

116
BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI
Original Application No. 217 of 2026

In the matter of:

Divya Dwivedi

...Applicant

Versus

State of Uttar Pradesh &Ors.

.... Respondent(s)

Index

S. No	Particulars	Page No.
1.	Response on behalf of Central Pollution Control Board (CPCB) respondent no. 08 in compliance to Hon'ble NGT order dated 09.04.2026 in O.A No. 217 of 2026.	
2.	Annexure- IA copy of direction dated 30.01.2024 issued by CPCB to all SPCBs/PCCs.	
3.	Annexure- II A copy of direction dated 10.02.2024 issued by CPCB to all SPCBs/PCCs.	
4.	Annexure- III A copy of Revised SOP dated 16.01.2024 issued by CPCB	
5.	Annexure- IV A copy of email dated 19.01.2024 regarding implementation of revised SOP.	
6.	Annexure- V A copy of letter dated 20.03.2024 regarding implementation of revised SOP.	
7.	Annexure- VI A copy of direction dated 29.04.2025 issued by CPCB to all SPCBs/PCCs for implementation of revised SOP.	



Filed by Advocate Suman Arora
On behalf of Central Pollution Control Board

Place: Delhi

Dated: 17.07.2026

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI
Original Application No. 217 of 2026**

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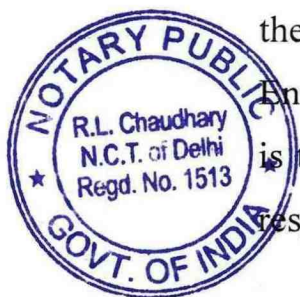
State of Uttar Pradesh & Ors.

.... Respondent(s)

**RESPONSE ON BEHALF OF RESPONDENT NO. 8, i.e. CENTRAL
POLLUTION CONTROL BOARD**

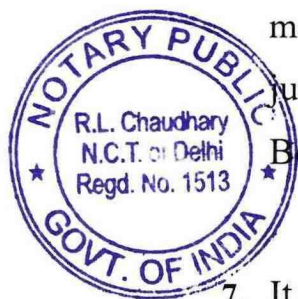
Most respectfully sheweth:

1. That the Hon'ble National Green Tribunal, Principal Bench, New Delhi (hereinafter referred to as "Hon'ble NGT") vide its order dated 09.04.2026 has sought the reply/response of Central Pollution Control Board (hereinafter referred to as "CPCB"/"Answering Respondent") in the instant Original Application No.217/2026. Thereby, the response is made in the succeeding paragraphs.
2. The issue at hand is related to the allegation against Tyre Pyrolysis Units (Private Respondent nos. 9 to 12) violating the environmental norms, under the provisions of Water (Prevention and Control of Pollution) Act, 1974; the Air (Prevention and Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986. It is submitted that respondent no. 9 is the only tyre pyrolysis unit among the four respondents and the other respondents are non-Tyre Pyrolysis Oil units.
3. That, at the outset, the Answering Respondent denies all claims, contentions, allegations and averments made against CPCB in the present



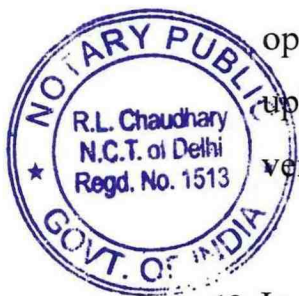
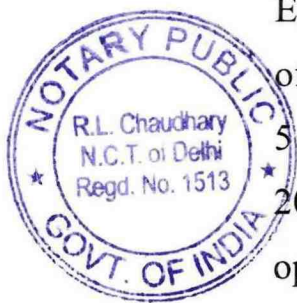
Application, contrary to anything stated or submitted in this reply. Nothing in the Application may be deemed to have been accepted or admitted by the Answering Respondent for want of a specific denial or on the ground of non-traverse, save any averment which has been expressly admitted hereinafter.

4. It is submitted that CPCB is constituted under the Water (Prevention and Control of Pollution) Act, 1974 (hereinafter referred to as "the Water Act, 1974"). It performs the functions under the Water Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 (hereinafter referred to as "the Air Act, 1981"), and the Environment (Protection) Act, 1986.
5. That State Pollution Control Boards/Pollution Control Committees (hereinafter referred to as "SPCBs/PCCs") have been constituted in States / Union Territories under the Water Act, 1974 and the Air Act, 1981 and are empowered to perform the functions and implement the provisions of these Acts in respect of their Territorial Jurisdiction.
6. Accordingly, the issues related to the grant of Consent to Establish (CTE), Consent to Operate (CTO), authorization under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, and monitoring and enforcement actions against industrial units falls within the jurisdiction of the concerned SPCB i.e., Uttar Pradesh Pollution Control Board (UPPCB) in the present case.
7. It is further submitted that the Ministry of Environment Forest & Climate Change has notified Hazardous & Other Waste (M&TM) Amendment



Rules, 2022 vide G.S.R. 593(E) dated 21.07.2022 and inserted Schedule-IX for Extended Producer Responsibility (EPR) for Waste Tyres.

8. As per the amended rules, the utilisation and management of waste tyres shall be in accordance to the provisions contained in Schedule IX.
9. As per the provisions stipulated under the Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2022 (Schedule-IX: Utilization & Management of Waste Tyres), entities dealing with waste tyres are required to register on CPCB's Waste Tyre EPR Portal.
10. However, as per CPCB records, M/s Shree Shyamanand Industries, Respondent no. 9 is not registered on the said portal.
11. It is further submitted that CPCB has issued directions under section 5 of EPA act 1986. Vide Directions dated 30.01.2024 and 19.02.2024 (copies of both the directions are at **Annexure- I & II** respectively) under Section 5 of the Environment (P) Act, 1986 (for HoW(M&TM) Amendment Rules, 2022) directed all SPCBs/PCCs to issue notice to all such entities who are operating without registration, followed by closure of such entities; physically verify the facilities of waste tyre Recyclers and Retreaders, operating in the states/UTs; and take action against such entities who have uploaded their details falsely or not correctly on the EPR Portal as per verification.
12. In pursuance to the responsibilities assigned under the HoW(M&TM) Amendment Rules, 2022, CPCB issued revised SOPs for the Tyre



Pyrolysis units in the country on 16.01.2024. A copy of the Revised SOP dated 16.01.2024 is appended herewith as **Annexure – III**.

