

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL SOUTHERN ZONE,
CHENNAI
APPLICATION NO.39 OF 2024(SZ)

Applicant(s) :: Sri. Jonatt Jose,
S/o Sri. Jose, Nalukettu, Koratty

Respondents :: The Secretary, MoEF and CC & others

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Dated this the 12th day of July, 2024.



Rema Smrithi VK
Standing counsel for KSPCB
R6



SIXTH RESPONDENT

SUCHITRA V.
Environmental Engineer

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL SOUTHERN ZONE
CHENNAI CIRCUIT BENCH
APPLICATION NO.39 OF 2024(SZ)

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Dated this the 12th day of July, 2024.



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SIXTH RESPONDENT

SUCHITRA V.
Environmental Engineer

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL SOUTHERN ZG.
CHENNAI CIRCUIT BENCH
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Dated this the 12th day of July, 2024.




SIXTH RESPONDENT

SUCHITRA V.
Environmental Engineer

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERNZONE, CHENNAI
Application no. OA 39 of 2024 (SZ)**

Applicant(s) : Sri. Jonatt Jose,
S/o Sri. Jose, Nalukettu, Koratty

Vs.

Respondents : The Secretary, MoEF and CC &
others

**REPORT FILED BY THE ENVIRONMENTAL ENGINEER,
KERALA STATE POLLUTION CONTROL BOARD,
DISTRICT OFFICE, THRISSUR, THE 6th RESPONDENT**

1. This respondent has submitted a report dated 12.03.2024 before the Hon'ble NGT, in which a detailed description on the working of the unit was reported.

2. After filing the report dated 12-03-2024, inspection was conducted in the unit by the Board officials on 19.04.2024. The unit was working during the inspection. The unit is consented for the production of Silicon carbide macro grains (40 TPD) using raw materials - Raw petroleum coke (20 TPD), Quartz (24 TPD) and microgrits of SiC and special ceramics

(24 TPD) Silicon carbide grains, brown fused alumina grains, white fused alumina grains, special ceramic grains (25 TPD) and silicon carbide crude (20 TPD). There are 9 furnaces in the unit set up in a separate building. It was reported that 3 furnaces can be fired at a time, and that firing is done electrically for which there are 3 numbers of transformers installed in the unit. For firing, the furnace is enclosed using temporary concrete structures which were reported to be called as "gates". Raw material is charged into the furnace enclosed with gates with a graphite rod at the core, and is electrically heated.

3. During inspection on 19.04.2024 it was observed that, openings were provided at one side of the building which was reported for ventilation purpose. However, during inspection no separate stacks were seen provided for the furnaces. It was also reported that one cycle of firing starting from charging to final collection of fused material from furnace, will take a total of six days. The fused material after cooling is then taken outside the furnace by removing the gates and crushed manually using pickaxes and other tools. The process of crushing of this fused material was seen done near the furnaces in the same industrial building housing the furnaces. For other activities like grinding, sieving they have provided dust collectors. The unit has reported that 19.05 tons of pet coke was used on 19.04.2024.

4. At the time of inspection, dust emission from the industrial unit was noticed. Also, there were few gunny bags with material spillage seen within the unit. The overall housekeeping of the unit was not proper and hence it needs much improvement. Also, several gunny bags with material were seen kept open in the backside of the unit, which should have been stored in an enclosed earmarked area with periodical removal.

The unit shall also ensure that wherever spillage happens, the spilled material is removed immediately since this is a potential source of air pollution in the surrounding area. It was observed that the unit has installed a Continuous Ambient Air Quality Monitoring Station (parameters: PM₁₀, PM_{2.5}, CO₂, SO₂, CO, Temperature and Relative humidity) near the main gate.

5. The petitioner's house was visited. Dust and odour nuisance was felt at the residence. It was also observed during this visit that, metal structures like gates and clamps in the petitioner's house and another house in the vicinity, was seen corroded.

6. The unit uses water for the cooling of furnaces and no effluent is generated as the water used for cooling is evaporated. Though there is a canteen for the workers and staff, food is reported to be brought from outside. Based on the inspection the unit was instructed vide letter dated 2.05.2024 to immediately install and commission the hood and stack in a movable arrangement for the furnaces, to improve the overall housekeeping, to provide enclosed ear marked area for the storage of gunny bags, to enable visual accessibility to CAAQMS display board for the public, to include the parameter of H₂S in the CAAQMS assessment and display the same, to connect CAAQMS with the CPCB server, install two more ambient air quality monitoring stations in 120° arrangement, to maintain a dust free environment and to tar or concrete all roads inside the plant premises. Copy of the letter no. PCB/RO-EKM/TSR/GEN/05 dated 02.05.2024 is marked and produced herewith as **Annexure- R6-(a)**.

