



TAMIL NADU POLLUTION CONTROL BOARD

ABSTRACT

TNPCB - PROTOCOL TO BE FOLLOWED BY THE EXISTING AND PROPOSED CHARCOAL MANUFACTURING INDUSTRIES INVIEW OF COMPLAINE OF HON'BLE NGT (SZ) ORDER DATED: 20.11.2020 IN O.A.NO. 17, 24 ETC., OF 2013.

B.P.No. 65

Dated: 22.08.2022

- Ref:
1. Hon'ble NGT (SZ) order dated: 20.11.2020 in O.A.No. 17, 24 etc., of 2013.
 2. Report on "Design and Guidelines prepared for Charcoal units" prepared by TNPCB Joint Committee vetted by Anna University on February 2022
 3. Circular Memo No.T3/ TNPCB/ F.08840/ Charcoal units/ 2022, dated: 07.03.2022
 4. Board Resolution No.287-2-4, dated: 01.08.2022

In accordance with Hon'ble Tribunal order dated 20.10.2022 (O.A. No. 17, 24 etc., of 2013), regarding the subject matter of Charcoal units located in Kangeyam Taluk, Tiruppur district, the Anna University has vetted the Report on "Design and Guidelines prepared for Charcoal units" prepared by TNPCB Joint Committee and furnished its recommendations.

All the Joint Chief Environmental Engineer (M) and the District Environmental Engineers were instructed vide circular memo dated 07.03.2022 to ensure that all charcoal manufacturing units operating in their jurisdiction are strictly adopting the 'design and guidelines prepared for Charcoal units' as per the Anna University vetted report.

Now, the consented units located in Tiruppur Area expressed willingness to provide pilot plant at their cost and has submitted their proposals for installation of the pilot plant of Modernised Elevated Charcoal Pit Pilot plant already vetted by the Anna University.

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Hence, to consider the protocol to be followed by the existing and proposed charcoal manufacturing industries, an Agenda was placed before Board and the Board **vide resolution No.287-2-4, dated 01.08.2022 has resolved to approve the protocol to be followed by the existing and proposed charcoal manufacturing industries** in view of compliance of Hon'ble NGT (SZ) order dated: 20.11.2020 in O.A.No. 17, 24 etc., of 2013 as follows:

I. For Existing (i.e., prior to the Hon'ble NGT (SZ) Order dated 20.11.2020 passed in O.A.No. 17, 24 etc., of 2013,) Charcoal industries:

All the existing consented units, i.e., prior to Hon'ble NGT (SZ) Order dated 20.11.2020 passed in O.A.No. 17, 24 etc., of 2013, shall install pilot plant to produce coconut shell charcoal from Coconut Shell as raw material subject to the following conditions:

1. The pilot plant shall be constructed and adopted as per the Anna University vetted report on 'Design and guidelines prepared for Charcoal units by TNPCB Joint committee'
2. The unit shall ensure that the charcoal production plant shall have an elevated Charcoal pit with its bottom 1000 mm above the ground level and the water quenching tank with its bottom 500 mm above ground level.
3. The charcoal pit/pits firing chamber, oil mist eliminator and venturi wet scrubber shall have pressure releasing valves.
4. Suitable non return valves to be provided in the system to prevent back fire.
5. Ash tray is to be provided beneath the chimney to collect ash generated.
6. An ID fan attached to chimney to be provided with damper valve.
7. Platform with port hold arrangement in the chimney to monitor process emission.
8. Refinements, if any, in the design may be considered based on the performance of the pilot plant. The project proponents may be permitted to develop and improvise their own design adopting all the modifications and general guidelines given by TNPCB and incorporating features of easy operation, higher safety, high efficiency, energy saving and environment protection.



TAMIL NADU POLLUTION CONTROL BOARD

9. The modifications under taken in the plant shall be inspected and certified as authorised process by safety consultant for the same and efficient working.
10. The unit shall adopt guidelines of TNPCB joint committee developed for siting criteria, APC measures & fugitive control measures, emission standards for charcoal unit, Hazardous and non-hazardous waste management, green belt development and other requirements as vetted by the Anna University.
11. The ash generated if any from the process shall be utilized for agriculture activities or any other beneficial purposes.
12. The entire process area flooring shall be made impervious.
13. Closed shed shall be provided for the process area.
14. Oily/tarry waste collected from the oil mist eliminator shall be reused for beneficial purposes such as tar production, oil for medicinal purpose etc. or disposed scientifically such as Co-processing, incineration through Common TSDF etc.
15. The pilot plant to be installed shall be operated only for the purpose of said consented unit to manufacture coconut shell charcoal.
16. The unit shall apply and obtain valid consent from Board before the commencement of operation of the plant.