13. The abovesaid revised SOPs for "Recycling of Waste scrap for the recovery of Tyre Pyrolysis Oil, Pyro Gas and Char in Tyre Pyrolysis Oil (TPO) Units" dated January 16, 2024. were circulated to SPCBs/PCCs for its implementation by CPCB vide email dated January 19, 2024. A copy of the said mail is appended herewith as **Annexure – IV**.
14. The revised SOP has duly taken into consideration the environmental and safety issues related with the Tyre Pyrolysis units and have addressed them. The revised SOPs required the existing convention Batch Process based TPO Units to upgrade to Advanced Batch Automated Process (ABAP) having features such as PLC based control arrangement, bypass arrangement for pyro gas from reactor door to primary condenser, installation of gas sensors, pressure, temperature gauges at reactor & storage tank, gas /fire alarm system, flaring of entire pyro gas during emergency, arrangement for re-circulation of pyro gas for reactor's heating, provision for flaring of pyro gas, suction hoods over the gate of reactor and char bagging area, water sprinkler system and mechanized arrangement for removal of char and steel scrap and arrangement of Nitrogen gas (N) purging to address environmental and safety concerns.



15. Some of the salient features of the revised SOP are as follows:

- Clearly defined minimum requirements for setting up of both batch and continuous based TPO units. The SOPs clearly states that a unit can operated with batch processed technologies only upto cumulative

capacity of 60 TPD and beyond that only continuous technologies based TPO process will be allowed.

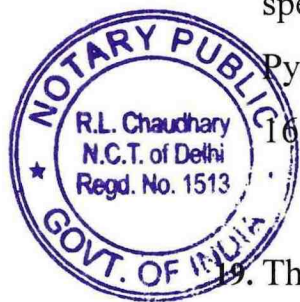
- Sitting criteria defined. As per the sitting criteria the new TPO units will only be allowed in industrial area/land.
- Requirements for controlling air emissions through Alkaline scrubber & mist eliminator and PLC (Programmed logic control) based operations for controlling flue gas emissions. The units are required to use generated pyro gas for reactor heating. The fugitive emissions from TPO operation are considered major source of emissions and are controlled through proper sealing of reactor, nitrogen purging, installation of suction hoods, water sprinklers, mechanized feeding of char from reactors, proper handling of steel generated from the process etc.
- Safety concerns have been addressed through PLC based operation of the reactors installation of sensors for detection of a leakage, provision for bypassing pyro gas as in case of emergency, provision for flaring of excessive pyro gas proper venting of oil storage tanks, fire alarms, fire hydrants etc.
- For controlling discharge of effluent water, all the TPO units have been mandated to construct Effluent Treatment Plant (ETP). As per the SOPs no unit can discharge its untreated waste water. Further the treated water is also to be re-used by the Unit itself and hence there should be zero discharge from the TPO Units. (Refer Point 2.4.23 and 2.4.24 of the revised SOPs).
- For the proper disposal of sludge generated from the TPO process, these units are required to take authorization under HoW M Rules, 2016 and dispose the hazardous waste as per the terms and conditions stipulated in the authorization.



16. Further, CPCB vide its letter No. CP-22/139/2021-HO-CPCB-HO Part (2) dated March 20, 2024 has again asked SPCBs/PCCs to implement the revised SOP for TPO. As per the revised SOPs every TPO unit has to comply with the conditions mentioned in the revised SOP. A copy of the said letter is appended herewith as **Annexure – V**.

17. That CPCB has also issued directions dated 29.04.2026 under Section 5 Environment (Protection) act, 1986 to all concerned SPCBs/PCCs for implementation of the Revised Standard Operating Procedure (SOP) for Waste TPO Units and for taking necessary action against the non-complying units. A copy of the directions dated 29.04.2026 is being appended herewith as **Annexure –VI**.

18. That the Respondent No 9, M/s Shree Shyamanand Industries is a Tyre Pyrolysis unit and therefore is required to comply with the provisions specified under the “Recycling of Waste scrap for the recovery of Tyre Pyrolysis Oil, Pyro Gas and Char in Tyre Pyrolysis Oil (TPO) dated 16.01.2024.



19. That the respondent No 9 which is a TPO unit has although obtained CTO from UPPCB but has so far not obtained registration on waste tyre EPR portal in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2022 (Schedule -IX: Utilization & Management of Waste Tyre).

20. It is respectfully submitted that non-TPO units also need to strictly comply with the provisions of the Water Act, 1974, the Air Act, 1981 and The Environment (Protection) Act 1986 and the rules framed therein as

applicable. Accordingly, the response of concerned respondents may kindly be considered for adjudication in this regard.

21. That, the answering respondent herein craves leave of the Hon'ble Tribunal to file additional reply / response, if required, in future.

22. That in light of the above submissions, it is respectfully submitted that this answering respondent, CPCB shall abide by all the order(s) or direction(s) passed by this Hon'ble Tribunal in this original application.



(Deepti Kapil)
Scientist 'E'

Central Pollution Control Board
17.07.2026

कीर्ति कपिल / Deepti Kapil
सायंटिस्ट 'ई' / Scientist 'E'
केंद्रीय प्रदूषण नियंत्रण बोर्ड
Central Pollution Control Board
(राजधानी, नए दिल्ली में स्थित, भारत सरकार)
(New Delhi, India, Govt. of India)
पंजीकृत कार्यालय, कीर्ति कपिल, नए दिल्ली-110002
Registered Office, Deepti Kapil, New Delhi-110002



**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI
Original Application No. 217 of 2026**

In the matter of:

Divya Dwivedi

...Applicant

Versus

State of Uttar Pradesh & Ors.

.... Respondent(s)

AFFIDAVIT

I, Deepti Kapil, working as Scientist 'E' in Central Pollution Control Board, Parivesh Bhawan East Arjun Nagar, Shahdara, Delhi, 110032, do hereby solemnly affirm, declare on oath and state as under: -

1. That I, the deponent herein, is well conversant with the facts and circumstances of the present case on the basis of the information derived from the official records, and hence, I am competent to verify, sign and swear this affidavit on behalf of the Answering Respondent.
2. That the accompanying response may be read as part and parcel of the present affidavit as I am competent to swear this affidavit.
3. That the contents thereof are true and correct on the basis of the record maintained during the ordinary course of business of CPCB and the available records and documents, and the contents of the same have been read over and explained to me and are not repeated herein for the sake of brevity



DEPONENT

दीप्ती कपिल / Deepti Kapil
वैज्ञानिक 'ई' / Scientist 'E'
केन्द्रीय प्रदूषण नियंत्रण बोर्ड
Central Pollution Control Board
 (पर्यावरण, वन एवं जलवायु परिवर्तन विभाग, भारत सरकार)
 (Min. Environment, Forest & Climate Change, Govt. of India)
 परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली-110032
 Parivesh Bhawan, East Arjun Nagar, Delhi-110032

VERIFICATION

17 JUL 2026

Verified at Delhi on this ____ day of July, 2026 that the contents above are correct and true on the basis of the record of the case as maintained in the day-to-day affairs of CPCB. Nothing has been concealed therefrom or mis-stated.