7. The unit vide their reply letter dated 12.06.2024 has informed that they have taken all necessary actions to maintain the house keeping of the house, immediate actions will be taken for installing the hood and stack, enabled the visual access to the CAAQMS display board for the public and requested for a time period of six months for installing two more ambient air quality monitoring stations. The copy of the letter dated 12.06.2024 is marked and produced herewith as **Annexure- R6- (b)**.

8. Further to the inspection, ambient air monitoring was conducted at the unit and at the petitioner's residence on 24.04.2024. During the monitoring period 2 furnaces were in the reaction stage and two in the cooling stage. Some maintenance works were also being carried out at the furnace plant. The unit has reported that 12.7 tons of pet coke was used on that day. The results of the analysis are furnished in the table below

Sl. No	Parameters	At the unit ($\mu\text{g}/\text{m}^3$)	At petitioner's residence ($\mu\text{g}/\text{m}^3$)	Limit as per National Ambient Air Quality Standards ($\mu\text{g}/\text{m}^3$)
1	PM ₁₀	45	34	100
2	PM _{2.5}	42.9	31.1	60
3	SO ₂	2.6	1.9	80
4	NO ₂	10.6	21.3	80

All the parameters analysed are within the limit prescribed by the National Ambient Air Quality Standards.

9. Board had submitted a letter to Central Pollution Control Board (CPCB) to advice on whether pet coke can be allowed to be used as a raw material in the industry which is producing silicon carbide. CPCB has vide letter dated 22-3-2024 had informed about the Order dated 9-10-

2018 of the Hon'ble Supreme Court in WP(C) 13029 / 2025 permitting the use of pet coke in certain industries for use as a feedstock or in the manufacturing process and not as a fuel. Further vide letter dated 5-4-24, CPCB has informed that the State Board may examine whether pet coke is used as a feed stock / raw material and not as a fuel, and based on such assessment a decision may be taken to permit the use of pet coke in the light of orders of the Hon'ble Supreme Court. In this industry, pet coke is used as feedstock / raw material only and not as fuel. Copies of the letters from CPCB dated 22.03.2024 and 5.04.2024 are marked and produced herewith as **Annexure- R6- (c)** and **Annexure- R6- (d)**. Since it is electric furnace, there is no other fuel used. Hence it is humbly submitted that the use of pet coke in this industry can be permitted.

10. It is respectfully submitted that the unit has informed that the reason for not providing chimney and control measures is that furnace position is changed continuously; as the furnaces are made for each reaction and broken after the reaction period. Also it is submitted that the heat needed for driving the reaction is generated by the electrical resistance offered by a graphite core which is embedded in the raw material mix. A reducing atmosphere is created inside the furnace by covering the active materials with non – oxidising thick layer of unreacted mix, which diminishes the contact of reacting coke with air. A carbothermic reduction reaction in which the carbon is covalently bonded to silica to form silicon carbide crystals is initiated, thus avoiding the burning of coke.

11. It is humbly submitted that Board has renewed Consent to Operate of the unit on 9-1-2024 valid up to 30.06.2028, with condition to install stack with control measures. The unit had submitted a proposal dated

12.02.2024 for installing the stack and control measures within six months' time. This includes a hood for collecting fumes and gases, cyclone separator, scrubbing system and finally a chimney for venting the emission to outside. It is considered that by the installation of these control measures, air pollution could be controlled. The unit has been directed vide letter dated 9/7/2024 to complete the installation of control measures and chimney within the stipulated time period as stated in the unit's letter dated 12.02.2024. Copy of the letter no. PCB/TSR/IC/176/07 dated 09.07.2024 is marked and produced herewith as **Annexure- R6-(e)**.

Dated this the 12th day of July, 2024



SIXTH RESPONDENT



SUCHITRA V.
Environmental Engineer

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL SOUTHERN ZONE,
CHENNAI CIRCUIT BENCH
APPLICATION NO.39 OF 2024(SZ)

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S/o Sri. Jose, Nalukettu, Koratty

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Dated this the 12th day of July, 2024.



