O.A.No.112 of 2015 (SZ) and Ors. dt.20.11.2020 held in para 43 at page 60 that

“There is only one activated carbon manufacturing unit in the area namely M/s United Carbon Solutions Pvt. Ltd. which is operating with the consent of TNPCB. The carbon activation is done in kilns by passing steam. Committee members are of the opinion that the issues raise in the present case are not relevant to this industry as it is not manufacturing charcoal. Further, adequate pollution control systems are prescribed in the TNPCB consent conditions are found to be in operation.”

**ACTIVATED CARBON MANUFACTURING PROCESS:**



### **AIR EMISSION AND WATER DISCHARGE:**

The Respondent No.3 M/s United Carbon Solutions Pvt. Ltd. premises is having 33 species of trees in 2,532 Nos. and 17 species of plants in 1,681 Nos. The irrigation is done out of the final discharge water from the plant. Henceforth, there is zero water discharge. The air quality is within the permissible limits and the TNPCB does the online stack monitoring and is having result analysis data for all these years.

True copy of the Green Belt Development of the United Carbon Solutions Pvt. Ltd. in S.F.No.1147/1A, Vattamalai Village, Kangayam is annexed hereto and marked as **ANNEXURE R1**

True copy of the Air Emission and Water Test Report from 2017 to 2022 is annexed hereto and marked as **ANNEXURE R2**

### **FINE DUST CONTROL WET SCRUBBER SYSTEM:**

The 3<sup>rd</sup> Respondents Activated Carbon plant, the ultra-fine dust emission which is generated in the process hall is now sucked through 6 numbers of 20 HP Axial draft fan system which is inbuilt to the ducts which covers the entire factory like Kiln, Crushing, Screening and Packing areas. It is passed through the cyclone system with wet scrubber linked with cyclonic scrubber attached with 6 mtr stack in serial connection. The dust will be

connected to the wet scrubber system in which it is wetted by spray nozzle system. The above water is re-circulated using 1% of detergent system. Hence, all dusts are completely connected by one number of cyclone and one number of wet scrubber systems with cyclonic scrubber system.

True copy of the Factory Ultra Fine Dust Emission Control Wet Scrubber System is annexed hereto and marked as **ANNEXURE R3**

### **EVAPORATOR SYSTEM:**

Multiple effect evaporator operates in a principle of reducing boiling point with reduced pressure. Effluent is passed via pre heater to increase its temperature to boiling point of first calandrias. Then it is sent to 1<sup>st</sup> calandrias tube side. Steam is sent to 1<sup>st</sup> calandria via thermos vapor compressor. A part of steam from 2<sup>nd</sup> calandria is recirculated via thermos vapor compressor. Evaporated water vapor from 1<sup>st</sup> calandrias send to 2<sup>nd</sup> calandrias and unevaporated effluent is sent to 2<sup>ns</sup> calndrias. Here, further evaporation is done. Finally, all the vapors are condensed in surface condenser and the condensed water is pumped out using Condensate Pump. Heat from the removed vapor is taken out in water and cooled in cooling tower.

True copy of the Evaporator System adopted by United Carbon Solutions Pvt Ltd is annexed hereto and marked as **ANNEXURE R4**

3. **Counter Affidavit:**

- I) That the Respondent No.3 M/s United Carbon Solutions Pvt. Ltd. premises is having 33 species of trees in 2,532 Nos. and 17 species of plants in 1,681 Nos. The irrigation is done out of the final discharge water from the plant. Henceforth, there is zero water discharge. The air quality is within the permissible limits and the Respondent No.1 does the online stack monitoring and is having result analysis data for all these years.
- II) That it is submitted that the recent invasion of exotic Rugose Spiraling Whitefly is the factor affecting coconut ecosystem and is prevailing almost in all parts of Tamil Nadu & Kerala and the applicant farm is affected by it. In the Indian Coconut Journal Edition of September, 2019 an article was published about the Bio-Scavenging Action. It states that extensive de-sapping by nymphs and adult rugose spiraling whiteflies from under surface of palm leaflets and under storey crops in palm based cropping system. Such deposits of honey dew deposits attracted sooty mould fungus belonging to *lephtoxypium sp* and become

blackened interfering with the photosynthesis activity of the plants. In certain sever cases, the entire upper surface of palm leaflets and under storey intercrops are deposited with the thick layer of sooty mould fungus producing a sick look on palms and intercrops.

III) That this invasive insect comes from Florida and was first spotted in Pollachi in 2016. In its larval stage, it feeds on the sap of the coconut fronds. Adult insects create white coloured formations underneath the leaves, which then turn black due to fungal formation. This causes 20% drop in production. The pest also spreads between trees easily. The Tamil Nadu State Government sanctioned this year a total fund of Rs.5.25 crore to tackle the pest which affected 25,000 hectares in the State. The answering respondent craves leave of this Hon'ble Tribunal to bring it on record various journal articles and newspaper reports which covers this whitefly scourge.

IV) That this Hon'ble Tribunal in its Common Judgment in O.A.No.286 of 2013 (SZ), O.A.No.112 of 2015 (SZ) and Ors. dt.20.11.2020 held in para 43 at page 60 that

“There is only one activated carbon manufacturing unit in the area namely M/s United Carbon Solutions Pvt. Ltd. which is

operating with the consent of TNPCB. The carbon activation is done in kilns by passing steam. Committee members are of the opinion that the issues raised in the present case are not relevant to this industry as it is not manufacturing charcoal. Further, adequate pollution control systems are prescribed in the TNPCB consent conditions and are found to be in operation.”

- V) That the answering respondent further relies on para 15 of this O.A.No.20/2022, pertaining to W.P.No.29295 of 2019 filed by one Mr.Vasudevan before the Hon’ble High Court of Madras which came to be disposed with a direction to the Pollution Control Board to inspect the subject industry. However, even during this inspection it appears that the 3<sup>rd</sup> Respondent herein was given a clean chit.
- VI) That the answering respondent appreciates the Report dt.10.07.2020 of the Department of Public Health and Preventive Medicine Chief Water Analyst’s Laboratory, Coimbatore relied upon by the Applicant where the result of the analysis reveals that “.... The excess mineral content is due to natural geographic condition and not due to pollution. Hence, it is considered as UNFIT for drinking and also for other domestic purposes in its present condition.”

- VII) That there is a vast difference relating to charcoal manufacturing activity and manufacture of activated carbon. The Respondent No.3 is in the manufacture of Activated Carbon, also known as Activated Charcoal, is a form of carbon commonly used to remove contaminants and other substances from air and water among a variety of other applications. The vital benefits are:
- a) Activated Carbon is used as a key technology deployed in the global response to COVID – 19.
  - b) In medical settings, Activated Carbon is also used to protect patients as a primary technology used in kidney dialysis machines.
  - c) In Scandinavian countries, it is mandated by law for the new buildings to have activated carbon filtration systems. Further for preventing escape of odors from vacuum cleaners and in kitchens, it is used to deodorize refrigerators and as a key filter in non-ducted cooker hood extractors.
  - d) Activated Carbon is used throughout the supply chain for drinking water. Similarly, is used in preparation of water in the production of Whiskey and in separating bitter oils from rum.

- e) The powdered and Granular activated carbon that removes unwanted natural and harmful anthropogenic compounds from edible oil.
- f) Purify the CO<sub>2</sub> for use in carbonated drinks.
- g) Purify fruit juices by removal of unwanted colour compounds or removal of mycotoxins such as Patulin in apple juice. Decolourise cane and beet sugar syrups, dextrose, fructose and other food products.
- h) Recover high value molecules from agricultural products.
- i) Activated Carbon is used as a primary component for extraction of gold subsequent to mining activities.

In summary, activated carbon is essential in the modern living as we know, it would not be possible without it.

VIII) That in the 3<sup>rd</sup> Respondents Activated Carbon plant, the ultra-fine dust emission which is generated in the process hall is now sucked through 6 numbers of 20 HP Axial draft fan system which is inbuilt to the ducts which covers the entire factory like Kiln, Crushing, Screening and Packing areas. It is passed through the cyclone system with wet scrubber linked with cyclonic scrubber attached with 6 mtr stack in serial connection. The dust will be connected to the wet scrubber system in which it is wetted by

spray nozzle system. The above water is re-circulated using 1% of detergent system. Hence, all dusts are completely connected by one number of cyclone and one number of wet scrubber systems with cyclonic scrubber system.

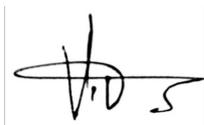
- IX) That Multiple effect evaporator operates in a principle of reducing boiling point with reduced pressure. Effluent is passed via pre heater to increase its temperature to boiling point of first calandrias. Then it is sent to 1<sup>st</sup> calandrias tube side. Steam is sent to 1<sup>st</sup> calandria via thermos vapor compressor. A part of steam from 2<sup>nd</sup> calandria is recirculated via thermos vapor compressor. Evaporated water vapor from 1<sup>st</sup> calandrias send to 2<sup>nd</sup> calandrias and unevaporated effluent is sent to 2<sup>ns</sup> calndrias. Here, further evaporation is done. Finally, all the vapors are condensed in surface condenser and the condensed water is pumped out using Condensate Pump. Heat from the removed vapor is taken out in water and cooled in cooling tower.
- X) That the 1<sup>st</sup> Respondent has certified that the stack emissions and ambient air quality are within the legal limits. It is submitted that all our chimneys are connected with Care Air Centre, Tamil Nadu Pollution Control Board, Chennai through online monitoring

system. The Respondent No.1 also takes periodical physical tests for ambient air quality.

XI) The applicant is raking up this again and again with the Government Departments despite compliance of all statutory requirements and proper approvals of the Company with an ulterior motive to extort money from the answering respondent. The Respondent can confidently say that there is absolutely Nil dust emission from the factory and is zero water discharge. The Company has spent heavy cost on Pollution Control Equipment's and adopts the finest technology in the world for sustainable development.

In the above circumstances, this Hon'ble Tribunal may be pleased to dismiss this application with cost.

Dated at Chennai on this the 10<sup>th</sup> day of May, 2022.



Ms.4403/18  
Vidhusan

Counsel for 3<sup>rd</sup> Respondent

**ANNEXURE R-1**



**ANNEXURE R-2**



**TAMILNADU POLLUTION CONTROL BOARD**  
DISTRICT ENVIRONMENTAL LABORATORY, TIRUPUR

**From**

Thiru.P.K.Raguraman, M.Sc., Dip(Ind.Safety)  
Deputy Chief Scientific Officer,  
District Environmental Laboratory,  
Tamil Nadu Pollution Control Board  
IInd Floor, Kumaran Complex,  
Kumaran Road, Tiruppur.

**To** ✓

M/s.United Carbon Solutions Private Limited,  
SF.No.1147/1 A, A.P.Pudur Post,  
Vattamalai Village, Kangeyam Taluk,  
Tiruppur District – 638 701.

**Letter No.TNPCB/DEL/TPR/AAQS/F.No.U - 3 /16-17/ Dated: 27.03.2017 .**

**Sir,**

**Sub :** DEL, Tiruppur -Furnishing of Report of Analysis of Ambient Air  
Quality/Stack Monitoring / Ambient Noise Level Survey – Regarding.

**Ref :** 1. T.O. Lr.No.DEL/TPR/AAQS/U-3/2016-17/dt.26.05.2016.  
2. Your Lr.No. Nil /dt.23.02.2017.  
3. Cash Receipt No. 43036 Dated.01.03.2017 for Rs.37,000/-

\*\*\*

I am sending herewith the Report of Analysis of Ambient Air Quality /Stack Monitoring/  
Ambient Noise Level Survey conducted in the vicinity of your industry M/s. United Carbon Solutions  
Private Limited, Vattamalai Village, Kangeyam Taluk, Tiruppur District-638 701 on 16.03.2017  
along with an inference report and bill for Rs. 44, 600/- (Rupees Forty four thousand and six  
hundred Only) towards the above survey / analysis charges and the same has been adjusted vide  
reference (3) cited.

Kindly acknowledge the receipt of the above without fail.

*S.K.R. Raguraman 28/3/17*  
**Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR**

**Encl:** As above:

**Copy Submitted to :**

1. The Director (Labs) TNPCB, Chennai for favour of kind information please.
2. The District Environmental Engineer, TNPC Board, Tiruppur(N), Tiruppur(S),  
Perundiurai, Erode for favour of kind information please.
3. Copy to Lab file.





TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY, TIRUPUR

**STACK MONITORING SURVEY-Report of Analysis**

**Report No. 82 /SM/2016-2017**

**Date: 27.03.2017 .**

Name and Addresses of the Industry : M/s.United Carbon Solutions Private Limited,  
SF.No.1147/1 A, A.P.Pudur Post,  
Vattamalai Village, Kangeyam Taluk,  
Tiruppur District – 638 701.

Date of Survey : 16.03.2017

**Stack Monitoring Survey Results**

Sl.No	Stack Attached to	Stack Temp*°C	Velocity in (m/sec)	Discharge rate in (Nm <sup>3</sup> /day)	Pollutants Concentration (mg/Nm <sup>3</sup> )				
					PM	SO <sub>2</sub>	NO <sub>x</sub>		
1.	WHRB – I attached to kiln I & II	164	18.34	216313	122	12	4		
2.	WHRB – II attached to kiln III & IV	506	8.48	81330	139	16	7		

*S. S. Srinivasan*  
*28/3/17*  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR

*9*  
*28/3*



TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY, TIRUPUR

**AMBIENT / SOURCE NOISE LEVEL SURVEY – Report of Analysis**

Report No. 82 /NLS/2016-2017

Date: 27 .03.2017 .