ATTESTED

NOTARY PUBLIC
GOVT. OF INDIA

17 JUL 2026



DEPONENT

दीप्ती कपिल / Deepti Kapil
वैज्ञानिक 'ई' / Scientist 'E'
केन्द्रीय प्रदूषण नियंत्रण बोर्ड
Central Pollution Control Board
(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार)
(M/o Environment, Forest & Climate Change, Govt. of India)
परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली-110032
Parivesh Bhawan, East Arjun Nagar, Delhi-110032



By Registered Post

File No.: CP-22/2/2024-WM-III-HO-CPCB-HO

January 30, 2024

To,
The Chairman
(All SPCBs/PCCs)

Sub: - Direction under Section 5 of the Environment (P) Act, 1986 regarding registration of Producers/Manufacturer of Tyre, Waste Tyre Recyclers and Retreaders on CPCB Waste Tyre EPR Portal for Management of Waste Tyre and verification of capacities allocated to the recyclers - reg.

WHEREAS, the Ministry of Environment, Forest and Climate Change (MoEF&CC), vide its notification No. G.S.R 593(E) dated July 21, 2022 has notified "Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2022", for utilization & management of waste tyre under the Extended Producer Responsibility (EPR) regime. In compliance with the provisions of the Hazardous & Other Waste (Management & Transboundary Movement) Amendments Rules, 2022, an online EPR Waste Tyre Portal has been developed where entities such as Producers, Recyclers, and Retreaders of the Waste Tyre are required to be registered. Registration module for registration of Producers and Recyclers are operational. The Portal is operational at URL <https://www.eprtyrespcb.in/>; and

WHEREAS, in accordance with the provisions of the above Rules, the entities as above are not allowed to carry out their business without registration on the online Waste Tyre EPR Portal. In compliance to the Rules, it is required to ensure registration of all aforesaid entities of your State/UT on the Waste Tyre EPR Portal; and

WHEREAS, modules for registration of Producers and Recyclers are operational since 17th March 2023 and 18th August 2023 respectively; and

WHEREAS, CPCB is registering entities such as Producers/Manufacturers of tyres & tubes and Recyclers and Retreaders of waste tyre on the Waste Tyre EPR Portal, on the basis of consent to operate (CTO) and Authorization under HOW(M&TM) Rules, 2016, given by SPCBs/PCCs. CPCB based on the declaration/submission by the entities, grants registration to the entities with consented capacity; and

WHEREAS, under Rule 21 of HOW (M& TM) Rules, 2016 responsibility of authorities has been in specified in column (2) of Schedule VII. As per Column (2) at sl. no. 4, duties of SPCBs/PCCs have been provided and SPCBs/PCCs are required to monitor compliance of various provisions and conditions of the permissions and also required to take action against violations of these rules; and

WHEREAS, CPCB vide its letter dated 15th January 2024 to SPCBs/PCCs requested for ensuring registration of entities such as Producers, Recyclers and Retreaders on the waste tyre EPR Portal; and

WHEREAS, a series of review meetings were conducted by CPCB to follow-up with SPCBs/PCCs including meetings chaired by the Member Secretary, CPCB for on-boarding of the above entities.

WHEREAS, CPCB has sensitized entities in your State and officials of your Board/Committee during the Regional Interaction meets held in your region (19th, 20th, 30th October, 2023 and

Page 1 of 2

‘परिवेश भवन’ पूर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, New Delhi - 110032

दूरभाष/Tel: 43102030, 22305792, वेबसाइट/Website : www.cpcb.nic.in

November 20, 2023) regarding the compliance of the above said Rules including registration by the entities on the Waste Tyre EPR Portal; and

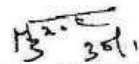
WHEREAS, login IDs and credentials have been generated on the Waste Tyre EPR Portal for SPCBs/PCCs; and

WHEREAS, in view of the above, on-boarding of all the entities such as Producers, Recyclers and Retreaders of Waste Tyre on the Waste Tyre EPR Portal is must; and

NOW THEREFORE, in exercise of powers vested under Section 5 of the Environment (Protection) Act, 1986, following directions are hereby issued:

- To provide the updated list of entities engaged in the generation, recycling & retreading of Waste Tyre (Producers, Importers, Recyclers and Retreaders) and ensure their on boarding on the Waste Tyre EPR Portal of CPCB;
- To issue notices to all such entities who are operating without registration, followed by closure of such entities;
- To immediately physically verify the facilities of Recyclers and Retreaders in the State/UT in terms of various details such as their GPS location, GPS tagged photos/videos, waste category as raw material (waste tyre), installed plant & machinery and their actual production capacity, capability, etc. as submitted on Waste Tyre EPR Portal;
- To take action against such Recyclers and Retreaders who have uploaded their details falsely or not correctly on the EPR Portal as per verification as at point (c) above and to recommend CPCB immediately for correcting details on the EPR Portal so as to ensure that no false EPR Certificate is being generated in the State/UT. Further, necessary changes be also done in the CTO accordingly and be informed to CPCB;
- To carry out drives for identifying informal/illegal recyclers/retreaders, including clusters/areas where such illegal recyclers/retreaders are operating and to close such informal recycling/retreading units immediately.
- To facilitate the transformation of such informal recyclers/retreaders into formal recyclers/retreaders and consent mechanism by way of providing necessary technical support, hand holding, integrating with schemes in the SPCB/PCC, etc.
- To also issue advertisements in the newspapers in vernacular language for immediately closing of illegal recycling/retreading operations by the operators who do not have consent to operate, including for the common public to inform the same, if any, to SPCB/PCC and take actions as at point (e) and point (f) above.

You are hereby directed to take necessary action for compliance of aforesaid directions and submit Action Taken Report to this office within 15 days of receipt of these directions.


(Tanmay Kumar)
Chairman

Copy to:

1. Regional Directorates

: For follow-up with SPCBs/PCCs in your jurisdiction, please.

✓ 2. DH (IT), CPCB

: For uploading on CPCB website and EPR portal, please.