SIXTH RESPONDENT

SUCHITRA V.
Environmental Engineer



Carborandum
Annexure R6- (a)



☎: General: 0484-2207783-84 Chief Environmental Engineer: 0484-2207782
e-mail: pcbrokekm@gmail.com web: kspcb.kerala.gov.in
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്
KERALA STATE POLLUTION CONTROL BOARD
മേഖലാ ഓഫീസ്, ഗാന്ധിനഗർ, കടവന്ത്ര പി.ഒ., എറണാകുളം-682020
REGIONAL OFFICE, GANDHI NAGAR, KADAVANTHRA P.O., ERNAKULAM- 682020



PCB/RO-EKM/TSR/GEN/05

02.05.2024

03/05/2024

From
Chief Environmental Engineer

To
M/s Carborundum Universal Limited
Post Bag no 3
Koratty, Thrissur
680 308

Sub: - OA No 39 of 2024 (SZ) filed by Sri Jonatt Jose regarding Carborundum Universal Limited Koratty, Thrissur -Reg.

Ref: - Inspection conducted by the Board officials on 19.04.2024

Sir,

Your attention is invited to the above subject matter. With reference to the inspection conducted by the Board officials on 19.04.2024, you are directed to implement the following measures and report to this office.

1. Installation and commissioning of hood and stack in a movable arrangement for the furnace shall be completed urgently. The proposal shall be submitted to this office with copy to District Office, Thrissur.
2. Overall housekeeping of the unit shall be improved and maintained.
3. Gunny bags with material seen kept open in the backside of the unit during inspection shall be stored in an enclosed earmarked area with periodical removal.
4. Spilled dust material shall be removed immediately.
5. Display board of CAAQMS installed near the main gate of the unit shall be redirected so as to be visually accessible to the public.
6. The CAAQMS of the unit shall be connected to CPCB server, and additionally H₂S shall be included as a parameter for CAAQMS monitoring.

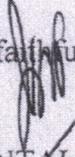
AEE

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23/05/2024

7. Two more ambient air quality monitoring stations shall be installed within the unit premises in a 120° arrangement.
8. The dust found to be spread inside and outside the plant shall be removed then and there using vacuum cleaner or similar methods. A dust free environment shall be maintained.
9. All roads inside the plant shall be tarred or concreted.

Yours faithfully,


CHIEF ENVIRONMENTAL ENGINEER

Copy to:

✓ Environmental Engineer, District Office- Thrissur

**Carborundum Universal Limited**

Post Bag No. 3, Koratty - 680 308

Thrissur Dist., Kerala, India.

Tel: +91 480 3023044, 2732061

Website: www.cumi.murugappa.com

12th June 2024

To,
Chief Environment Engineer
Kerala State Pollution Control Board
Regional Office, Gandhi Nagar
Kadavanthra P.O.
Ernakulam – 682 020



Dear Sir / Madam,

Sub: Inspection conducted by the Board Officials on 19.04.2024 in the backdrop of pending OA No.39 of 2024 (NGT, Chennai) – Directions issued by your good office vide your letter dated 02nd May 2024 – Regarding

Ref: Consent No. KSPCB/TS/ICO/10041755/2023, dated 09.01.2024 issued to M/s Carborundum Universal Limited, PB.NO.3, Nalukettu P.O, Koratty

We refer to the integrated consent order in the reference above duly issued by KSPCB and your letter dated 02nd May 2024 on the above subject.

We are given to understand that we are required to implement certain measures as directed by you vide your letter referred in the subject above and send the report in that regard to your good office.

we would like to update our plan of action and measures we have taken/want to take against each of such recommendations suggested by your good office in the table given below:

1.

Sl.No	Suggested Measure by CEE	Plan of action by the Company
1	Installation of Hood and Stack in a movable arrangement shall be completed urgently. The proposal shall be submitted to this office with a copy to the District Office, Thrissur	We have submitted the Consent to Establish Application No. 10061450 for installation of the proposed hood and stack arrangement in the furnace plant to KSPCB. We will undertake the work as soon as we get the approval.
2	Overall Housekeeping of the unit shall be improved and maintained	We have taken appropriate steps to improve overall housekeeping across the plant.
3	Gunny Bags with Material seen kept open at the backside of the unit during inspection shall be stored in an enclosed earmarked area with periodic removal	This is completed by shifting all materials to a closed and covered building.
4	Spilled Dust Materials shall be removed immediately	All spilled materials were collected and reprocessed.
5	Display Board of the CAAQMS installed near the main gate of the unit shall be redirected so as to be visually accessible to the public	The display unit has been redirected towards the road for visual access to the public.