II. For proposed Charcoal (i.e., after the Hon'ble NGT (SZ) Order dated 20.11.2020 passed in O.A.No. 17, 24 etc., of 2013) industries:

The proposed and non-consented charcoal industries i.e., after the Hon'ble NGT (SZ) Order dated 20.11.2020 passed in O.A.No. 17, 24 etc., of 2013 shall adopt **continuous process** by following the guidelines mentioned in the TNPCB Joint Committee Report vetted by Anna University as follows:

1) Siting Criteria

- a. No charcoal manufacturing unit shall be allowed within 1 km from approved habitation/approved lay outs.

- b. Charcoal unit shall be allowed 500 meters away from National/State Highways and distance shall be measured from the edge of the metalled road to the physical/administrative boundary of the charcoal manufacturing unit.
- c. No charcoal units shall be located in declared wild life Sanctuaries/ reserve forests and its buffer zones declared for the same.
- d. There should be at least 1 km distance between two charcoal manufacturing units from its physical/administrative boundaries.

2) Air Pollution Control Measures

- a. Flue gas arising from the continuous process shall have water scrubber arrangement attach to a stack of minimum height of 10 meters (from ground level) with necessary platform and port holes for periodic collection of stack emission samples.
- b. It is preferable to use the waste heat energy of the flue gas for drying of raw materials and for other purposes.
- c. The assembly of continuous process method shall be housed within a closed shed with suitable access.
- d. Loading of raw materials and unloading of finished products shall be mechanized.

3) Fugitive Emission Control

- a. Compound wall shall be provided on all sides of the unit to a minimum height of 4 meters from the ground level.
- b. Raw materials within the premises shall not be stacked beyond a height of 3 meters from the ground level.

4) Standards for charcoal units

- a. Emission standards — particulate matter not more than 150 mg/Nm³
- b. National Ambient Air Quality standards-CPCB Notification No.B-29016/20/90/PCH/dt.18.11.2009.
- c. The Noise Pollution (Regulation and Control) Rules 2000 as notified by MoEF, S.No.123 (E) dated:12.2.2000.

5) Green Belt Development

The industry should plant three rows of spreading crown & fast growing of evergreen thick foliage tall trees all along the boundary



TAMIL NADU POLLUTION CONTROL BOARD

6) Other requirements

- a) Stack/Ambient Air Quality/Ambient Noise Level surveys to be periodically conducted and reports should be furnished to TNPC Board.
- b) Maintain good housekeeping practices where ever possible within the unit premises to control fugitive dust emission.
- c) Buffer stock of raw materials [coconut shells and other biomass] of not more than 10 days requirement shall be stored within the unit premises.
- d) Raw materials and finished products shall be stored separately and all steps shall be taken to comply with the fire safety procedures enacted in law.
- e) Adequate measures of safety for workers working in the charcoal units shall be taken. Personally protective devices such as mask, helmet, safety shoes, etc. shall be provided to workers.
- f) Local body clearance for the establishment and operation of the unit with other statutes.

As the practice of continuous process for charcoal manufacture is limited in Tamilnadu, the proposed industries may construct a pilot unit and operate as per the guidelines of TNPCB. Refinements, if any, in the design may be considered based on the performance of the pilot plant. The project proponents may be permitted to develop and improvise their own design adopting all the modifications and general guidelines given by TNPCB and incorporating features of easy operation, higher safety, high efficiency, energy saving and environment protection. The modifications under taken in the plant shall be inspected and certified by an authorized process and safety consultant for the same and efficient working.

Further, in case of the existing charcoal industries going for expansion activity, they shall adopt the continuous process, by following the guidelines mentioned in the TNPCB Joint Committee Report vetted by Anna University as mentioned above.

In case of existing activated Carbon manufacturing units undertaking backward integration of Charcoal manufacturing (By adopting continuous process) will not be insisted for siting criteria, however air pollution control measures, fugitive emission control, standard for Charcoal units, green belt development and other requirements shall be full filled.

P. Jeyaraj
22/06/2022
For Member Secretary

To

1. All Joint Chief Environmental Engineers (Monitoring),
Tamil Nadu Pollution Control Board
2. All District Environmental Engineers, Environmental Engineers Flying Squad,
Assistant Environmental Engineers,
Tamil Nadu Pollution Control Board

Copy to

1. All Joint Chief Environmental Engineers,
Tamil Nadu Pollution Control Board,
Corporate Office, Chennai-32.
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Tamil Nadu Pollution Control Board,
Corporate Office Chennai-32.-**For necessary action**
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