(Bharat Kumar Sharma)
Member Secretary

o/c

the

List of SPCBs/PCCs

S. No.	SPCB/PCC	S. No.	SPCB/PCC
1	Andaman & Nicobar Islands Pollution Control Committee, Department of Science & Technology, Dollygunj Van Sadan, Haddo P.O., Port Blair-744 102, Andaman & Nicobar	10	Gujarat Pollution Control Board, Paryavan Bhavan, Sector 10- A, Gandhinagar – 382 043, Gujarat
2	Andhra Pradesh Pollution Control Board, D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamvari Street, Kasturibaipet, Vijayawada – 520 010, Andhra Pradesh	11	Haryana State Pollution Control Board, C-11, Sector-6, Panchkula-134 109, Haryana
3	Arunachal Pradesh State Pollution Control Board, Paryavaran Bhawan, Papu Hill, Yupia Road, Naharlagun- 791 110, Arunachal Pradesh	12	Himachal Pradesh State Pollution Control Board, Him Parivesh, Phase-III, New Shimla- 171 009, Himachal Pradesh
4	Assam Pollution Control Board, Bamunimaidan, Guwahati- 781 021, Assam	13	Jammu & Kashmir Pollution Control Committee, Parivesh Bhawan, Forest Complex, Gladni, Narwal, transport Nagar, Jammu - 180 004, Jammu and Kashmir
5	Bihar State Pollution Control Board, Parivesh Bhawan, Plot No. NS-B/2, Paliputra Industrial Area, Patliputra, Patna - 800 023, Bihar	14	Jharkhand State Pollution Control Board, T.A Building, HEC, P.O. Dhurwa, Ranchi – 834 004, Jharkhand
6	Chandigarh Pollution Control Committee, Paryavaran Bhawan, Ground Floor, Sector-19 B, Madhya Marg, Chandigarh - 160 019	15	Karnataka State Pollution Control Board, Parisara Bhavan, 4th & 5th Floor,# 49, Church Street, Bangalore-560 001, Karnataka
7	Chhattisgarh Environment Conservation Board, Paryavas Bhavan, Paryavas Bhavan, North Block Sector-19, Atal Nagar, Raipur -492 002, Chhattisgarh	16	Kerala State Pollution Control Board, Plamoodu Jn., Pattom Palace P.O., Thiruvananthapuram-695 004, Kerala
8	Delhi Pollution Control Committee, Government of N.C.T. Delhi, 4th Floor, ISBT Building, Kashmere Gate, Delhi-110 006	17	Ladakh Pollution Control Committee, Wildlife Office Building, Near Council Secretariat, Opposite Police Station Housing Colony. UT Leh Ladakh – 194 101, Ladakh
9	Goa State Pollution Control Board, Nr. Pilerne Industrial Estate, Opp. Saligao Seminary, Saligao - Bardez – 403 511, Goa	18	Lakshadweep Pollution Control Committee, Department of Science, Technology & Environment, Kavarati-682 555, Lakshadweep

S. No.	SPCB/PCC	S. No.	SPCB/PCC
19	Madhya Pradesh Pollution Control Board, E-5, Arera Colony, Paryavaran Parisar, Bhopal- 462 016, Madhya Pradesh	30	Sikkim State Pollution Control Board, Department of Forest, Environment & Wildlife Management, Deorali, Gangtok, - 737 102, Sikkim
20	Maharashtra Pollution Control Board, Kalpataru Point, 2 nd – 4 th Floor, (Opp. Cine Planet Cinema), Nr. Sion Circle, Sion, Mumbai – 400 022, Maharashtra	31	Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai - 600 032, Tamil Nadu
21	Manipur Pollution Control Board, Lamphelpat, Near Imphal West D.C. Office, Imphal – 795 004, Manipur	32	Telangana State Pollution Control Board, Paryavaran Bhawan, A-3, I.E. Sanath Nagar, Hyderabad - 500 018, Telangana
22	Meghalaya State Pollution Control Board, Arden-Lumpyngngad, Shillong- 793 014, Meghalaya	33	Tripura State Pollution Control Board, Vigyan Bhawan Pandit Nehru Complex, Gorkhabasti, PO: Kunjaban, Agartala – 799 006, Tripura
23	Mizoram Pollution Control Board, New Secretariat Complex, Khatla Thlanmual Peng, Khatla, Aizawl- 796 001, Mizoram	34	Uttar Pradesh Pollution Control Board, Building No. TC-12V, Vibhuti Khand, Gomti Nagar, Lucknow - 226 010, Uttar Pradesh
24	Nagaland Pollution Control Board, Signal Point, Dimapur- 797 112, Nagaland	35	Uttarakhand Pollution Control Board, Gaura Devi Bhawan, 46 B IT Park Sahastradhara, Dehradun – 248 001, Uttarakhand
25	Odisha State Pollution Control Board, A-118, Nilakanta Nagar, Unit VIII, Bhubaneshwar – 751 012, Odisha	36	West Bengal Pollution Control Board, Paribeeh Bhavan, 10A, Block-L.A., Sector III, Bidhan Nagar, Kolkata – 700 106, West Bengal
26	Pollution Control Committee, Dadra and Nagar Haveli and Daman and Diu, 1st Floor, Udhog Bhavan Bhenslore, Dunetha Nani Daman, Daman – 396 210, Daman		
27	Puducherry Pollution Control Committee, Housing Board Complex, Anna Nagar- 600 005, Puducherry		
28	Punjab Pollution Control Board, Vatavaran Bhawan, Nabha Road, Patiala – 147 001, Punjab		
29	Rajasthan State Pollution Control Board, 4, Jhalana Institutional Area, Jhalana Doongri, Jaipur- 302 004, Rajasthan		

List of Regional Directorates, CPCB

S. No.	Name
1	The Regional Director, Central Pollution Control Board Parivesh Bhawan, Opp. Ward No. 10 VMC Office Subhanpura, Vadodara – 390 023
2	The Regional Director, Central Pollution Control Board Ground Floor, PICUP Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow – 226 010
3	The Regional Director, Central Pollution Control Board A-Block Nisarga Bhavan, 1st & 2nd Floors, 7th D Cross Thimmaiah Road, Shivanagar, Bangaluru – 560 079
4	The Regional Director, Central Pollution Control Board South end Conclave' Block-502, 5th & 6th Floor, 1582, Razidanga, Main Road, Kolkata – 700107
5	The Regional Director, Central Pollution Control Board Parivesh Bhawan, Paryavaran Parisar, E-5, Arera Colony, Bhopal – 462 016
6	The Regional Director, Central Pollution Control Board Opp. Government Press, Ground Floor, CTO Building, BSNL, Shillong – 793 001
7	The Regional Director, Central Pollution Control Board Second Floor, 77-A, South Avenue Road, Ambattur Industrial Estate, Chennai – 600 058
8	The Regional Director, Central Pollution Control Board BSNL Telephone Exchange, 2nd Floor, Sector 49 -C, Chandigarh – 160 047
9	The Regional Director, Central Pollution Control Board Survey No. 110, Dhankude, Multi-Purpose Hall, Baner Road, Baner, Pune – 411 045



131

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

Registered Post

File No.: CP-22/2/2024-WM-III-HO-CPCB-HO

February 19, 2024

To,

The Chairman
 (All SPCBs/ PCCs)

Sub: - Direction under Section 5 of the Environment (P) Act, 1986 for ensuring generation of EPR Certificates by Waste Tyre Recyclers towards fulfilment of Producers EPR obligations for the FY 2022-23 and 2023-24 – Regarding