1.	Name of the Industry	:	M/s.United Carbon Solutions Private Limited,
2.	Address of the Industry	:	SF.No.1147/1 A, A.P.Pudur Post, Vattamalai Village, Kangeyam Taluk, Tiruppur District – 638 701.
3.	Date of Survey	:	16.03.2017
Category	Red/Large	Land use classification	-
Type of Survey	Ambient	Time of Survey	Day
Meteorological conditions	Calm		

**Logging Parameters**

Instrument Used	LARSON & DAVIS -814	Serial No.	256
Logging Interval	10 Minutes each point	Measuring Range	40 - 120
Weighting	"A"	Time Weighting	FAST
Sound Incidence	Random	Time in hrs	13.20 to 14.00

**Report of Noise Level Monitoring**

No	Location	Distance (m)	Director	Sound Level – dB(A)					
				Leq	L <sub>90</sub>	L <sub>50</sub>	L <sub>10</sub>	Min	Max
1.	Recorded Near Bore well area.	170	NE	45.6	45.4	46.4	48.6	44.6	53.0
2.	Near Raw material storage yard.	100	E	53.9	53.1	54.4	57.4	50.1	57.9
3.	Near unit's canteen area.	120	SE	44.0	42.4	45.2	48.4	41.6	55.6
4.	Near unit's staff quarters back side.	160	SW	52.9	52.4	53.4	57.1	51.7	65.7
5.	Near unit's administrative building.	140	NW	52.9	50.7	52.2	56.4	48.7	59.8

Note :L<sub>90</sub> : Value refers to background noise, L<sub>50</sub>: Value refers to mean nose  
:L<sub>10</sub>: Value refers to nuisance or annoyance level, Leg: Value is the average energy for the measured period.

*B.L.P. Kumar 27/3/17*  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR

*Q*  
*2017*



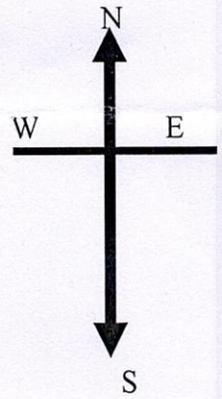
## AMBIENT AIR QUALITY SURVEY

### Schematic diagram showing location of sampling

Report No. : 82/AAQ/SM/2016 – 2017

Name and address of the Industry : M/s. United Carbon Solutions Private Limited,  
SF.No.1147/1 A, A.P.Pudur Post,  
Vattamalai Village, Kangeyam Taluk,  
Tiruppur District – 638 701.

Date of survey : 16.03.2017



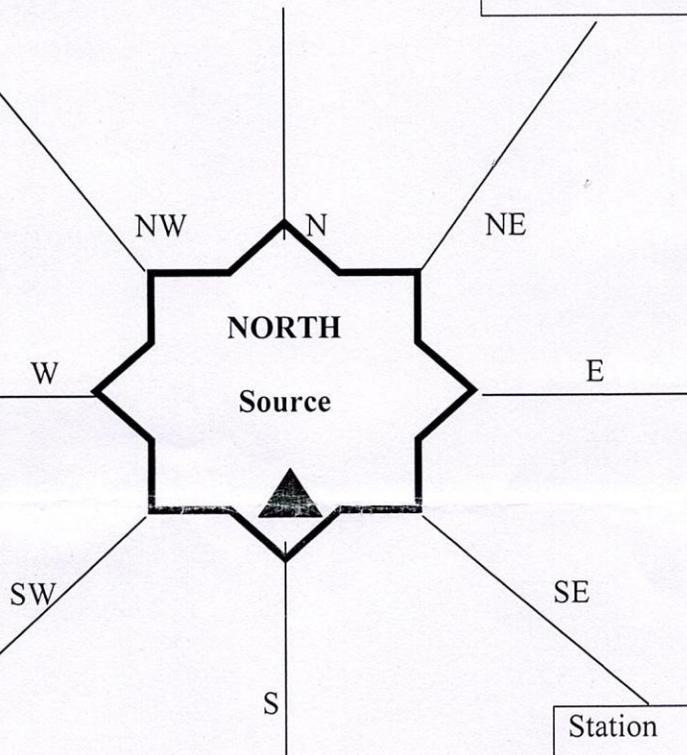
Station ; V
SPM : 61
SO <sub>2</sub> : 8
NO <sub>x</sub> : 22

Station : I
SPM : 48
SO <sub>2</sub> : 7
NO <sub>x</sub> : 18

Station : IV
SPM : 78
SO <sub>2</sub> : 14
NO <sub>x</sub> : 26

STATION : III
SPM : 80
SO <sub>2</sub> : 15
NO <sub>x</sub> : 23

Station : II
SPM : 63
SO <sub>2</sub> : 11
NO <sub>x</sub> : 21



Wind Direction: NE to SW

*Handwritten signature and date: 28/3/17*

Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.

*Handwritten signature and date: 28/3/17*



**TAMIL NADU POLLUTION CONTROL BOARD**  
District Environmental Laboratory, Tiruppur – 1

*General Particulars*

Report No. 82/AAQ/SM/2016-17

1.Name and Address of the Industry: M/s.United Carbon Solutions Private Limited,  
SF.No.1147/1 A, A.P.Pudur Post,  
Vattamalai Village, Kangeyam Taluk,  
Tiruppur District – 638 701.

2.Date of Survey : 16.03.2017

Sl. No.	Particulars	
1.	Process Description	Attached
2.	Emission Sources	Rotary kiln, WHRB,3T Boiler and Crinding and packing section.
3.	Fugitive Emission Sources	Raw material handling and packing operations.
4.	Raw Material Consumptions	Coconut shell charcoal – 79.6 MT
5.	Production Capacity as per Air Consent order No. & Date	Activated carbon – 1000 T/M 160724656929, dt.22.07.2016
6.	Production on the day of Survey	30.4 MT
7.	Percent production with respect to Air Consent Order	91.2%
8.	Air Consent Order No. Validity upto 31 <sup>st</sup> March 20.....	160724656929, dt.22.07.2016 Valid up to 31.03.2017
9.	Details of APC measures	1).Settling chamber attached with Rotary kiln 1 to 5 2).Wet scrubber attached with waste heat recovery Boiler- 1 to 3 3).Bag filters attached with activated charcoal crushing & Screening – 1 to 3.
10.	Functional Status of APC measures	Functioning
11.	Compliance with Consent Conditions	Complied
12.	Field Observations	-

*P. K. S. Srinivasan 20/3/17*  
**Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR**

*S. S. Srinivasan 20/3/17*



**TAMILNADU POLLUTION CONTROL BOARD**  
District Environmental Laboratory, Tiruppur  
Stack Details

Report No. 82/AAQ/SM/2016 – 2017

1. Name and Address of the Industry: M/s. United Carbon Solutions Private Limited,  
SF.No.1147/1 A, A.P.Pudur Post,  
Vattamalai Village, Kangeyam Taluk,  
Tiruppur District – 638 701.

2. Date of Survey : 16.03.2017

Sl. No.	Particulars	1	2
1.	Stack attached to	WHRB-I (attached to Kiln I & II)	Rotary Kiln – 4
2.	Details of process stack	Steam generation	Charcoal activation.
3.	Height from G Level in (m)	30	18
4.	Diameter in (m)	0.6	0.5
5.	Port hole height from Ground Level or bends or ducts in (m)	23	13
6.	Fuel Used (with % Sulphur content)	Waste heat kiln 1 & 2	Charcoal
7.	Fuel Consumption rate per day (mention units)	-	-
8.	Boiler type and capacity	3 T / hr	7 T/day
9.	APC Measures provided	Wet scrubber	Settling chamber
10.	APC functional status	Functioning	Functioning
11.	Ambient temp in °K	304	306
12.	Temp of flue gas in °K	437	779
12.16	Velocity of flue gas in m/sec	18.34	8.48
14.	Volume of flue gas sampled in m <sup>3</sup>	1.008	0.506
15.	Gaseous Discharge rate per day in Nm <sup>3</sup> /day	216313	81330
16.	Combustion efficiently %	--	

*(Handwritten signature)*  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR

*(Handwritten signature)*  
2017



TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY, Tiruppur.

**INFERENCE REPORT ON AAQS / SM**

1. Name of Industry : M/s.United Carbon Solutions Private Limited,  
SF.No.1147/1 A, A.P.Pudur Post,  
Vattamalai Village, Kangeyam Taluk,  
Tiruppur District – 638 701.
2. Pollution Category : Red/Large
3. Date of AAQ survey : 16.03.2017
4. Predominant Wind Direction : NE – SW
5. Weather condition : Clear & Partially cloudy

**STATUS OF POLLUTANTS LEVEL**

**II. AMBIENT AIR QUALITY :-**

1. Total No. of AAQ stations monitored : 5
2. No. of AAQ stations in which Pollutants  
Level exceeded the Boards standards: Nil

Maximum and Minimum value of Pollutants Level observed:

Sl.No.	POLLUTANT	Values in microgram/m <sup>3</sup>		Board's Standard (As per consent order)
		Maximum	Minimum	
1.	Suspended Particulate Matter (PM10)	80	48	100
	PM2.5	-	-	60
2.	<b><u>Gaseous Pollutants:-</u></b> SO <sub>2</sub>	15	7	80
	NO <sub>x</sub>	26	18	80

**II. STACK MONITORING:-**

1. Total No. of Stacks Monitored : 2
2. No. of Stacks in which Pollutant level  
Exceeded the Boards standards : -

*(Handwritten signature and date 28/3/17)*  
Dy.Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
Tiruppur.

*(Handwritten signature and date 28/3)*



**TAMILNADU POLLUTION CONTROL BOARD**

From

P.K.Raguraman, M.Sc., Dip(Ind.Safety)  
Deputy Chief Scientific Officer,  
District Environmental Laboratory  
Tamilnadu Pollution Control Board  
IInd Floor, Kumaran Complex,  
Tiruppur – 641 601.

To ✓

M/s. United Carbon Solutions (P) Ltd.,  
SF.No.1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701

Lr.No.TNPC Bd/DEL-TPR/Air Survey/F. U-3/17-18, Dt.20.11.2017.

Sir,

Sub: Furnishing of Report of Analysis of Ambient Air Quality /  
Stack Monitoring / Ambient Noise Level Survey – Reg.

- Ref: 1. This office Lr.No. DEL-TPR/AAQS/F.U-3/2017-18/dt.15.06.2017.  
2. Your Lr.No. Nil, dt. 17.11.2017  
3. Cash Receipt No. 18350, dt.20.11.2017, Rs.44,600/-

-----

I am sending herewith the Report of Analysis of Ambient Air Quality / Stack Monitoring /  
Ambient Noise Level Survey conducted in the vicinity of your industry on 14.11.2017 with  
invoice for Rs. 44,600/- (Rupees Forty four thousand and six hundred only) towards the above  
survey / analysis charges, and the same has been adjusted vide reference (3) cited.

Kindly acknowledge the receipt of the above without fail.

*P.K.R. Raguraman*  
21/11/17  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR

Encl.: As above.

Copy submitted to:

1. The Director (Labs), TNPC Bd, Chennai for favour of kind information please.

Copy to:-

1. The District Environmental Engineer, TNPC Bd, Tiruppur(N),(S), ~~Perundurai, Erode~~  
for favour of kind information please.

2. Copy to file.



**TAMIL NADU POLLUTION CONTROL BOARD**  
District Environmental Laboratory, Tiruppur – 1  
AMBIENT AIR QUALITY SURVEY – Report of Analysis

Report No. 68 / AAQS/2017-2018

Date: 20.11.2017

1. Name of the Industry : M/s.United Carbon Solutions (P) Ltd.,  
2. Address of the Industry : SF.No.1147/1A, A.P.Pudur (PO),  
Vattamalai Village, Kangeyam (TK),  
Tiruppur District – 638 701  
3. Date of Survey : 14.11.2017  
4. Duration of Survey : 8 Hours  
5. Category : Red / Large  
6. Land use classification : Residential

**Meteorological Conditions**

Ambient Temperature (°C)	Min	Max	Relative Humidity (%)	Min	Max
	27.0	33.5		41	59
Weather Condition	Partially cloudy		Rain Fall (mm)	Nil	
Predominant Wind Direction	NE - SW		Mean Wind Speed (km/hr)	-	

**Ambient Air Quality Survey Results**

Sl. No.	Location	Direction *	Distance (m) *	Height Form GL (m)	Pollutants Concentration (microgram / m <sup>3</sup> )			
					PM 2.5	PM 10	SO <sub>2</sub>	NO <sub>x</sub>
1	On top of the scaffolding near unit's borewell.	NE	170	2	-	32	9	25
2	On top of the scaffolding near the unit's canteen.	SE	120	2	-	51	11	17
3	On top of the scaffolding near the staff quarters back side.	SW	160	2	38	61	12	24
4	On top of the scaffolding near Boiler (back side).	W	85	2	-	53	13	15
5	On top of the scaffolding near unit's Admin building.	NW	140	2	-	70	11	28

Note: \* With respect to major emission sources.

*(Signature)*  
**Dy. Chief Scientific Officer,**  
**District Environmental Laboratory**  
**Tamil Nadu Pollution Control Board**  
**TIRUPPUR.**

Test Performed	Test Method
PM10	IS 5182 : (Part 23) – 2006
SO <sub>2</sub>	Modified West – Graeke / IS 5182 : (Part 2) – 2001 RA: 2012
NO <sub>x</sub>	Jacobs – Hochheiser / IS 5182 : (Part 6) – 2006 RA:2012

*(Signature)*  
E.S.

*(Signature)*  
D.C.S.O  
21/11/17

*(Signature)*  
Dy,Chief Scientific Officer  
DEL, TNPCB, Tiruppur.