.....2/-



Carborundum Universal Limited

Post Bag No. 3, Koratty - 680 308

Thrissur Dist., Kerala, India.

Tel: +91 480 3023044, 2732061

Website: www.cumi.murugappa.com

Sl.No	Suggested Measure	Plan of action by the Company
6	The CAAQMS of the unit shall be connected to the CPCB server and additionally, H2S shall be included as a parameter for CAAQMS monitoring	1. The Technical feasibility of connecting the installed CAAQMS instrument to CPCB server is being assessed through the equipment supplier. Necessary steps will be taken in this regard. 2.. Additional sensors for H2S measurement shall be procured along with the addition of two numbers air quality monitoring stations.
7	Two more ambient Air Quality Monitoring Stations shall be installed within the unit premises with a 120 Degree arrangement	This will be installed within six months.
8	The dust found to be spread inside and outside the plant shall be removed then and there using a vacuum cleaner or similar methods. A dust-free environment shall be maintained	Steps are taken to control dust to ensure dust-free environment by arresting dust generation at the source as well as by using necessary equipment to collect the dust.
9	All roads inside the plant shall be tarred or concreted	Appropriate steps have been initiated for repair of roads.

As evident from the above, we have always complied with the environmental parameters as stipulated in every CTO and are willing to extend further investments towards the improvement of the factory operations as suggested by your good office.

We shall share a further status report on the improvement activities highlighted above after a period of three months.

Kindly take note of the above and oblige.

Yours sincerely,
For Carborundum Universal Limited,


Authorised Signatory

Cc: The Environmental Engineer, KSPCB, Trissur





केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

Speed-Post / E-mail

No. IPC-II/Petcoke/CM-11/88/2022/ 11180

March 22, 2024

To,

The Member Secretary,
Kerala State Pollution Control Board,
Head Office, Pattom P.O.,
Thiruvananthapuram – 695 004

File No. KSPCB/486/2024-SEE-1 (Computer No. 6451)
Kerala

Sub.: In reference to KSPCB Letter dated-12.03.2024-reg.

Sir / Ma'am,

Please refer to KSPCB letter No. KSPCB/486/2024-SEE-I, dated-12.03.2024 (copy enclosed). In this regard, a note on the orders of Hon'ble Supreme Court and Hon'ble NGT (PB) and direction issued by CPCB is enclosed for kind information.

Further, it is to inform that an OA No. 39/2024 (SZ) regarding use of petcoke by M/s Carborundum Universal Limited, Kerala, is pending in Hon'ble NGT (SZ) Chennai.

Yours faithfully,

(Handwritten signature)
12/3/2024

(Nazimuddin)

Scientist-"F" & Head
IPC-II Division

Encl.: As above

Note

Reference: Kerala SPCB letter no.-KSPCB/486/2024-SEE-1, dt.-12.03.2024 regarding use of petcoke by M/s Carborundum Universal Ltd.

Hon'ble Supreme Court of India issued orders regarding ban / permit use of petcoke (in NCR states) as

- (i) Order dated 24.10.2017 (banning use of pet coke and FO),
- (ii) Order dated 17. 11.2017 (requesting other States/UT to consider taking similar measures),
- (iii) Order dated 13.12.2017 (permitting use of pet coke in cement kilns and lime kilns and allowing one-year time to power plants to switch over from FO to LDO)
- (iv) Order dated 05.02.2018 (permitting use pet coke in calcium carbide units)

In compliance to Hon'ble Supreme Court orders in WP (C) No. 13029/1985 in the matter of M.C. Mehta Vs Union of India, Central Pollution Control Board (CPCB) vide letter dated 15th November, 2017 issued direction to the Chief Secretaries of NCR States of Uttar Pradesh, Rajasthan and Haryana under section 5 of Environment (Protection) Act, 1986 regarding prohibition on use of petcoke and furnace oil by industry, operation and processes in the respective states with immediate effect.