WHEREAS, the Ministry of Environment, Forest and Climate Change (MoEF&CC), Govt. vide its notification No. G.S.R 593(E) dated July 21, 2022 has notified "Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2022" by inserting after sub-rule (3) of rule 9 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, the sub-rule (4) on the utilization and management of waste tyre under the Extended Producer Responsibility (EPR) regime, which shall be in accordance with the paragraphs contained in Schedule IX which shall be after Schedule VIII of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. In compliance with the paragraphs of Schedule IX of the above said rules, an online EPR Waste Tyre Portal has been developed where entities such as Producers, Recyclers and Retreaders are required to be registered. Registration module for registration of Producers and Recyclers are operational. The Portal is operational at URL <https://www.eprtyrespcb.in/>; and

WHEREAS, in accordance with the provisions in paragraph 5 of the Schedule IX of above said Rules, Central Pollution Control Board shall generate EPR certificate, through Portal in favour of registered recyclers. The quantity eligible for generation of EPR certificate shall be based on the quantity of Waste Tyre recycled by the recyclers; and

WHEREAS, as per the provisions in paragraph 4 (4)(i) and 6(2) of Schedule IX of the above Rules, all Producers are required to fulfil their assigned Extended Producer Responsibility (EPR) obligations by online purchase of EPR Certificates generated on the EPR Portal from registered Recyclers of waste tyres only; and

WHEREAS, paragraph 4(5) of the Schedule IX provides for modalities of extended producer responsibility regime for which the Central Pollution Control Board shall specify the standard operating procedure strictly in accordance with the provisions of the Schedule; and

WHEREAS, guidance document for generation and transfer of EPR certificate has been provided on the waste tyre EPR Portal; and

WHEREAS, paragraphs 8 of the Schedule IX of the above said rules provides for responsibilities of the recycler and as per paragraph 8 (1) all the recycler shall submit on monthly basis the information regarding quantity of waste tyres used and end product produced, extended producer responsibility certificate sold and such other relevant information on the EPR Portal; and

‘परिवेश भवन’ पूर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, New Delhi - 110032

दूरभाष/Tel: 43102030, 22305792, वेबसाइट/Website : www.cpcb.nic.in

Page 1 of 3



WHEREAS, registered recyclers have to upload details of quantity of waste tyre procured/collected/imported, recycled, end products produced and sold on the waste tyre EPR portal as per the guidance document for generation and transfer of EPR certificates (as available at CPCB EPR portal and a copy is also attached herewith for ready reference) based on which EPR certificate is generated online on the portal. The producer is required to fulfil their extended producer responsibility through online purchase of such EPR certificates from registered recyclers of waste tyre; and

WHEREAS, SPCBs/PCCs have been provided with login credentials on the waste Tyre EPR Portal for viewing details of recyclers such as GPS tagged photographs & video of plants & machineries, uploaded CTO & Authorization, uploaded details on quantity of waste tyre procured/collected/imported, recycled, end products produced and sold for generation of EPR certificates, guidance document for generation and transfer of the EPR Certificates etc; and

WHEREAS, under Rule 21 of HOW (M & TM) Rules, 2016 responsibility of authorities has been specified in column (2) of Schedule VII. As per column (2) at Sl. No. 4 duties of SPCBs have been provided and SPCBs/PCCs are required to monitor compliance of various provisions and conditions of the permissions and also require to take action against violations of these rules; and

WHEREAS, as per the provision in paragraph 4(4)(v) of Schedule IX of the above Rules, the EPR certificates shall be subject to environmental audit by the agencies authorized by the Central Government in this regard; and

WHEREAS, in accordance with paragraph 12 of the Schedule IX the Central Pollution Control Board by itself or through a designated agency shall verify compliance of producers or recyclers through inspection and periodic audit, as deemed appropriate and the actions against violations and for non-fulfilment of extended producer responsibility target, obligations and responsibilities shall be in accordance with the provisions of paragraph 10 of the Schedule; and

WHEREAS, CPCB has issued notice dated 01-02-2024 to waste tyre recyclers for generation of EPR Certificate against the waste tyre recycled; and

WHEREAS, availability of sufficient quantity of EPR certificate on the waste tyre EPR Portal is a prerequisite for fulfilment of EPR obligation of the Producers; and

WHEREAS, in view of the above, verification of the documents, invoices uploaded by the recyclers for generation of EPR certificate is must; and

WHEREAS, CPCB has issued direction dated 30-01-2024 under section 5 of the Environment (P) Act 1986 to SPCBs/PCCs (as per the enclosed list) to immediately physically verify the facilities of Recyclers and Retreaders in the State/UT in terms of various details such as its GPS location, GPS tagged photo/video, waste category as raw material (waste tyre), installed plant & machinery and their actual production capacity, capability, etc. as submitted on Waste Tyre EPR Portal; and

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WHEREAS, vide aforesaid direction dated 30-01-2024, it has also been directed to take action against such Recyclers and Retreaders who have uploaded their details falsely or not correctly on EPR Portal as per verification as above and to recommend to CPCB immediately for correcting details on EPR portal so as to ensure that no false EPR Certificate is being generated in the State/UT. Further, necessary changes be also done in the CTO accordingly and be informed to CPCB; and

NOW THEREFORE, in exercise of the power vested under Section 5 of the Environment (Protection) Act, 1986, and in continuation of the direction dated 30-01-2024 under Section 5 of the Environment (Protection) Act, 1986 the following directions are hereby issued:

- a. To issue notice to all recyclers, who are recycling Waste Tyre but not uploading requisite documents, invoices as per the above-mentioned guidance document, for generation of EPR certificates on the waste tyre EPR portal;
- b. To withdraw/suspend/cancel CTO of such waste tyre recyclers for non-compliance of (a) above;
- c. To carry out verification of various documents/invoices/information uploaded by the waste tyre recyclers on the EPR Portal for quantity of waste tyre procured/collected/imported, recycled, end product produced and sold for generation of EPR certificates and also verify their installed plant & machinery and their capacities and capability.

You are hereby directed to take necessary action for compliance of aforesaid directions and submit Action Taken Report to this office within 15 days of receipt of these directions.

13/12
(Tanmay Kumar)
Chairman

Copy to:

1. Regional Directorates : For follow-up with SPCBs/PCCs in your jurisdiction, please
- ✓ 2. DH (IT), CPCB : For uploading on CPCB website and EPR Portal, please.