# TAMILNADU POLLUTION CONTROL BOARD

District Environmental Laboratory, Tiruppur

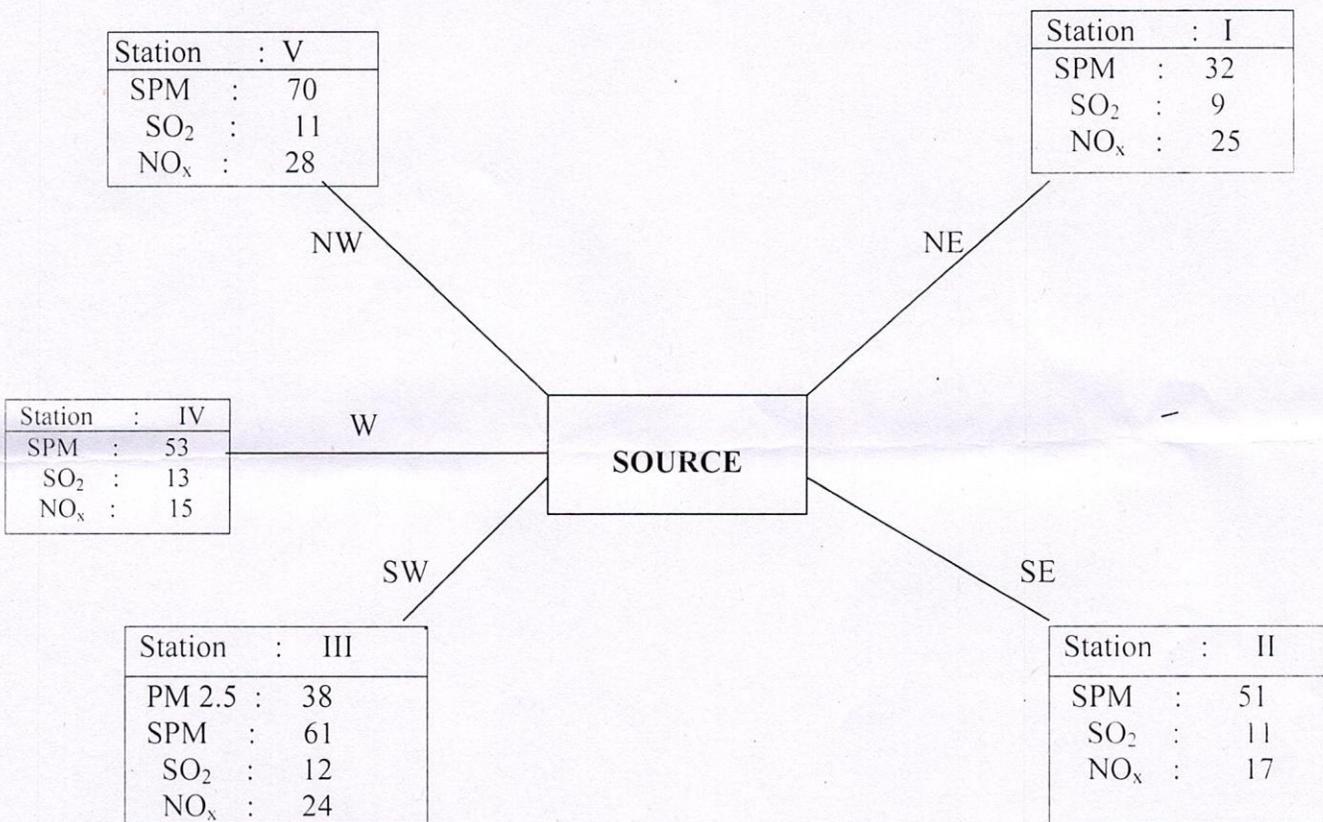
## AMBIENT AIR QUALITY SURVEY

Schematic Diagram Showing Location of Sampling

Report No. 68 /AAQ/SM/2017-2018

Name and Address of the Industry : M/s.United Carbon Solutions (P) Ltd.,  
SF.No.1147/1A, A.P.Pudur (PO),,  
Vattamalai Village, Kangeyam (TK),  
Tiruppur District – 638 701

Date of Survey : 14.11.2017



\* Indicates Less than minimum detectable limit.

Note: All the values are expressed in and restricted to sampling period of 8 hours.

Meteorological Conditions:	
Predominant Wind Direction	NE - SW
Wind Speed	-
Weather Condition	Partially cloudy
Rainfall	Nil

*E.S.*  
E.S.

*D.C.S.O*  
D.C.S.O 21/11/17

*21/11/17*  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.



**TAMIL NADU POLLUTION CONTROL BOARD**

District Environmental Laboratory, Tiruppur – 1

**STACK MONITORING SURVEY – Report of Analysis**

Report No. 68 / AAQS/2017-2018

Date: 20.11.2017

- 1. Name of the Industry : M/s.United Carbon Solutions (P) Ltd.,
- 2. Address of the Industry : SF.No.1147/1A, A.P.Pudur (PO),, Vattamalai Village, Kangeyam (TK), Tiruppur District – 638 701
- 3. Date of Survey : 14.11.2017
- 4. Type of Industry : Activated Carbon Processing

**Stack Monitoring Survey Results**

Sl. No.	Stack attached to	Stack .Temp °C	Velocity in (m/ sec)	Discharge rate In Nm <sup>3</sup> /Hour	Pollutants (mg / Nm <sup>3</sup> )		
					PM	SO <sub>2</sub>	NO <sub>x</sub>
1	WHRB - attached to kiln – III & IV	171	13.83	228915	64	11	17
2	Rotary kiln – I	570	10.19	62098	115	9	18

Test Performed	Test Method
PM10	IS 5182 : (Part 23) – 2006
SO <sub>2</sub>	Modified West – Graeke / IS 5182 : (Part 2) – 2001 RA: 2012
NO <sub>x</sub>	Jacobs – Hochheiser / IS 5182 : (Part 6) – 2006 RA:2012

*E.S.*  
E.S.

*D.C.S.O*  
D.C.S.O  
21/11/17

*Dy. Chief Scientific Officer*  
Dy,Chief Scientific Officer  
DEL, TNPCB, Tiruppur.





**TAMIL NADU POLLUTION CONTROL BOARD**

District Environmental Laboratory, Tiruppur – 1  
**STACK MONITORING SURVEY – Additional details**

Report No.68 / SM/2017-2018

Date: 20.11.2017.

- 1. Name of the Industry : M/s.United Carbon Solutions (P) Ltd.,
- 2. Address of the Industry : SF.No.1147/1A, A.P.Pudur (PO),  
Vattamalai Village, Kangeyam (TK),  
Tiruppur District – 638 701
- 3. Date of Survey : 14.11.2017
- 4. Type of Industry : Activated Carbon / Processing

**Stack Monitoring Additional details**

Sl.No.	Details of stack mentioned in the Air Consent order	Details of stack available and in working condition	Details of stack for which stack Emission sampling have been done	Justification for the left out of stack Emission Sampling
1.	Rotary kiln-1 to 5	Rotary kiln-1 to 5 Working condition	Rotary kiln – I SPM,SO2,NOx sampling done	Rotary Kiln – 1 to 5 Stack Identical
2.	Waste heat recovery boiler 1 to 3	Waste heat recovery boiler 1 to 3 Working condition	Waste heat recovery boiler –II SPM,SO2,NOx sampling done	Waste heat recovery boiler 1 to 3 Identical stack.
3.	Activated charcoal crushing,screening and packing-3 Nos	Activated charcoal crushing,screening and packing-3 Nos Working condition.	Sampling not done.	Sampling provision not provided.
4.	DG-set 250 KVA & 180 KVA	DG set – 250 KVA & 180 KVR Working condition.	Sampling not done.	Standby by

*E.S.*

*D.C.S.02/11/17*

*21/11/17*  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.



**TAMIL NADU POLLUTION CONTROL BOARD**

District Environmental Laboratory, Tiruppur – 1  
AMBIENT/SOURCE NOISE LEVEL SURVEY - Report of Analysis

Report No. 68/ NLS/2017-2018

Date: 20.11.2017

1.	Name of the Industry	M/s.United Carbon Solutions (P) Ltd.,		
2.	Address of the Industry	SF.No.1147/1A, A.P.Pudur (PO),, Vattamalai Village, Kangeyam (TK), Tiruppur District – 638 701		
3.	Date of Survey	14.11.2017		
Category		Land use Classification		Residential
Type of Survey		Ambient	Time of Survey	DAY
Meteorological conditions		Partially cloudy		

**Logging Parameters**

Instrument Used	Larson & Davis	Serial No	814		
Logging Interval	10 Minutes each point	Measuring Range	40 - 120		
Weighting	“ A”	Peak Weighting	“C”	Time Weighting	FAST
Sound Incidence	RANDOM		Time in hrs	14.00 to 16.20	

**Report of Noise Level Monitoring**

Sl. No	Location	Duration (min)	Distance (M)	Direction	Sound Level – dB (A)					
					Leq	L90	L50	L10	Min	Max
1	Near Bore well area.	10	170	NE	49.9	47.6	51.3	60.1	46.5	73.9
2	Near Raw material storage yard.	10	100	E	48.4	47.6	49.3	55.8	46.8	59.6
3	Near unit’s canteen area.	10	120	SE	51.5	49.8	50.7	55.1	46.9	61.1
4	Near staff quarters	10	160	SW	53.2	48.0	52.0	60.0	47.2	70.3
5	Near Admin building	10	140	NW	48.4	46.8	51.1	59.8	45.2	59.5

Note: L90 Value refers to background noise; L50 Value refers to mean noise.

L10 value refers to nuisance or annoyance level : Leq value is the average energy for the measured period.

*P. Anand*  
21/11/17

**Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.**

*E.S.*  
E.S.

*S. D. G. G. G.*  
D.C.S.O 21/11/17



**TAMIL NADU POLLUTION CONTROL BOARD**

District Environmental Laboratory, Tiruppur – 1

**BILL**

Report No. 68/AAQ/SM/2017 – 2018

Bill No.	68/2017-18
Date	20.11.2017

To  
M/s.United Carbon Solutions (P) Ltd.,  
SF.No.1147/1A, A.P.Pudur (PO),,  
Vattamalai Village, Kangeyam (TK),Tiruppur District – 638 701

- Ref: 1. B.PMs.No.6 Dt.31.03.2009.  
2. This office Lr.No. DEL-TPR/AAQS/F.U-3/2017-18/dt.15.06.2017.  
3. Your Lr.No. Nil, dt. 17.11.2017.  
4. Cash Receipt No. 18350, dt.20.11.2017, Rs.44,600/-

\*\*\*\*\*

Sl. No.	Description	No. of Stations	Rate (Rs.)	Amount (Rs.)
1.	Ambient Air Quality Survey – PM <sub>10</sub> (Sampling)	5	2,000.00	10,000.00
		1	2,000.00	2,000.00
2.	Stack Monitoring – PM, SO <sub>2</sub> , NO <sub>x</sub> , PM only	2	7,500.00	15,000.00
3.	Analysis Charges – PM <sub>10</sub> & Particulate Matter	7	600.00	4,200.00
		1	1,000.00	1,000.00
4.	Analysis Charges – Sulphur dioxide	7	600.00	4,200.00
5.	Analysis Charges – NO <sub>2</sub> & Nitrogen Oxides	7	600.00	4,200.00
6.	Ambient Noise Level testing charges (First 5 Points)	1 <sup>st</sup> 5 points	4,000.00	4,000.00
7.	Ambient Noise Level testing		300.00	
Total				44,600.00
Less: Advance – (Vide Ref. No.CR.No.18350,dt.20.11.17)				44,600.00
Excess payment				Nil
Balance to be paid				Nil

E.S.

D.C.S.02/11/17

Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.



**TAMIL NADU POLLUTION CONTROL BOARD**

District Environmental Laboratory, Tiruppur – 1  
General Particulars

Report No.68/AAQ/SM/2017-18

Name and Address of the Industry : M/s.United Carbon Solutions (P) Ltd.,  
SF.No.1147/1A, A.P.Pudur (PO),,  
Vattamalai Village, Kangeyam (TK),  
Tiruppur District – 638 701

Date of Survey : 14.11.2017

Sl. No.	Particulars	
1.	Process Description	Attached
2.	Emission Sources	Rotary Kiln, WHRB, 3T Boiler, Grinding and packing section.
3.	Fugitive Emission Sources	Raw material handling and packing operations.
4.	Raw Material Consumptions	Coconut shell Charcoal – 80.2MT
5.	Production Capacity as per Air Consent order No. & Date	Activated carbon – 1000 T/Month 1607246569291, dt.22.07.2016
6.	Production on the day of Survey	31.6 MT
7.	Percent production with respect to Air Consent Order	94.8%
8.	Air Consent Order No. Validity upto 31 <sup>st</sup> March 20.....	170829461990, dt.12.10.2017 Vaild up to 31.03.2018
9.	Details of APC measures	1).Settling chamber attached with Rotary kiln- 1 to 5 2),Wet scrubber attached with waste heat recovery – Boiler – 1 to 3 3).Bag filters attached with activated charcoal crushing & screening - 1 to 3
10.	Functional Status of APC measures	Functioning
11.	Compliance with Consent Conditions	Complied
12.	Field Observations	

*A. K. Ramesh*  
21/11/17

Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.

*E.S.*  
E.S.

*S. Dh. Comy*  
D.C.S.O 21/11/17



District Environmental Laboratory, Tiruppur -1.

INFERENCE REPORT ON A.A.Q.S./ S.M.