Orders regarding permit use of imported petcoke only in certain processes / industrial sectors (in the country) as

- (i) Order dated 26.07.2018 (permitting use of imported Pet Coke only in Cement Kilns, Lime Kilns, Calcium Carbide and Gasification (in Oil Refinery) for use as a feedstock or in the manufacturing process and not as a fuel),
- (ii) Order dated 06.09.2018 (permitting import of Needle Pet Coke in Graphite Electrode Industry)
- (iii) Order dated 09.10.2018 (permitting use of imported Calcined Pet Coke in Aluminium Industry and use of imported anode grade Raw Pet Coke in CPC manufacturing units).

In compliance of Hon'ble NGT order dated 28.03.2019 and 04.07.2019 in O.A. Nos. 67/2019 and 138/2019, CPCB issued directions under Section 5 of the Environment (Protection) Act, 1986 to the Chief Secretaries/Administrators of all States Governments / Union Territory Administrations vide letter dated 23rd August 2019 as below:

State Government/Union Territory Administration shall formulate and enforce fuel policy regarding use of petcoke and FO in the State/UT in light of various orders passed by Supreme Court regarding use of petcoke and FO in Writ Petition (C) 13029/1985.

State Government/Union Territory Administration through respective SPCB/PCC shall take strict action against any industry if found violating the fuel policy on use of petcoke and FO that will be enforced as above, using the powers conferred under environmental laws.



1485
18/4/24

697
16/4/24

Annexure R6-(d)

390
18/4/24

केन्द्रीय प्रदूषण नियंत्रण बोर्ड

CENTRAL POLLUTION CONTROL BOARD

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

No. IPC-II/Petcoke/CM-11/88/2022/

Speed-Post / E-mail

148

April 05, 2024

To,

✓ The Member Secretary
Kerala State Pollution Control Board
Head office, Pattom P.O.,
Thiruvananthapuram - 695004
Kerala



Sub: In reference to Kerala SPCB letter dated 12.03.2024 seeking clarification regarding use of petcoke

Madam,

In continuation to this office letter even No. dated 22nd March, 2024, it is to further inform that the Kerala State Pollution Control may examine the matter in respect of - i) whether the unit uses only domestic pet coke and ii) whether pet coke is used as feed stock / raw material in the process and not as fuel, and based on such assessment take decisions to permit such use in light of Hon'ble Supreme Court orders / directions.

18/4

SKG
pl. director

Yours faithfully,

18/4/2024

(Nazimuddin)

Scientist F & Head
IPC-II Division

Copy to:

The Regional Director,
CPCB (RD-Bengaluru)
A-Block, Nisarga Bhavan,
1st and 2nd Floors, 7th D Cross,
Thimmaiah Road, Shivanagar,
Bengaluru - 560 079
Karnataka

Telephone No : 0487 - 2374939

E-mail: kspcbtsr@gmail.com



കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

മജെസ്റ്റിക് സ്ക്വയർ, മൂന്നാം നില, പാവട്ടാനി, ഒല്ലൂക്കര പി.ഒ., തൃശ്ശൂർ-680655

KERALA STATE POLLUTION CONTROL BOARD

Majestic Square, 3rd Floor, Paravattani, Ollukkara P.O., Thrissur-680655

"ഭരണഭാഷ - മാതൃഭാഷ"

PcB/TSR/IC/176/07

09.07.2024

From

Environmental Engineer

To

The Senior General Manager
Carborundum Universal Limited,
Post Bag No. 3, Koratty,
Thrissur - 680308

KERALA STATE POLLUTION CONTROL BOARD
DISTRICT OFFICE, THRISSUR

DESPATCHED ON 09/07/2024

Sub:- Action to be taken for compliance with the consent conditions

- Ref: - 1. Consent No. KSPCB/TS/ICO/10041755/2023 dated 9/1/2024 valid up to 30.06.2028
- 2. Letter no. 486/2024-SEE-1 KSPCB dated 12/2/2024 addressed to The Member Secretary, Head Office, Thiruvananthapuram
- 3. Your Letter No. nil dated 12.06.2024

Sir,

You are directed to complete the installation of control measures and chimney for the emission from the furnace by the end of August 2024 as stated in your letter referred (2) above. Also it is informed that Consent to Establish need not be awaited as the installation of control measures are already advocated in the Consent referred (1) above issued to the unit.

Yours Faithfully



Environmental Engineer