RA
(Bharat Kumar Sharma)
Member Secretary

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List of SPCBs/PCCs

S. No.	SPCB/PCC	S. No.	SPCB/PCC
1	Andaman & Nicobar Islands Pollution Control Committee, Department of Science & Technology, Dollygunj Van Sadan, Haddo P.O., Port Blair-744 102, Andaman & Nicobar	10	Gujarat Pollution Control Board, Paryavan Bhavan, Sector 10- A, Gandhinagar – 382 043, Gujarat
2	Andhra Pradesh Pollution Control Board, D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamvari Street, Kasturibaipet, Vijayawada – 520 010, Andhra Pradesh	11	Haryana State Pollution Control Board, C-11, Sector-6, Panchkula-134 109, Haryana
3	Arunachal Pradesh State Pollution Control Board, Paryavaran Bhawan, Papu Hill, Yupia Road, Naharlagun- 791 110, Arunachal Pradesh	12	Himachal Pradesh State Pollution Control Board, Him Parivesh, Phase-III, New Shimla- 171 009, Himachal Pradesh
4	Assam Pollution Control Board, Bamunimaidan, Guwahati - 781 021, Assam	13	Jammu & Kashmir Pollution Control Committee, Parivesh Bhawan, Forest Complex, Gladni, Narwal, transport Nagar, Jammu - 180 004, Jammu and Kashmir
5	Bihar State Pollution Control Board, Parivesh Bhawan, Plot No. NS-B/2, Paliputra Industrial Area, Patliputra, Patna - 800 023, Bihar	14	Jharkhand State Pollution Control Board, T.A Building, HEC, P.O. Dhurwa, Ranchi – 834 004, Jharkhand
6	Chandigarh Pollution Control Committee, Paryavaran Bhawan, Ground Floor, Sector-19 B, Madhya Marg, Chandigarh - 160 019	15	Karnataka State Pollution Control Board, Parisara Bhavan, 4th & 5th Floor, # 49, Church Street, Bangalore-560 001, Karnataka
7	Chhattisgarh Environment Conservation Board, Paryavas Bhavan, Paryavas Bhavan, North Block Sector-19, Atal Nagar, Raipur -492 002, Chhattisgarh	16	Kerala State Pollution Control Board, Plamoodu Jn., Pattom Palace P.O., Thiruvananthapuram-695 004, Kerala
8	Delhi Pollution Control Committee, Government of N.C.T. Delhi, 4th Floor, ISBT Building, Kashmere Gate, Delhi-110 006	17	Ladakh Pollution Control Committee, Wildlife Office Building, Near Council Secretariat, Opposite Police Station Housing Colony, UT Leh Ladakh – 194 101, Ladakh
9	Goa State Pollution Control Board, Nr. Pilerne Industrial Estate, Opp. Saligao Seminary, Saligao - Bardez – 403 511, Goa	18	Lakshadweep Pollution Control Committee, Department of Science, Technology & Environment, Kavarati-682 555, Lakshadweep

S. No.	SPCB/PCC	S. No.	SPCB/PCC
19	Madhya Pradesh Pollution Control Board, E-5, Arera Colony, Paryavaran Parisar, Bhopal- 462 016, Madhya Pradesh	30	Sikkim State Pollution Control Board, Department of Forest, Environment & Wildlife Management, Deorali, Gangtok, - 737 102, Sikkim
20	Maharashtra Pollution Control Board, Kalpataru Point, 2 nd – 4 th Floor, (Opp. Cine Planet Cinema), Nr. Sion Circle, Sion, Mumbai – 400 022, Maharashtra	31	Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai - 600 032, Tamil Nadu
21	Manipur Pollution Control Board, Lamphelpat, Near Imphal West D.C. Office, Imphal – 795 004, Manipur	32	Telangana State Pollution Control Board, Paryavaran Bhawan, A-3, I.E. Sanath Nagar, Hyderabad - 500 018, Telangana
22	Meghalaya State Pollution Control Board, Arden-Lumpyngngad, Shillong- 793 014, Meghalaya	33	Tripura State Pollution Control Board, Vigyan Bhawan Pandit Nehru Complex, Gorkhabasti, PO: Kunjaban, Agartala – 799 006, Tripura
23	Mizoram Pollution Control Board, New Secretariat Complex, Khatla Thlanmual Peng, Khatla, Aizawl- 796 001, Mizoram	34	Uttar Pradesh Pollution Control Board, Building No. TC-12V, Vibhuti Khand, Gomti Nagar, Lucknow - 226 010, Uttar Pradesh
24	Nagaland Pollution Control Board, Signal Point, Dimapur- 797 112, Nagaland	35	Uttarakhand Pollution Control Board, Gaura Devi Bhawan, 46 B IT Park Sahasradhara, Dehradun – 248 001, Uttarakhand
25	Odisha State Pollution Control Board, A-118, Nilakanta Nagar, Unit –VIII, Bhubaneswar – 751 012, Odisha	36	West Bengal Pollution Control Board, Paribesh Bhawan, 10A, Block-L.A., Sector III, Bidhan Nagar, Kolkata – 700 106, West Bengal
26	Pollution Control Committee, Dadra and Nagar Haveli and Daman and Diu, 1st Floor, Udhog Bhawan Bhenslore, Dunetha Nani Daman, Daman – 396 210, Daman		
27	Puducherry Pollution Control Committee, Housing Board Complex, Anna Nagar- 600 005, Puducherry		
28	Punjab Pollution Control Board, Vatavaran Bhawan, Nabha Road, Patiala – 147 001, Punjab		
29	Rajasthan State Pollution Control Board, 4, Jhalana Institutional Area, Jhalana Doongri, Jaipur- 302 004, Rajasthan		

List of Regional Directorates, CPCB

S. No.	Name
1	The Regional Director, Central Pollution Control Board Parivesh Bhawan, Opp. Ward No. 10 VMC Office Subhanpura, Vadodara – 390 023
2	The Regional Director, Central Pollution Control Board Ground Floor, PICUP Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow – 226 010
3	The Regional Director, Central Pollution Control Board A-Block Nisarga Bhavan, 1st & 2nd Floors, 7th D Cross Thimmaiah Road, Shivanagar, Bangaluru – 560 079
4	The Regional Director, Central Pollution Control Board South end Conclave' Block-502, 5th & 6th Floor, 1582, Razidanga, Main Road, Kolkata – 700107
5	The Regional Director, Central Pollution Control Board Parivesh Bhawan, Paryavaran Parisar, E-5, Arera Colony, Bhopal – 462 016
6	The Regional Director, Central Pollution Control Board Opp. Government Press, Ground Floor, CTO Building, BSNL, Shillong – 793 001
7	The Regional Director, Central Pollution Control Board Second Floor, 77-A, South Avenue Road, Ambattur Industrial Estate, Chennai – 600 058
8	The Regional Director, Central Pollution Control Board BSNL Telephone Exchange, 2nd Floor, Sector 49 -C, Chandigarh – 160 047
9	The Regional Director, Central Pollution Control Board Survey No. 110, Dhankude, Multi-Purpose Hall, Baner Road, Baner, Pune – 411 045