1. Name of Industry : M/s.United Carbon Solutions (P) Ltd.,  
SF.No.1147/1A, A.P.Pudur (PO),,  
Vattamalai Village, Kangeyam (TK),  
Tiruppur District - 638 701
2. Pollution Category : Red/ Large
3. Date of A.A.Q. Survey : 14.11.2017
4. Predominant Wind Direction : NE - SW
5. Weather condition : Partially cloudy

STATUS OF POLLUTANTS LEVEL

LV. AMBIENT AIR QUALITY :-

1. Total No. of A.A.Q. stations monitored : 5
5. No. of A.A.Q. stations in which Pollutants  
Level exceeded the Boards standards : NIL

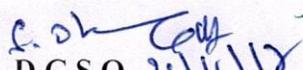
Maximum and Minimum values of Pollutants Level observed:

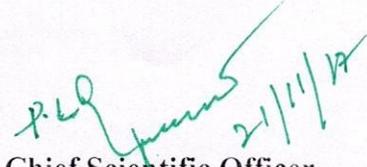
Sl. No.	POLLUTANT	Values in microgram/m <sup>3</sup>		BOARD'S STANDARD (As per consent order)
		Maximum	Minimum	
1.	PM <sub>10</sub>	70	32	100
2.	PM <sub>2.5</sub>	38	-	60
	<u>GASEOUS POLLUTANTS:-</u>			
	(iii) SO <sub>2</sub>	9	13	80
	(ii) NO <sub>2</sub>	15	28	80

II. STACK MONITORING:-

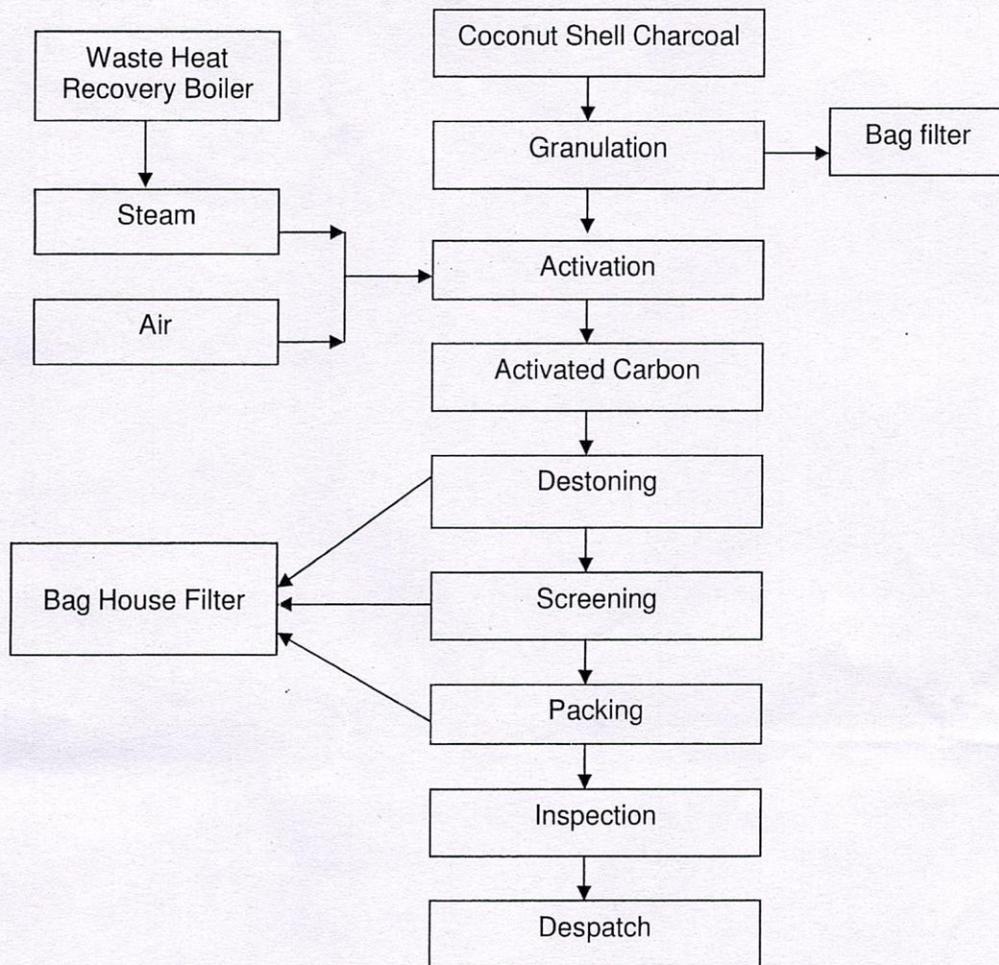
1. Total No. of Stacks Monitored : 2
5. No. of Stacks in which Pollutants level  
Exceeded the Boards standards : Nil

  
E.S.

  
D.C.S.O 21/11/17

  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.

## MANUFACTURING PROCESS



### The Manufacturing process involves

1. Activation
2. Destoning
3. Screening
4. Packing
5. Inspection and Despatch



**TAMILNADU POLLUTION CONTROL BOARD**

District Environmental Laboratory, Tiruppur – 1.

From

P.K.Raguraman, M.Sc., Dip (Ind.Safety),  
Deputy Chief Scientific Officer,  
District Environmental Laboratory,  
Tamilnadu Pollution Control Board,  
IInd Floor, Kumaran Complex,  
Tiruppur – 641 601.

To

M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.

Lr.No.TNPC Bd/DEL-TPR/Air Survey/ F.No.U-3 /18-19, Dt.05.03.2019

Sir,

Sub: Furnishing of Report of Analysis of Ambient Air Quality /  
Stack Monitoring / Ambient Noise Level Survey – Reg.

Ref: 1. This office Lr.No. DEL-TPR/AAQS/ F. No.U-3 /2018-19/dt: 21.05.2018  
2. Your Lr.No: Nil Dt:  
3. Cash Receipt No: 45833 dt: 04.02.2019 Rs: 44,600/-

----

I am sending herewith the Report of Analysis of Ambient Air Quality / Stack Monitoring / Ambient Noise Level Survey conducted in the vicinity of your industry on 21.02.2019 with invoice for Rs. 44,600 /- (Rupees Forty Four Thousand Six Hundred only) towards the above survey / analysis charges, and the same has been adjusted vide reference (3) cited.

Kindly acknowledge the receipt of the above without fail.

  
**Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.**

Encl.: As above.

Copy submitted to:

1. The Deputy Director (Labs), TNPC Bd, Chennai for favour of kind information please.
2. The District Environmental Engineer, TNPC Bd, Tiruppur (N) for favour of kind information please.
3. Copy to file.



**TAMILNADU POLLUTION CONTROL BOARD**  
District Environmental Laboratory, Tiruppur – 1  
**AMBIENT AIR QUALITY SURVEY – Report of Analysis**

Report No. 42 / AAQS/2018-2019

Date.05.03.2019

1. Name of the Industry : M/s. United Carbon Solutions (P) Ltd.,  
2. Address of the Industry : SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.  
3. Date of Survey : 21.02.2019  
4. Duration of Survey : 8 Hours  
5. Category : Red / Large  
6. Land use classification : Unclassified

**Meteorological Conditions**

Ambient Temperature ( <sup>o</sup> C)	Min	Max	Relative Humidity (%)	Min	Max
	29	32		41	52
Weather Condition	Partially Cloudy		Rain Fall (mm)	Nil	
Predominant Wind Direction	NE – SW SW – NE		Mean Wind Speed (km/hr)	-	

**Ambient Air Quality Survey Results**

Sl. No.	Location	Direction *	Distance (m) *	Height Form GL (m)	Pollutants Concentration (microgram / m <sup>3</sup> )			
					PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
1.	On top of scaffolding near unit's Bore well	NE	170	2	-	81	10	15
2.	On top of scaffolding near Unit's Canteen	SE	120	2	-	79	10	15
3.	On top of scaffolding near Staff Quarters back side	SW	160	2	46	87	12	17
4.	On top of scaffolding near Boiler (Back side)	W	85	2	-	90	12	18
5.	On top of the scaffolding near unit's Admin Building	NW	140	2	-	88	12	15

note: \* With respect to major emission sources.

*P. V. [Signature]*  
**Dy. Chief Scientific Officer,**  
**District Environmental Laboratory**  
**Tamil Nadu Pollution Control Board**  
**TIRUPPUR.**

Test Performed	Test Method
PM10	IS 5182 : (Part 23) – 2006
SO2	Modified West – Graeke / IS 5182 : (Part 2) – 2001 RA: 2012
NO2	Jacobs – Hochheiser / IS 5182 : (Part 6) – 2006 RA:2012

*P. V. [Signature]*  
**Dy,Chief Scientific Officer**  
**DEL, TNPCB, Tiruppur.**



**TAMILNADU POLLUTION CONTROL BOARD**

District Environmental Laboratory, Tiruppur – 1.

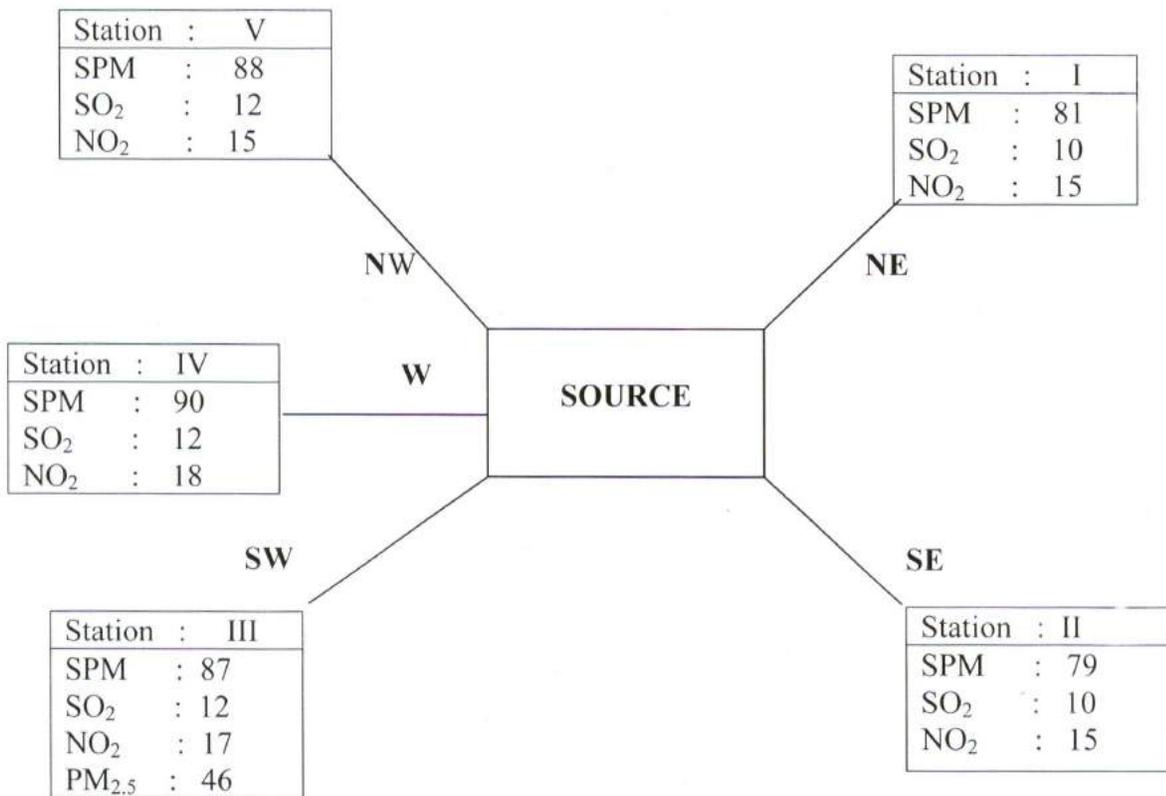
**AMBIENT AIR QUALITY SURVEY**

Schematic Diagram Showing Location of Sampling

Report No.42/AAQ/SM/2018-2019

1. Name and Address of the Industry : M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.

2. Date of Survey : 21.02.2019



\* Indicates Less than minimum detectable limit.

Note: All the values are expressed in and restricted to sampling period of 8 hours.

Meteorological Conditions:	
Predominant Wind Direction	NE – SW & SW – NW
Wind Speed	--
Weather Condition	Partially Cloudy
Rainfall	-

  
 Dy. Chief Scientific Officer,  
 District Environmental Laboratory  
 Tamil Nadu Pollution Control Board  
 TIRUPPUR.



**TAMILNADU POLLUTION CONTROL BOARD**  
District Environmental Laboratory, Tiruppur – 1  
**STACK MONITORING SURVEY – Report of Analysis**

Report No.42/ AAQS/2018-2019

Date.05.03.2019

1. Name of the Industry : M/s. United Carbon Solutions (P) Ltd.,  
2. Address of the Industry : SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.  
3. Date of Survey : 21.02.2019  
4. Type of Industry : Activated Carbon Processing

**Stack Monitoring Survey Results**

Sl. No	Stack attached to	Stack Temp °C	Velocity in (m/ sec)	Discharge rate In Nm <sup>3</sup> /Hour	Pollutants (mg / Nm <sup>3</sup> )		
					PM	SO <sub>2</sub>	NO <sub>x</sub>
1.	WHRB – attached to kiln-III	184	15	1008.41	139	15	21
2.	Rotary Kiln - I	601	17	5037.03	80	13	20

Test Performed	Test Method
PM <sub>10</sub>	IS 5182 : (Part 23) – 2006
SO <sub>2</sub>	Modified West – Graeke / IS 5182 : (Part 2) – 2001 RA: 2012
NO <sub>x</sub>	Jacobs – Hochheiser / IS 5182 : (Part 6) – 2006 RA:2012

  
Dy, Chief Scientific Officer  
DEL, TNPCB, Tiruppur.



**TAMILNADU POLLUTION CONTROL BOARD**

District Environmental Laboratory, Tiruppur – 1.

**Stack Details**

Report No. 42/AAQ/SM/2018-2019

1. Name and Address of the Industry : M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.

2. Date of Survey : 21.02.2019

Sl. No	Particulars	I	II
1.	Stack Attached to	WHRB-II ( Kiln-III )	Rotary Kiln-I
2.	Details of process stack	Steam generation	Charcoal Activation
3.	Height from G Level in (m)	30	18
4.	Diameter in (m)	0.6	0.55
5.	Port hole height from Ground Level or bends or ducts in (m)	19	7
6.	Fuel Used (with % Sulphur content)	Waste heat recovery from KILN	Charcoal
7.	Fuel Consumption rate per day (mention units)	-	-
8.	Boiler type and capacity	3 T	7 T
9.	APC Measures provided	Wet Scrubber	Settling Chamber
10.	APC functional status	Functioning	Functioning
11.	Composition of flue gas	CO %	-
		CO <sub>2</sub> %	-
		O <sub>2</sub> %	-
12.	Moisture content in %	-	-
13.	Ambient temp in °K	302	303
14.	Temp of flue gas in °K	457	874
15.	Velocity of flue gas in m/sec	15	17
16.	Volume of flue gas sampled in m <sup>3</sup>	0.988	1.000
17.	Gaseous Discharge rate per day in Nm <sup>3</sup> /Hour	1008.41	5037.03
18.	Combustion efficiently %	-	-

*T. K. Srinivasan 5/3/19*  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.



**TAMILNADU POLLUTION CONTROL BOARD**  
District Environmental Laboratory, Tiruppur – 1.  
**STACK MONITORING SURVEY – Additional details**

Report No.42/ SM /2018-2019

Date.05.03.2019

1. Name of the Industry : M/s. United Carbon Solutions (P) Ltd.,
2. Address of the Industry : SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.
3. Date of Survey : 21.02.2019
4. Type of Industry : Activated Carbon Processing

**Stack Monitoring Additional details**

Sl.No.	Details of stack mentioned in the Air Consent order	Details of stack available and in working condition	Details of stack for which stack Emission sampling have been done	Justification for the left out of stack Emission Sampling
1.	Rotary Kiln – 1 to 5	Rotary Kiln – 1 to 5 Working Condition	Rotary Kiln –I	Rotary Kiln – 1 to 5 are identical
2.	Waste heat recovery boiler 1 to 3	Waste heat recovery boiler 1 to 3 Working Condition	WHRB-3	WHRB 1-3 are Identical
3.	Activated Charcoal Crushing, Screening & Packing – 3 Nos	Activated Charcoal Crushing, Screening & Packing – 3 Nos Working Condition	Sampling not Done	Sampling provision not available
4.	DG set 250 KVA & 180 KVA	DG set 250 KVA & 180 KVA Working Condition	Sampling not Done	Standby

  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.



**TAMILNADU POLLUTION CONTROL BOARD**

District Environmental Laboratory, Tiruppur – 1.

**AMBIENT/SOURCE NOISE LEVEL SURVEY - Report of Analysis**

Report No: 42 / NLS/2018-2019

Date:05.03.2019

1.	Name of the Industry	M/s. United Carbon Solutions (P) Ltd.,		
2.	Address of the Industry	SF.No: 1147/1A, A.P.Pudur (PO), Vattamalai, Kangeyam (TK), Tiruppur District – 638 701.		
3.	Date of Survey	21.02.2019		
Category	Red / Large	Land use Classification	Unclassified	
Type of Survey	Ambient	Time of Survey	DAY	
Meteorological conditions		Partially Cloudy		

**Logging Parameters**

Instrument Used	Larson & Davis	Serial No	824 A 2007		
Logging Interval	10 Minutes each point	Measuring Range	40-120		
Weighting	“ A”	Peak Weighting	“C”	Time Weighting	FAST
Sound Incidence	RANDOM		Time in hrs	15.00 – 16.40 hrs	

**Report of Noise Level Monitoring**

Sl No	Location	Duration (min)	Distance (M)	Direction	Sound Level – dB (A)					
					L <sub>eq</sub>	L <sub>90</sub>	L <sub>50</sub>	L <sub>10</sub>	Min	Max
1.	Recorded Near Bore Well	10	170	NE	52.1	41.9	45.6	57.2	40.9	68.6
2.	Near Raw material storage yard	10	100	E	52	38.5	51.2	54.6	35.3	68.1
3.	Near Unit’s Canteen are	10	120	SE	52.3	39.7	44.3	58.2	36.9	68.9
4.	Near Staff Quarters	10	160	SW	50.0	38.5	46.1	54.5	37.0	67.9
5.	Near Admin Building	10	140	NW	51.6	39.2	48.8	55.2	36.4	69.9

**Note:** L90 Value refers to background noise; L50 Value refers to mean noise.

L10 value refers to nuisance or annoyance level : Leq value is the average energy for the measured period.

  
**Dy. Chief Scientific Officer,**  
**District Environmental Laboratory**  
**Tamil Nadu Pollution Control Board**  
**TIRUPPUR.**



**TAMILNADU POLLUTION CONTROL BOARD**

District Environmental Laboratory, Tiruppur – 1.

**General Particulars**

Report No. 42 /AAQ/SM/2018-2019

1. Name and Address of the Industry : M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.
2. Date of Survey : 21.02.2019

Sl.No	Particulars	
1.	Process Description	Enclosed
2.	Emission Sources	Rotary Kiln , WHRB, Boilers, Grinding & Packing Units
3.	Fugitive Emission Sources	Loading Raw materials & Packing Operation
4.	Raw Material Consumptions on the day of survey	80.2 M T / day
5.	Production Capacity as per Air Consent order No. & Date	1640 T / M Consent Order No.170625400334 , dt. 23.08.2017
6.	Production on the day of Survey	31.0 MT
7.	Percent production with respect to Air Consent Order	39 %
8.	Air Consent Order No. Validity upto 31 <sup>st</sup> March 20.....	Consent Order No.170625400334 , dt. 23.08.2017 Valid up to 31.03.2022
9.	Details of APC measures	Settling Chamber – for Kilns Wet scrubbers to Boilers , Bay filters
10.	Functional Status of APC measures	Functional
11.	Compliance with Consent Conditions	Complied
12.	Field Observations	--

  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.



**TAMILNADU POLLUTION CONTROL BOARD**

District Environmental Laboratory, Tiruppur – 1.

**INFERENCE REPORT ON A.A.Q.S./ S.M.**

1. Name of industry : M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.
2. Pollution Category : Red / Large
3. Date of A.A.Q. Survey : 21.02.2019
4. Predominant Wind Direction : NE – SW & SW – NE
5. Weather condition : Partially Cloudy

**STATUS OF POLLUTANTS LEVEL**

AMBIENT AIR QUALITY :-

1. Total No. of A.A.Q. stations monitored : 5

No. of A.A.Q. stations in which Pollutants  
Level exceeded the Boards standards : NIL

Maximum and Minimum values of Pollutants Level observed:

Sl. No	POLLUTANT	Values in microgram/m <sup>3</sup>		BOARD'S STANDARD (As per consent order)
		Maximum	Minimum	
1.	PM <sub>10</sub>	90	79	100
2.	PM <sub>2.5</sub>	46	-	60
	<u>GASEOUS POLLUTANTS:-</u>			
	(i) SO <sub>2</sub>	12	10	80
	(ii) NO <sub>2</sub>	18	15	80

**II. STACK MONITORING:-**

1. Total No. of Stacks Monitored : 2
2. No. of Stacks in which Pollutants level  
Exceeded the Boards standards : Nil

  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.



**TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.**



From

Tmt.R.Kalaichelvi, M.Sc.,M.Phil.,B.Ed.,  
District Environmental Laboratory,  
TamilNadu Pollution Control Board,  
2<sup>nd</sup> Floor, Kumaran Commercial Complex,  
Kumaran Road, Tiruppur Dist – 641 601.  
0421 - 2244876 / tiruppurlab@gmail.com

To

M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.

Lr.No.TNPC Bd/DEL-TPR/Air Survey/ F.No.U-3 /19-20, Dt.23.03.2020

Sir,

Sub: Furnishing of Report of Analysis of Ambient Air Quality /  
Stack Monitoring / Ambient Noise Level Survey – Reg.

Ref: 1. This office Lr.No. DEL-TPR/AAQS/ F. No.U-3 /2019-20,dt: 21.05.2018  
2. Your Lr.No: Nil Dt:  
3. Cash Receipt No: 90367 dt:21.02.2020 Rs: 44,600/-

----

I am sending herewith the Report of Analysis of Ambient Air Quality / Stack Monitoring / Ambient Noise Level Survey conducted in the vicinity of your industry on 17.03.2020 with invoice for Rs. 1,42,400/- (Rupees One Lakh Forty Two Thousand Four Hundred only) towards the above survey / analysis charges, and the same has been adjusted vide reference (3) cited.

Kindly acknowledge the receipt of the above without fail.

*R. Kalaichelvi* 23/3/2020  
**Dy. Chief Scientific Officer,**  
**District Environmental Laboratory**  
**Tamil Nadu Pollution Control Board**  
**TIRUPPUR.**

Encl.: As above.

Copy submitted to:

1. The Deputy Director (Labs), TNPC Bd, Chennai for favour of kind information please.
2. The District Environmental Engineer, TNPC Bd, Tiruppur (N) for favour of kind information please.
3. Copy to file.



**TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.**



**AMBIENT AIR QUALITY SURVEY – Report of Analysis**

Report No. 67 / AAQS/2019-2020

Date.23.03.2020

1. Name of the Industry : M/s. United Carbon Solutions (P) Ltd.,
2. Address of the Industry : SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.
3. Date of Survey : 17.03.2020 at 06.30 PM to 02.10 AM (18.03.2020)
4. Duration of Survey : 8 Hours
5. Category : Red / Large
6. Land use classification : Unclassified

**Meteorological Conditions**

Ambient Temperature (°C)	Min	Max	Relative Humidity (%)	Min	Max
	26	32		31	58
Weather Condition	Cloudy		Rain Fall (mm)	Nil	
Predominant Wind Direction	SE – NW		Mean Wind Speed (km/hr)	-	

**Ambient Air Quality Survey Results**

Sl. No.	Location	Direction *	Distance (m) *	Height Form GL (m)	Pollutants Concentration (microgram / m <sup>3</sup> )			
					PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
1.	Process area	N	170	2	38.202	-	-	-
2.	Main Entrance Gate	NE	117	2	-	63.991	11.28	23.70
3.	First Aid room	NE	120	2	37.484	-	-	-
4.	Mr. Deivasigamani's house	E	655.48	2	-	53.182	9.27	22.15
5.	Canteen	SE	120	2	32.334	63.409	10.69	24.64
6.	Dormitory rooms	SW	152	2	37.5	-	-	-

note: \* With respect to major emission sources.

*R. Kalaiichel* 23/3/2020  
**Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.**

Test Performed	Test Method
PM10	IS 5182 : (Part 23) – 2006
SO2	Modified West – Graeke / IS 5182 : (Part 2) – 2001 RA: 2012
NO2	Jacobs – Hochheiser / IS 5182 : (Part 6) – 2006 RA:2012

*R. Kalaiichel* 23/3/2020  
**Dy, Chief Scientific Officer  
DEL, TNPCB, Tiruppur.**



**TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.**



Report No. 67 / AAQS/2019-2020

Date.23.03.2020

1. Name of the Industry : M/s. United Carbon Solutions (P) Ltd.,
2. Address of the Industry : SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.
3. Date of Survey : 17.03.2020 at 06.30 PM to 02.10 AM (18.03.2020)
4. Duration of Survey : 8 Hours
5. Category : Red / Large
6. Land use classification : Unclassified

**Meteorological Conditions**

Ambient Temperature (°C)	Min	Max	Relative Humidity (%)	Min	Max
	26	32		31	58
Weather Condition	Cloudy		Rain Fall (mm)	Nil	
Predominant Wind Direction	SE – NW		Mean Wind Speed (km/hr)	-	

**Ambient Air Quality Survey Results**

Sl. No.	Location On top of scaffolding near	Direction *	Distance (m) *	Height Form GL (m)	Pollutants Concentration (microgram / m <sup>3</sup> )			
					PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
7.	Eswaramoorthy's Coconut Farm	SW	114	2	-	64.389	10.16	19.29
8.	Eswaramoorthy's Residence	SW	129.5	2	35.802	61.934	13.01	21.41
9.	Eswaramoorthy's Oil Storage Tanks	W	128	2	-	63.991	11.34	20.45
10.	Eswaramoorthy's Coconut Drying Yard	NW	128	2	-	60.940	12.34	22.08
11.	UCS Administration Block	NW	114	2	-	64.583	10.11	17.66

note: \* With respect to major emission sources.