**Standard Operating Procedure(SOP)
for
Recycling of Waste Tyre Scrap for the recovery
of
Tyre Pyrolysis Oil, Pyro Gas and Char
in Tyre Pyrolysis Oil (TPO) Units**



January 16, 2024

Central Pollution Control Board

(Ministry of Environment, Forest & Climate Change, Government of India)

Parivesh Bhawan, East Arjun Nagar, Shahdara, Delhi – 110032

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STANDARD OPERATING PROCEDURE
for
Recycling of Waste Tyre Scrap for the recovery of
Tyre Pyrolysis Oil, Pyro Gas and Char
in Tyre Pyrolysis Oil (TPO) Units

1.0 Background

In the matter of OA No. 400 of 2019 and in compliance of the Hon'ble NGT order dated 06-01-2020, seven (07) Tyre Pyrolysis Oil (TPO) Units comprising of three (03) advance batch automated tyre pyrolysis plants, three (03) existing batch units and one (01) continuous tyre pyrolysis plants were studied under the guidance of experts from NEERI and IIT Delhi. Further study of 70 TPO units were carried out with the help of SPCBs. As per the study advanced batch automated process (ABAP) and continuous tyre pyrolysis process had demonstrated compliance with regard to work zone limits and no significant impact on ambient air quality.

The study further observed that existing batch TPO Units need additional features such as PLC based control arrangement, bypass arrangement for pyro gas from reactor door to primary condenser, installation of gas sensors, pressure, temperature gauges at reactor & storage tank, gas /fire alarm system, flaring of entire pyro gas during emergency, arrangement for re-circulation of pyro gas for reactor's heating, provision for flaring of pyro gas, suction hoods over the gate of reactor and char bagging area, water sprinkler system and mechanized arrangement for removal of char and steel scrap and arrangement of Nitrogen gas (N₂) purging to address environmental and safety concerns.

In the same matter, the Hon'ble NGT vide its order dated 25.10.2021 directed to issue appropriate SoP covering siting criteria, threshold limit of a plant, carrying capacity, standards for effluents, emissions and hazardous or other waste, safety aspects to prevent accidents and for protection of public health. Accordingly, in consultation with expert members from NEERI & IIT-Delhi, the existing SoP was revised w.r.t Recycling of Waste Tyre Scrap for the recovery of Tyre Pyrolysis Oil, Pyro Gas and Char in Tyre Pyrolysis Oil (TPO) Unit.

1.1 Pyrolysis process

Pyrolysis is a thermal degradation process carried out in the absence of oxygen /air in a vessel or a chamber, so that the combustion of material does not take place. It is a process in which organic materials are thermally decomposed into simpler compounds in the temperature range of 400 – 500 °C in an oxygen-free environment. Fig. 1 shows the

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schematic diagram of waste scrap tyre pyrolysis process. Since the products of thermal decomposition are released at different temperature having varying molecular structure, the products are in all phases i.e. solid, liquid and gas. Pyrolysis of tyres and rubber products produce pyrolysis oils, pyrolysis gas (pyro-gas), char and steel. The products generated in tyre pyrolysis are as follows:

- A) **Pyro Gas:** 20 to 35 percent of a tyre's energy content is typically converted into a combustible gas (Pyro Gas) that is used to fuel the pyrolysis process or is combusted in a flare before it is released. Typically, the components of pyro gas are H_2 , H_2S , CO , CO_2 , CH_4 , C_2H_4 , C_3H_6 and other light hydrocarbons.
- B) **Pyro Oil:** 35 to 50 percent of the output from the process is transformed into a liquid product that varies in quality from saleable fuel oil to lower-value oil blend stock.
- C) **Char:** The residual solid product (referred as char constitutes 25 to 40 percent of the output and contains a mixture of carbon, silica, titanium dioxide, zinc, steel etc.
- D) **Steel:** The thin wire, which is used for reinforcement of tyre is extracted out during pyrolysis and is collected at the end, sold in the market as scrap steel.

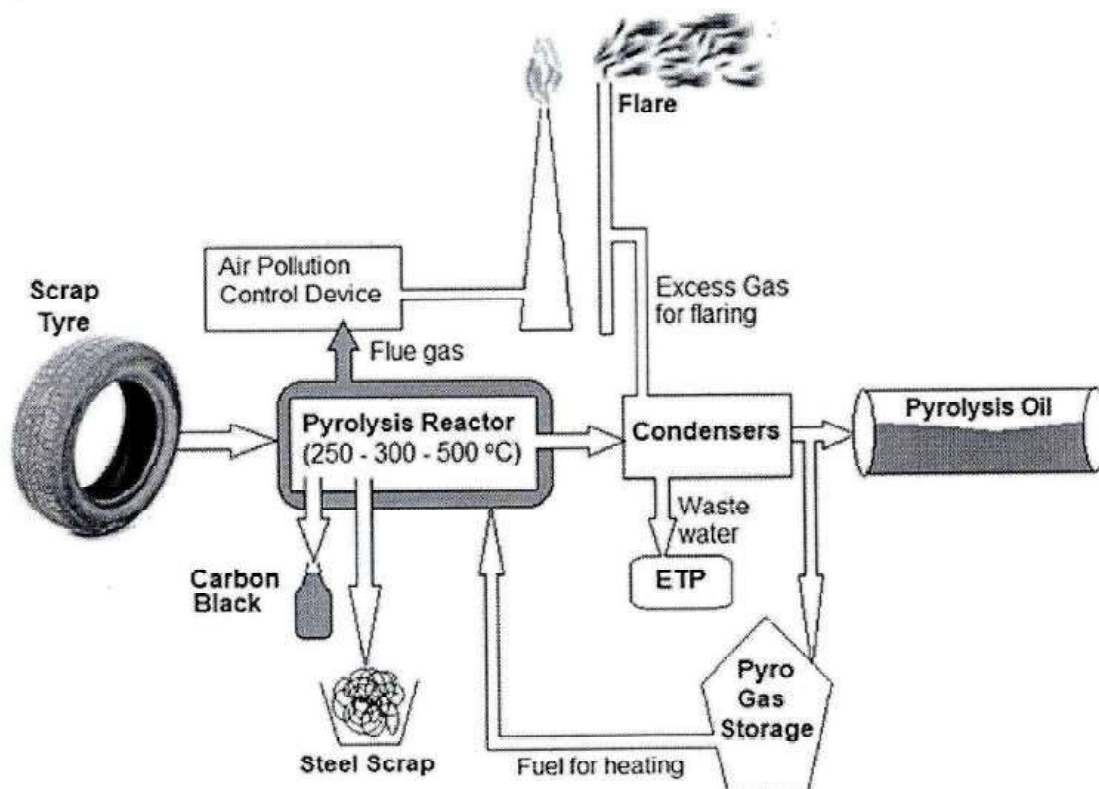


Fig. 1: Schematic diagram of waste tyre pyrolysis process

The quantity and quality of each product depends on many process variables, including temperature, pressure, and residence time. A preferred quality tyre pyrolysis oil would have molecular weight little above its boiling temperature under normal temperature and pressure. This would help in efficient combustion, and less of soot formation. Waste tyre pyrolysis plant operators are expected to have a control on rate of heating and condensation so as to produce high-quality oils with high calorific values comparable with diesel and gasoline type fuels.