*R. Kalaiichel*  
23/3/2020

**Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.**

Test Performed	Test Method
PM10	IS 5182 : (Part 23) – 2006
SO2	Modified West – Graeke / IS 5182 : (Part 2) – 2001 RA: 2012
NO2	Jacobs – Hochheiser / IS 5182 : (Part 6) – 2006 RA:2012

*R. Kalaiichel*  
23/3/2020  
**Dy, Chief Scientific Officer/**  
**DEL, TNPCB, Tiruppur.**



**TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.**

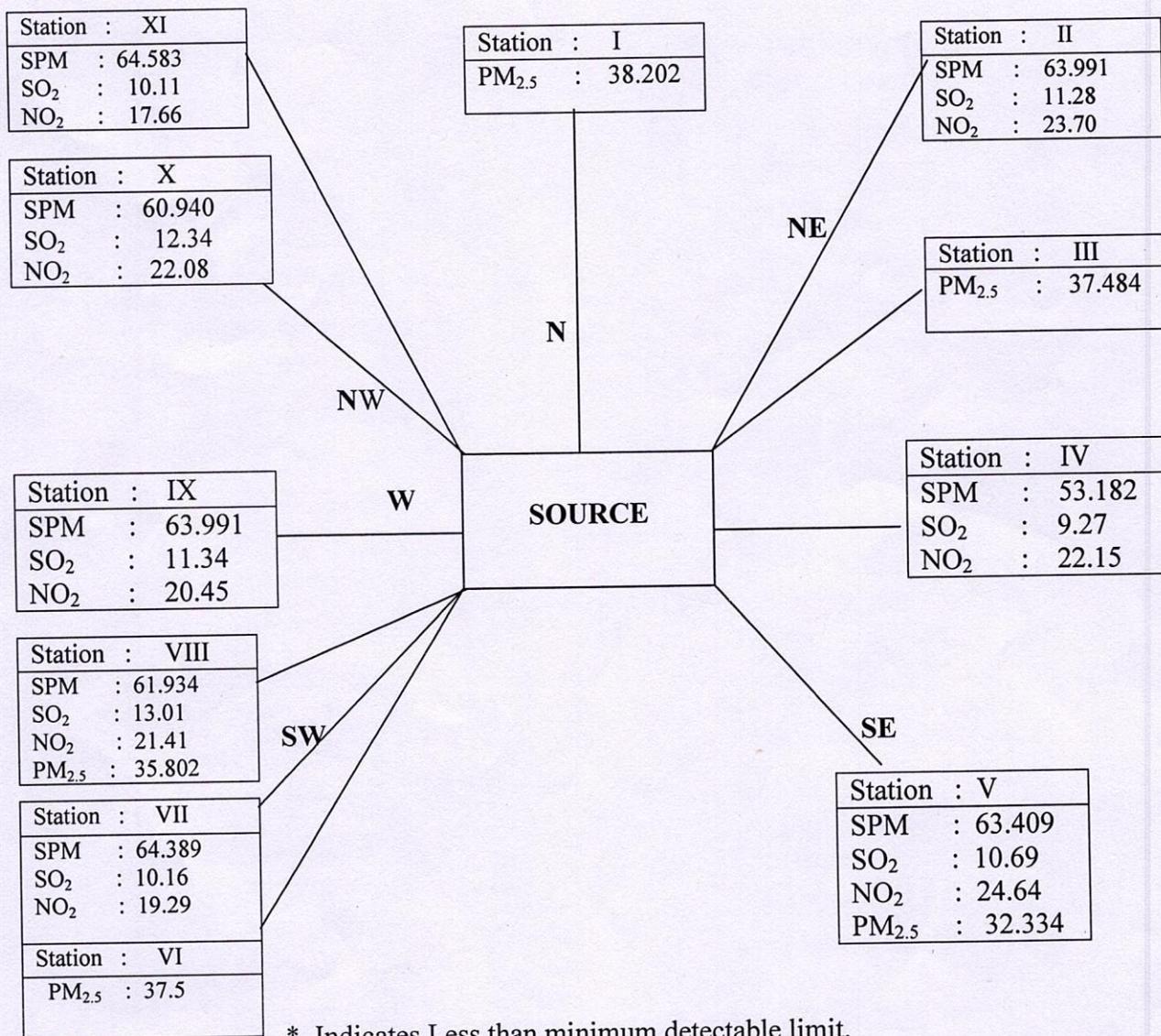


**AMBIENT AIR QUALITY SURVEY**  
Schematic Diagram Showing Location of Sampling

Report No. 67 /AAQ/SM/2019-2020

1. Name and Address of the Industry : M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.

2. Date of Survey : 17.03.2020 at 06.30 PM to 02.10 AM (18.03.2020)



Note: All the values are expressed in and restricted to sampling period of 8 hours:

Meteorological Conditions:	
Predominant Wind Direction	SE – NW
Wind Speed	--
Weather Condition	Cloudy
Rainfall	-

*R. Kalichel* 23/3/2020  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.



**TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.**



**STACK MONITORING SURVEY – Report of Analysis**

Report No. 67/ AAQS/2019-2020

Date.23.03.2020

1. Name of the Industry : M/s. United Carbon Solutions (P) Ltd.,  
2. Address of the Industry : SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.  
3. Date of Survey : 17.03.2020 at 06.30 PM to 02.10 AM (18.03.2020)  
4. Type of Industry : Activated Carbon Processing

**Stack Monitoring Survey Results**

Sl. No	Stack attached to	Stack .Temp °C	Velocity in (m/ sec)	Discharge rate In Nm <sup>3</sup> /Hour	Pollutants (mg / Nm <sup>3</sup> )		
					PM	SO <sub>2</sub>	NO <sub>x</sub>
1.	Boiler - V	143	4.0708	2996.352	105.394	10.67	22.96
2.	Boiler 1 & 2	133	4.0760	12256.16	106.993	12.80	23.37
3.	Boiler – VI	81	3.333	11493.662	100.301	8.53	21.63
4.	Kiln-I	240	3.6901	2977.62	106.106	10.67	19.92
5.	Kiln-II	237	3.5956	2918.293	103.00	10.67	18.89
6.	Kiln-III	252	2.9797	2349.514	104.595	8.53	20.60
7.	Kiln-IV	245	3.7081	2973.149	82.582	6.40	18.67
8.	Kiln-V	251	3.644	2878.869	108.708	12.80	24.72
9.	Kiln-VI	252	3.6481	2886.149	109.80	10.67	21.44
10.	Kiln-VII	257	3.6654	2872.430	101.901	8.53	22.51

Test Performed	Test Method
PM <sub>10</sub>	IS 5182 : (Part 23) – 2006
SO <sub>2</sub>	Modified West – Graeke / IS 5182 : (Part 2) – 2001 RA: 2012
NO <sub>x</sub>	Jacobs – Hochheiser / IS 5182 : (Part 6) – 2006 RA:2012

*R. Kalaiichel*  
23/3/2020  
Dy, Chief Scientific Officer  
DEL, TNPCB, Tiruppur.



**TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.**



**STACK DETAILS**

Report No. 67 /AAQ/SM/2019-2020

1. Name and Address of the Industry : M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.

2. Date of Survey : 17.03.2020 at 06.30 PM to 02.10 AM (18.03.2020)

Sl. No	Particulars	I	II	III	IV
1.	Stack Attached to	Civil Chimney	Boiler V	Boiler VI	Kiln 1
2.	Details of process stack	Steam Generation	Steam Generation	Steam Generation	Steam Generation
3.	Height from G Level in (m)	30	30	30	80
4.	Diameter in (m)	1.2	1.2	0.6	0.7
5.	Port hole height from Ground Level or bends or ducts in (m)	16	16	10	7
6.	Fuel Used (with % Sulphur content)	Waste heat from Kiln 1 to 4	Waste Heat	Waste Heat	Waste Heat
7.	Fuel Consumption rate per day (mention units)	-	-	-	-
8.	Boiler type and capacity	4T/hr	4T/hr	4T/hr	Production Output 7 T / day
9.	APC Measures provided	Wet Scrubber	Wet Scrubber	Wet Scrubber	-
10.	APC functional status	Functioning	Functioning	Functioning	Functioning
11.	Composition of flue gas	CO %	-	-	-
		CO <sub>2</sub> %	-	-	-
		O <sub>2</sub> %	-	-	-
12.	Moisture content in %	-	-	-	-
13.	Ambient temp in °K	300	300	301	299
14.	Temp of flue gas in °K	406	354	416	513
15.	Velocity of flue gas in m/sec	4.0760	3.333	4.0708	3.6901
16.	Volume of flue gas sampled in m <sup>3</sup>	1.001	0.996	1.001	0.999
17.	Gaseous Discharge rate per day in Nm <sup>3</sup> /Hour	12256.16	11493.662	2996.352	2977.62
18.	Combustion efficiently %	-	-	-	-

  
 Dy. Chief Scientific Officer,  
 District Environmental Laboratory  
 Tamil Nadu Pollution Control Board  
 TIRUPPUR.



TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.



Report No. 67 /AAQ/SM/2019-2020

1.Name and Address of the Industry : M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.

2. Date of Survey : 17.03.2020 at 06.30 PM to 02.10 AM (18.03.2020)

Sl. No	Particulars	V	VI	VII	VIII	IX	X
1.	Stack Attached to	Kiln 2	Kiln 3	Kiln 4	Kiln 5	Kiln 6	Kiln 7
2.	Details of process stack	Steam Generation					
3.	Height from G Level in (m)	80	80	80	80	80	80
4.	Diameter in (m)	0.7	0.7	0.7	0.7	0.7	0.7
5.	Port hole height from Ground Level or bends or ducts in (m)	7	7	7	7	7	7
6.	Fuel Used (with % Sulphur content)	Waste Heat					
7.	Fuel Consumption rate per day (mention units)	-	-	-	-	-	-
8.	Boiler type and capacity	Production Output 7 T / day					
9.	APC Measures provided	-	-	-	-	-	-
10.	APC functional status	Functioning	Functioning	Functioning	Functioning	Functioning	Functioning
11.	Composition of flue gas	-	-	-	-	-	-
		-	-	-	-	-	-
		-	-	-	-	-	-
12.	Moisture content in %	-	-	-	-	-	-
13.	Ambient temp in °K	299	299	300	299	300	300
14.	Temp of flue gas in °K	510	525	354	524	525	530
15.	Velocity of flue gas in m/sec	3.5956	2.9797	3.333	3.644	3.6481	3.6654
16.	Volume of flue gas sampled in m <sup>3</sup>	0.999	1.001	0.996	0.999	0.999	0.999
17.	Gaseous Discharge rate per day in Nm <sup>3</sup> /Hour	2918.293	2349.514	11493.662	2878.864	2886.149	2872.430
18.	Combustion efficiently %	-	-	-	-	-	-

*R. Kalichechi*  
23/3/2020  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.



**TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.**



**STACK MONITORING SURVEY – Additional details**

Report No. 67 / SM /2019-2020

Date.23.03.2020

1. Name of the Industry : M/s. United Carbon Solutions (P) Ltd.,
2. Address of the Industry : SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.
3. Date of Survey : 17.03.2020 at 06.30 PM to 02.10 AM (18.03.2020)
4. Type of Industry : Activated Carbon Processing

**Stack Monitoring Additional details**

Sl.No.	Details of stack mentioned in the Air Consent order	Details of stack available and in working condition	Details of stack for which stack Emission sampling have been done	Justification for the left out of stack Emission Sampling
1.	Boiler 1 & 3	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
2.	Boiler – IV	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
3.	Kiln-I	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
4.	Kiln-II	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
5.	Kiln-III	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
6.	Kiln-IV	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
7.	Kiln-V	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
8.	Kiln-VI	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
9.	Kiln-VII	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
10.	Boiler - V	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
11.	Screening & Packing bag Filter 1 to 6	Working Condition	Sampling Not Done	Closed to Wet Scrubber

*R. Kalaiichel*  
23/3/2020

**Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.**



**TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.**



**AMBIENT/SOURCE NOISE LEVEL SURVEY - Report of Analysis**

Report No: 67 / NLS/20189-2020

Date:23.03.2020

1.	Name of the Industry	M/s. United Carbon Solutions (P) Ltd.,		
2.	Address of the Industry	SF.No: 1147/1A, A.P.Pudur (PO), Vattamalai, Kangeyam (TK), Tiruppur District – 638 701.		
3.	Date of Survey	17.03.2020 at 06.30 PM to 02.10 AM (18.03.2020)		
Category	Red / Large	Land use Classification	Unclassified	
Type of Survey	Ambient	Time of Survey	Night	
Meteorological conditions	Cloudy			

**Logging Parameters**

Instrument Used	Larson & Davis	Serial No	824 A 2007	
Logging Interval	10 Minutes each point	Measuring Range	40-120	
Weighting	“ A ”	Peak Weighting	“ C ”	Time Weighting
Sound Incidence	RANDOM		Time in hrs	21.00 to 23.00 hrs

**Report of Noise Level Monitoring**

Sl No	Location Recorded Near	Duration (min)	Distance (M)	Direction	Sound Level – dB (A)					
					L <sub>eq</sub>	L <sub>90</sub>	L <sub>50</sub>	L <sub>10</sub>	Min	Max
1.	Entrance	10	117	NE	38.4	37.5	38.2	39.2	36.3	42.3
2.	Administration Block	10	114	NW	40.9	40.5	40.8	41.0	39.2	41.6
3.	Canteen Area	10	120	SE	49.5	47.0	48.0	52.3	46.4	59.2
4.	Dormitory room	10	152	SW	45.3	45.2	45.3	45.4	44.6	46.4
5.	Process Area	10	120	N	48.7	48.5	48.6	49.0	47.9	50.2

**Note:** L90 Value refers to background noise: L50 Value refers to mean noise.

L10 value refers to nuisance or annoyance level : Leq value is the average energy for the measured period.

*P. Kalai chel* 23/3/2020

**Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.**



**TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.**



**GENERAL PARTICULARS**

Report No. 67 /AAQ/SM/2019-2020

1. Name and Address of the Industry : M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.
2. Date of Survey : 17.03.2020 at 06.30 PM to 02.10 AM (18.03.2020)

Sl.No	Particulars	
1.	Process Description	Attached
2.	Emission Sources	Rotary Kiln , WHRB, 4 T Boilers, Packing Section
3.	Fugitive Emission Sources	Raw Materials Handling & Packing Operation
4.	Raw Material Consumptions on the day of survey	Coconut Shell Charcoal 87.6 M T / day
5.	Production Capacity as per Air Consent order No. & Date	Activated carbon in various grades 1640 T / M Consent Order No.1908121674588, dt.10.06.2019
6.	Production on the day of Survey	Activated carbon 34.1MT
7.	Percent production with respect to Air Consent Order	40 %
8.	Air Consent Order No. Validity upto 31 <sup>st</sup> March 20.....	Consent Order No.1908121674588, dt.10.06.2019 Valid up to 31.03.2020
9.	Details of APC measures	1. Settling Chamber attached with rotary kiln 1 to 7 2. Wet Scrubber attached with waste heat recovery boiler 1 to 6 3. Bag Filter and Scrubber attached activated charcoal crushing and Screening 1 to 6
10.	Functional Status of APC measures	Functional
11.	Compliance with Consent Conditions	Complied
12.	Field Observations	--

*R. Kalai chelvi*  
23/3/2020  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.

19/3/2020



**UCS**  
UNITED CARBON SOLUTIONS  
PRIVATE LIMITED

1. A brief description on the activity of your unit along with the process flow chart.  
No revision already submitted.
2. Details of Raw material with type and quantity used on the day of survey.  
Coconut Shell Charcoal – 87.6 MT /day.
3. Details of production (final product) on the day of AAQ survey & % production with respect to the TNPC board consent order.  
34.1 MT
4. Details on the different types of fuels used (with quantity) – Diesel, fire wood etc.  
Nil.
5. Details on the major emission sources available & its working status on the day of survey.  
Waste heat recovery ✓  
Boiler stack – (1 & 2 Attached with one Civil Chimney) ~~3, 4~~ 5 ✓ 6 ✓  
Rotary kiln stack -1, 2, 3, 4, 5, 6, 7.  
Screening and Packing bag filter- 1, 2, 3, 4, 5, 6.
7. Copy of the unit's latest TNPCB consent – renewal order.  
Attached.
8. Details on the fugitive emission sources of the unit –if any.  
Nil
9. Details on the location of nearby industries.  
Nil
10. Copy of the unit's latest site plan with dimensions (to scale).  
Submitted Already, No revision
11. Copy of unit's latest topo sketch drawing.  
No revision
12. Details on the major emission sources (with dimension) and APC measures attached.

	Particulars	Kiln Chimney	Boiler Chimney
A	Total stack height from ground level (in mts)	18 Mtrs	30 Mtrs
B	Port hole height from ground level ( in mts)	7 Mtrs	19 Mtrs
C	Inner diameter of the stack at the port hole area	0.7 Mtrs	0.6 Mtrs
D	Details on the provision of ladder/platform etc	Ladder	Ladder
E	Details on the APC measures provided to the stack	Settling Chamber	Wet Scrubber
F	Whether the APC measure provided was functioning	Yes	Yes

For UNITED CARBON SOLUTIONS PVT. LTD.,  
*A.C. Jay*  
DIRECTOR



Ver : 0.0 / Dt : 04-08-2015

S.F.No.1147/1A, A.P. Pudur Post,  
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CIN : U24290TZ2010PTC016458



TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.



**INFERENCE REPORT ON A.A.Q.S./ S.M.**

1. Name of industry : M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.
2. Pollution Category : Red / Large
3. Date of A.A.Q. Survey : 17.03.2020 at 06.30 PM to 02.10 AM (18.03.2020)
4. Predominant Wind Direction : SE – NW
5. Weather condition : Cloudy

**STATUS OF POLLUTANTS LEVEL**

AMBIENT AIR QUALITY :-

1. Total No. of A.A.Q. stations monitored : 11

No. of A.A.Q. stations in which Pollutants  
Level exceeded the Boards standards : NIL

Maximum and Minimum values of Pollutants Level observed:

Sl. No	POLLUTANT	Values in microgram/m <sup>3</sup>		BOARD's STANDARD (As per consent order)
		Maximum	Minimum	
1.	PM <sub>10</sub>	64.583	53.182	100
2.	PM <sub>2.5</sub>	37.5	32.334	60
	<u>GASEOUS POLLUTANTS:-</u>			
	(i) SO <sub>2</sub>	13.01	9.27	80
	(ii) NO <sub>2</sub>	24.64	17.66	80

**II. STACK MONITORING:-**

1. Total No. of Stacks Monitored : 10
2. No. of Stacks in which Pollutants level  
Exceeded the Boards standards : Nil

*R. Kalaiichel* 23/3/2020  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.



TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.



BILL

Report No . 67 /AAQ/SM/2019 – 2020

Bill No.	67/ 2019-2020
Date	23.03.2020

To

M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.

Ref: 1. B.PMs.No.6 Dt.31.03.2009.

2. This office Lr.No. DEL-TPR/AAQS/ F. No.U-3 /2019-20/dt:

3. Your Lr.No: Nil Dt

4. Cash Receipt No: 90367 Dt:21.02.2020 Rs: 44,600/-

\*\*\*\*\*

Sl. No.	Description	No. of Stations	Rate ( Rs.)	Amount (Rs).
1.	Ambient Air Quality Survey – PM <sub>10</sub> (Sampling) Pm-2.5	8 5	2,000.00 2,000.00	16,000.00 10,000.00
2.	Stack Monitoring – PM, SO <sub>2</sub> , NO <sub>2</sub> PM only	10	7,500.00	75,000.00
3.	Analysis Charges – PM <sub>10</sub> & Particulate Matter 2.5PM	18 5	600.00 1,000.00	10,800.00 5,000.00
4.	Analysis Charges – Sulphur dioxide	18	600.00	10,800.00
5.	Analysis Charges – NO <sub>2</sub> & Nitrogen Oxides	18	600.00	10,800.00
6.	Ambient Noise Level testing charges (First 5 Points)	I <sup>st</sup> 5 points	4,000.00	4,000.00
7.	Ambient Noise Level testing		300.00	-
Total				1,42,400.00
Less:Advance –Vide CR.No.90367, dt.21.01.2020				(-) 44,600.00
				97,800.00
Balance to be paid				97,800.00

*P. Kalai chelvi*  
23/3/2020

Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.



**TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.**



**AMBIENT AIR QUALITY SURVEY – Report of Analysis**

Report No. 62 / AAQS/2021-2022

Date.02.02.2022

1. Name of the Industry : M/s. United Carbon Solutions (P) Ltd.,
2. Address of the Industry : SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.
3. Date of Survey : 21.12.2021
4. Duration of Survey : 8 Hours
5. Category : Red / Large
6. Land use classification : -

**Meteorological Conditions**

Ambient Temperature (°C)	Min 27	Max 33	Relative Humidity (%)	Min 35	Max 58
Weather Condition	Clear Sky		Rain Fall (mm)	Nil	
Predominant Wind Direction	NE – SW		Mean Wind Speed (km/hr)	-	

**Ambient Air Quality Survey Results**

Sl. No.	Location	Direction *	Distance (m) *	Height Form GL (m)	Pollutants Concentration (microgram / m <sup>3</sup> )			
					PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
1.	Main Entrance	NE	117	2	-	55	9	16
2.	Canteen	SE	120	2	-	46	7	15
3.	Eswaramoorthy's Residence	SW	129.5	2	35	58	14	18
4.	Dormitory rooms	SW	152	2	-	57	11	19
5.	UCS Administration Block	NW	114	2	-	52	14	21

note: \* With respect to major emission sources.

*R. Kalai chelvi*  
02/2/22  
**Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.**

Test Performed.	Test Method
PM10	IS 5182 : (Part 23) – 2006
SO2	Modified West – Gaeke / IS 5182 : (Part 2) – 2001 RA: 2012
NO2	Jacobs – Hochheiser / IS 5182 : (Part 6) – 2006 RA:2012

*R. Kalai chelvi*  
02/2/22  
**Dy, Chief Scientific Officer  
DEL, TNPCB, Tiruppur**

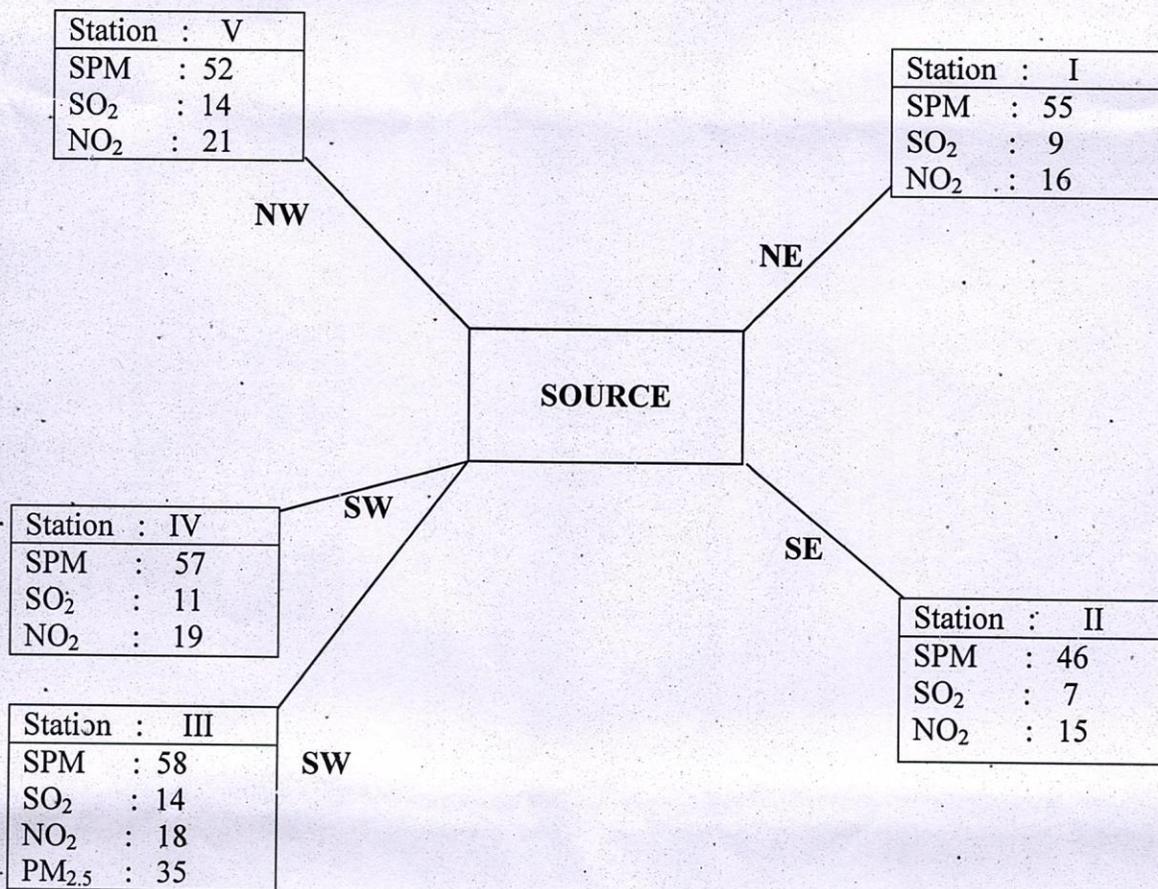


**AMBIENT AIR QUALITY SURVEY**  
Schematic Diagram Showing Location of Sampling

Report No. 62 /AAQ/SM/2021-2022

1. Name and Address of the Industry : M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.

2. Date of Survey : 21.12.2021



\* Indicates Less than minimum detectable limit.

Note: All the values are expressed in and restricted to sampling period of 8 hours.

Meteorological Conditions:	
Predominant Wind Direction	NE – SW
Wind Speed	--
Weather Condition	Clear Sky
Rainfall	-

*R. Kalachel*  
02/2/22  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.



**TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.**



**STACK MONITORING SURVEY – Report of Analysis**

Report No. 62 / AAQS/2021-2022

Date.02.02.2022

1. Name of the Industry : M/s. United Carbon Solutions (P) Ltd.,  
 2. Address of the Industry : SF.No: 1147/1A, A.P.Pudur (PO),  
 Vattamalai, Kangeyam (TK),  
 Tiruppur District – 638 701.  
 3. Date of Survey : 21.12.2021  
 4. Type of Industry : Activated Carbon Processing

**Stack Monitoring Survey Results**

Sl. No	Stack attached to	Stack Temp °C	Velocity in (m/ sec)	Discharge rate In Nm <sup>3</sup> /Hour	Pollutants (mg / Nm <sup>3</sup> )		
					PM	SO <sub>2</sub>	NO <sub>x</sub>
1.	Civil Chimney	127	4.6613	14227	61	13	17
2.	Boiler V	110	3.779	12044.373	67	16	19
3.	Boiler IV	99	3.539	2913.113	61	15	18
4.	Kiln-I	301	4.246	3077.385	64	15	20
5.	Kiln-II	287	4.110	3069	67	19	18
6.	Kiln-III	217	3.767	3215	70	13	18
7.	Kiln-IV	253	3.822	3048.466	55	14	20
8.	Kiln-V	140	3.7355	3782.275	51	16	18
9.	Kiln-VI	248	3.455	2791.147	58	17	19
10.	Kiln-VII	199	3.289	2933.039	80	19	17

Test Performed	Test Method
PM <sub>10</sub>	IS 5182 : (Part 23) – 2006
SO <sub>2</sub>	Modified West – Gaeke / IS 5182 : (Part 2) – 2001 RA: 2012
NO <sub>x</sub>	Jacobs – Hochheiser / IS 5182 : (Part 6) – 2006 RA:2012

*R. Kalichelvi*  
02/2/22  
Dy, Chief Scientific Officer  
DEL, TNPCB, Tiruppur.



**TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.**



**STACK DETAILS**

Report No. 62 /AAQ/SM/2021-2022

1. Name and Address of the Industry : M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.

2. Date of Survey : 21.12.2021

Sl. No	Particulars	I	II	III	IV	V
1.	Stack Attached to	Civil Chimney	Boiler V	Boiler IV	Kiln -I	Kiln -II
2.	Details of process stack	Steam Generation	Steam Generation	Steam Generation	Steam Generation	Steam Generation
3.	Height from G Level in (m)	30	30	30	18	18
4.	Diameter in (m)	1.2	1.2	0.6	0.7	0.7
5.	Port hole height from Ground Level or bends or ducts in (m)	19	19	10	7	7
6.	Fuel Used (with % Sulphur content)	Waste heat	Waste Heat	Waste Heat	Waste Heat	Waste Heat
7.	Fuel Consumption rate per day (mention units)	-	-	-	-	-
8.	Boiler type and capacity	4T/hr	4T/hr	4T/hr	7 T / day	7 T / day
9.	APC Measures provided	Wet Scrubber	Wet Scrubber	Wet Scrubber	-	-
10.	APC functional status	Functioning	Functioning	Functioning	Functioning	Functioning
11.	Composition of flue gas	CO %	-	-	-	-
		CO <sub>2</sub> %	-	-	-	-
		O <sub>2</sub> %	-	-	-	-
12.	Moisture content in %	-	-	-	-	-
13.	Ambient temp in °K	300	300	301	301	302
14.	Temp of flue gas in °K	400	383	372	575	560
15.	Velocity of flue gas in m/sec	4.6613	3.779	3.539	4.246	4.110
16.	Volume of flue gas sampled in m <sup>3</sup>	1.005	1.001	0.996	0.999	0.999
17.	Gaseous Discharge rate per day in Nm <sup>3</sup> /Hour	14227	12044.373	2913.113	3077.385	3069
18.	Combustion efficiently %	-	-	-	-	-

*R. Kalaichel* 02/12/22

**Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.**



**TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.**



Report No. 62 /AAQ/SM/2021-2022

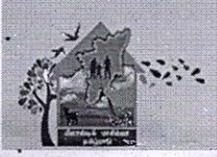
1.Name and Address of the Industry : M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.

2. Date of Survey : 21.12.2021

Sl. No	Particulars	VI	VII	VIII	IX	X
1.	Stack Attached to	Kiln -III	Kiln- IV	Kiln- V	Kiln -VI	Kiln- VII
2.	Details of process stack	Steam Generation				
3.	Height from G Level in (m)	18	18	18	18	18
4.	Diameter in (m)	0.7	0.7	0.7	0.7	0.7
5.	Port hole height from Ground Level or bends or ducts in (m)	7	7	7	7	7
6.	Fuel Used (with % Sulphur content)	Waste Heat				
7.	Fuel Consumption rate per day (mention units)	-	-	-	-	-
8.	Boiler type and capacity	7 T / day				
9.	APC Measures provided	-	-	-	-	-
10.	APC functional status	Functioning	Functioning	Functioning	Functioning	Functioning
11.	Composition of flue gas	-	-	-	-	-
		-	-	-	-	-
		-	-	-	-	-
12.	Moisture content in %	-	-	-	-	-
13.	Ambient temp in °K	302	303	302	304	304
14.	Temp of flue gas in °K	490	526	413	521	472
15.	Velocity of flue gas in m/sec	3.767	3.822	3.7355	3.455	3.289
16.	Volume of flue gas sampled in m <sup>3</sup>	1.000	0.999	0.996	0.999	0.999
17.	Gaseous Discharge rate per day in Nm <sup>3</sup> /Hour	3215	3048.466	3782.275	2791.147	2933.039
18.	Combustion efficiently %	-	-	-	-	-

*R. Kalai cheli*  
02/2/22

**Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.**



TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.



**STACK MONITORING SURVEY – Additional details**

Report No. 62 / SM /2021-2022

Date.02.02.2022

1. Name of the Industry : M/s. United Carbon Solutions (P) Ltd.,  
2. Address of the Industry : SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.  
3. Date of Survey : 21.12.2021  
4. Type of Industry : Activated Carbon Processing

**Stack Monitoring Additional details**

Sl.No.	Details of stack mentioned in the Air Consent order	Details of stack available and in working condition	Details of stack for which stack Emission sampling have been done	Justification for the left out of stack Emission Sampling
1.	Civil Chimney	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
2.	Boiler – V	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
3.	Boiler - IV	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
4.	Kiln-I	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
5.	Kiln-II	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
6.	Kiln-III	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
7.	Kiln-IV	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
8.	Kiln-V	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
9.	Kiln-VI	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
10.	Kiln-VII	Working Condition	Sampling Done SPM, NO <sub>2</sub> , SO <sub>2</sub>	-
11.	Screening & Packing bag Filter 1 to 6	Working Condition	Sampling Not Done	Closed to Wet Scrubber

*R. Kalachel* 02/2/22

Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.



**TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.**



**AMBIENT/SOURCE NOISE LEVEL SURVEY - Report of Analysis**

Report No: 62 / NLS/2021-2022

Date: 02.02.2022

1.	Name of the Industry	M/s. United Carbon Solutions (P) Ltd.,		
2.	Address of the Industry	SF.No: 1147/1A, A.P.Pudur (PO), Vattamalai, Kangeyam (TK), Tiruppur District – 638 701.		
3.	Date of Survey	21.12.2021		
Category		Red / Large	Land use Classification	-
Type of Survey		Ambient	Time of Survey	Day
Meteorological conditions		Clear sky		

**Logging Parameters**

Instrument Used	Larson & Davis	Serial No	824 A 2007
Logging Interval	10 Minutes each point	Measuring Range	40-120
Weighting	“ A ”	Peak Weighting	“ C ”
		Time Weighting	FAST
Sound Incidence	RANDOM	Time in hrs	10.00 to 12.00 hrs

**Report of Noise Level Monitoring**

Sl No	Location Recorded Near	Duration (min)	Distance (M)	Direction	Sound Level – dB (A)					
					L <sub>eq</sub>	L <sub>90</sub>	L <sub>50</sub>	L <sub>10</sub>	Min	Max
1.	Main Entrance	10	117	NE	58.3	60.3	59.2	51.3	49.2	61.2
2.	Canteen	10	120	SE	54.7	55.2	54.6	54.3	53.7	56.9
3.	Eswaramoorthy's Residence	10	129.5	SW	56.7	59.7	55.3	54.7	53.8	68.6
4.	Dormitory room	10	152	SW	54.3	54.8	54.1	53.9	53.3	55.2
5.	UCS Administration Block	10	114	NW	58.8	59.9	58.4	57.8	57.5	61.1

**Note:** L<sub>90</sub> Value refers to background noise; L<sub>50</sub> Value refers to mean noise.

L<sub>10</sub> value refers to nuisance or annoyance level : L<sub>eq</sub> value is the average energy for the measured period.

*R. Kalichelvi*  
02/2/22

**Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.**



**TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.**



**GENERAL PARTICULARS**

Report No. 62 /AAQ/SM/2021-2022

1. Name and Address of the Industry : M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.
2. Date of Survey : 21.12.2021

Sl.No	Particulars	
1.	Process Description	Attached
2.	Emission Sources	Rotary Kiln , WHRB, 4 T Boilers & Packing Section
3.	Fugitive Emission Sources	Raw Materials Handling & Packing Operation
4.	Raw Material Consumptions on the day of survey	Coconut Shell Charcoal 102.5 M T / day
5.	Production Capacity as per Air Consent order No. & Date	Activated carbon in various grades 1640 T / M Consent Order No.2105237135584, dt.12.04.2021
6.	Production on the day of Survey	Activated carbon 41.9 MT
7.	Percent production with respect to Air Consent Order	-
8.	Air Consent Order No. Validity upto 31 <sup>st</sup> March 20.....	Consent Order No.2105237135584, dt.12.04.2021 valid up to 31.03.2022
9.	Details of APC measures	1. Settling Chamber attached with rotary kiln 1 to 7 2. Wet Scrubber attached with waste heat recovery boiler 1 to 6 3. Bag Filter and Scrubber attached activated charcoal crushing and Screening 1 to 6
10.	Functional Status of APC measures	Functioning
11.	Compliance with Consent Conditions	Complied
12.	Field Observations	--

*R. Kalichel*  
02/2/22

**Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.**



TAMILNADU POLLUTION CONTROL BOARD  
DISTRICT ENVIRONMENTAL LABORATORY  
TIRUPPUR – 641 601.



**INFERENCE REPORT ON A.A.Q.S./S.M.**

1. Name of industry : M/s. United Carbon Solutions (P) Ltd.,  
SF.No: 1147/1A, A.P.Pudur (PO),  
Vattamalai, Kangeyam (TK),  
Tiruppur District – 638 701.
2. Pollution Category : Red / Large
3. Date of A.A.Q. Survey : 21.12.2021
4. Predominant Wind Direction : NE – SW
5. Weather condition : Partially Cloudy

**STATUS OF POLLUTANTS LEVEL**

AMBIENT AIR QUALITY :-

1. Total No. of A.A.Q. stations monitored : 5

No. of A.A.Q. stations in which Pollutants  
Level exceeded the Boards standards : NIL

Minimum and Maximum values of Pollutants Level observed:

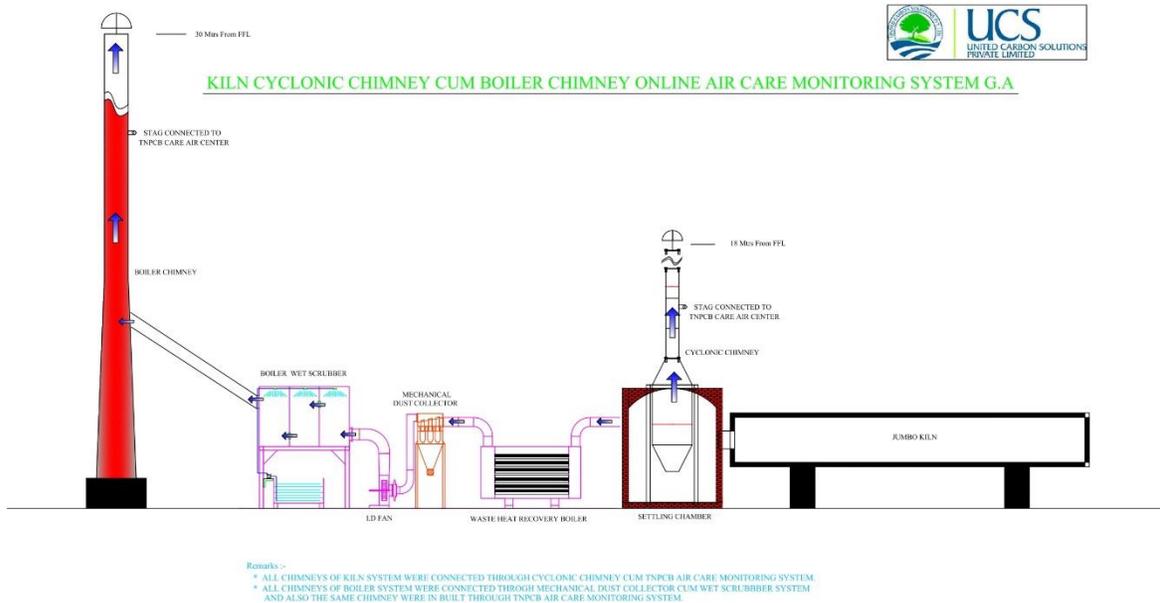
Sl. No	POLLUTANT	Values in microgram/m <sup>3</sup>		BOARD'S STANDARD (As per consent order)
		Minimum	Maximum	
1.	PM <sub>10</sub>	46	58	100
2.	PM <sub>2.5</sub>	35	-	60
	<u>GASEOUS POLLUTANTS:-</u>			
	(i) SO <sub>2</sub>	7	14	80
	(ii) NO <sub>2</sub>	15	21	80

**II. STACK MONITORING:-**

1. Total No. of Stacks Monitored : 10
2. No. of Stacks in which Pollutants level  
Exceeded the Boards standards : Nil

*R. Kalichelvi* 02/12/22  
Dy. Chief Scientific Officer,  
District Environmental Laboratory  
Tamil Nadu Pollution Control Board  
TIRUPPUR.

### Air Pollution Control Measures:



### CRUSHING, SCREENING& PACKING SECTION – DUST COLLECTOR LINKED WITH WET SCRUBBER

The design of dust collector is connected with wet scrubber is provided for air pollution control system especially for Crushing, screening and packing section, the dust collector connected with wet Scrubber is fixed for collection of ultra-fine dusts escaped from the said process, the outlet system of Activated Charcoal Crushing, screening and packing is linked with dust collector which is functioning to collect the fine particles after connected with civil constructed wet scrubber by capturing the escaped ultra-fine particles via water spraying through zig zag nozzle arrangement. Finally, the ultra-fine carbon particles collected via filter press and the water will circulated to the same by recycling process.



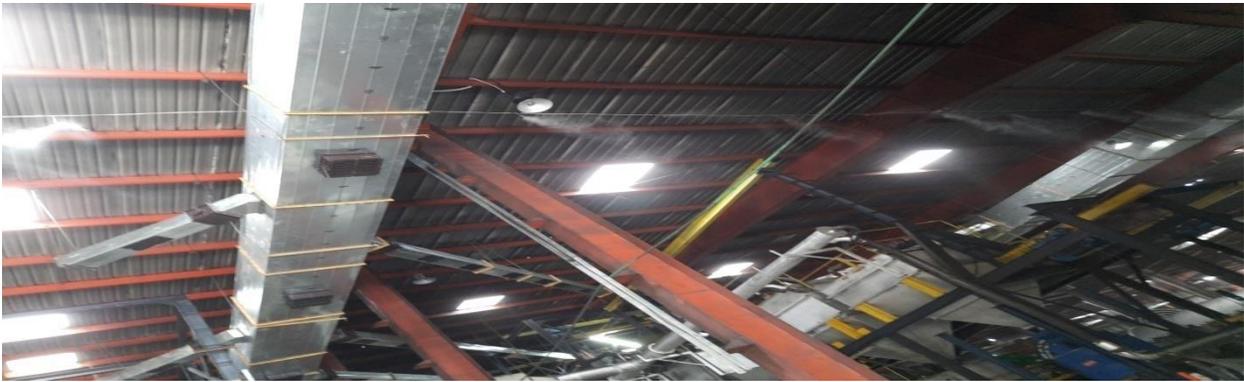
## **FACTORY – ULTRA FINE DUST EMISSION CONTROL SYSTEM**

Inside the factory hall, we have installed duct systems and the same has been connected to six (6) Nos of 20HP axial draft fans to suck the dust emission, which is inbuilt to the ducts, to cover emission from Kiln, crushing, screening and packing areas in the factory. The Axial draft fan system is passed through the cyclone system which is connected in serial connection with Wet Scrubber, cyclonic Scrubber and stack. The dust is collected in the bottom of cyclone. The outflow of ultra-fine air is connected to the WET SCRUBBER system and it is wetted by spray nozzle system. The above water is re-circulated using 1% of detergent solution. This will ensure pure air let out through stack. By the above process, we shall ensure NIL emission of dust and fine particles in the open air. Hence all the fine dusts has been fully collected by cyclone connected serially with the wet scrubber systems. This will ensure NIL emission of dust from factory.

The fine dust emission control system







**ANNEXURE R-4**

**UNITED CARBON SOLUTIONS PRIVATE LIMITED**

**DOUBLE EFFECT FALLING FILM & SINGLE EFFECT FORCED CIRCULATION  
EVAPORATOR SYSTEM AND COMBINED ATFD (100LPH).**