Two types of Pyrolysis process are in operation in India. Batch Type and Continuous Pyrolysis process. In both type of pyrolysis processes, the final product remains the same. Most of the tyre pyrolysis units in the country are based on batch processes technology having different types of process control, safety mechanism, raw material, finish product and waste handling facilities. There is a need to standardize the operations and facilities at Tyre Pyrolysis Oil (TPO) Units to achieve environmentally sound and safe operation of these units.

From the study carried out, it was observed that Advanced Batch Automated Process (ABAP) and continuous tyre pyrolysis process had no significant impact on ambient air quality. Therefore, for standardizing the batch type pyrolysis operations, Advanced Batch Automated Process (ABAP) type TPO Unit shall only be allowed.

2.0 Siting Criteria, Carrying Capacity and Standard Operating Procedures (SoP) for Advanced Batch Automated Process (ABAP) type TPO units:

2.1 Siting Criteria for ABAP type TPO Units

The siting criteria is applicable only to new /proposed units. New ABAP type TPO unit shall be allowed only in the industrial areas/land.

(I) Siting criteria for ABAP type TPO Units:

The criteria for siting of ABAP type TPO units depends on the following facts:

- i) There are no organized continuous process emissions in tyre pyrolysis process.
- ii) The air pollutant emission in ABAP type TPO unit is from burning of fuel for heating purpose and intermittent flaring of excess pyro gas or its emergency release;
- iii) The plot area of the TPO Unit carries more weightage as the emission from TPO unit does not affect far away community, instead it is the immediate neighbourhood that is affected. Char, being large size particle if spilled in the plant premises during its handling cannot travel to larger distance under the influence of wind;
- iv) The environmental concern from TPO Unit is spillage of Char in the work zone while removing it from the reactor and its subsequent packing into the

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bags. The influence zone due to this spillage is limited within the premise of the unit;

- v) The odour from TPO Unit are localized and confined to premises and adjacent areas.

Followings are the criteria for site consideration for new units:

- i) New ABAP type TPO Unit having individual reactor capacity of 10 tonnes to 20 tonnes should only be allowed;
- ii) Considering the possible impacts in neighbourhood, TPO Unit having cumulative maximum batch capacity up to 60 tonnes per day (TPD) only be allowed within a premises and this is applicable for new ABAP type Units /expansion in existing batch type TPO Unit.
- iii) Beyond cumulative batch capacity of 60 TPD, only continuous process type TPO unit be allowed in case of setting up of new ABAP type units or expansion in existing TPO Unit in a single premises.
- iv) For new ABAP type TPO Unit the minimum plot area shall be 3000 square meters for a single reactor of 10 to 12 tonnes capacity and the area will increase by 750 square meters for every additional reactor of capacity 10 to 12 tonnes and will increase up to 6000 square meters.
- v) For new proposed ABAP type TPO unit the minimum plot area shall be 4000 square meters for a single batch reactor of 20 tonnes capacity and the area will increase by 1000 square meter for every additional reactor and will increase up to 6000 square meters.
- vi) For new proposed continuous TPO unit the minimum plot area should be 7000 square meters irrespective of number of reactors.

(II) Green Belt Requirement

The green belt should be as per consent conditions or as per the guidelines of Central and State Government and in no case less than 5% of the total area of the plot.

(III) Movement of Fire-Tenders

Paved road to be provided for movement of the fire-tenders. No material is allowed to be stored (no obstruction) on this paved road. SPCBs /PCCs to ensure this requirement, while issuing new CTE/CTO.

2.2 Carrying Capacity of the area for siting of ABAP type Tyre Pyrolysis Oil (TPO) Units

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The committee constituted by the Hon'ble NGT in the is of the view that carrying capacity may not be required in case of individual Tyre Pyrolysis Units of capacity 10 - 60 TPD, since these are small pyrolytic operations with no process emissions and there are only flue gas emissions due to combustion of fuels for reactors or in flare stacks.

In order to minimize impact on adjacent areas, the minimum plot area as stipulated in section 2.1 is required by the unit.

2.3 Threshold Limits for Tyre Pyrolysis Oil (TPO) Units (New TPO Units and expansions in Existing TPO units)

The threshold limit is applicable to new /proposed units or expansion in the existing units. Followings are the threshold limits for the TPO units:

- i) New ABAP type TPO units or expansion in existing units having cumulative batch capacity up to 60 TPD only shall be allowed.
- ii) Beyond cumulative batch capacity of 60 TPD for new units or expansion in existing units, only continuous type TPO unit shall be allowed.

2.4 Standard Operating Procedure (SoP) of ABAP type TPO Units

A) Minimum Requirement for Environmentally Sound Operation:

2.4.1	Unit should have a valid Consent to Establish (CTE), Consent to Operate (CTO) under Water and Air Act and Authorization under the Hazardous and Other Waste (M & TM) Rules, 2016 issued by SPCB / PCC & Fire Safety Certificate issued by the concerned department.
2.4.2	Unit to comply with emission & effluents standards as prescribed by the concerned SPCBs/ PCCs in consent to operate (CTO) under Air and Water Act. Further the management of Hazardous waste generated has to be done as per the conditions prescribed in the authorization issued by the SPCBs / PCCs under the Hazardous and Other Waste (M & TM) Rules, 2016.
2.4.3	The feed to ABAP type reactor has to be in the form of used tyre scrap – whole tyres /cut tyres / chips / shred /mulch /granules etc.
2.4.4	Initial heating of the reactor has to be done either by using pyro gas stored during previous cycle or by use of pyro water / purge water (oil mix water) / oil water emulsion, or by tyre pyrolysis oil or any other fuel approved by concerned SPCBs /PCCs. After generation of pyro gas, the same is to be used for the purpose of heating reactor. The flue gas should be vented out to the environment through an alkaline scrubber with mist eliminator attached to a chimney of at least 30 meters height. Plants to install adequate air pollution control devices (APCDs) for controlling flue gas emissions.

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2.4.5	A compressor / air blower has to be installed for mixing of air with pyro water for ensuring proper burning while using pyro water/purge water during initial heating.
2.4.6	In order to control fugitive emissions from the reactor shell during operation, its proper sealing should be ensured.
2.4.7	ABAP type TPO units to construct or install a sufficient capacity suction hood / industrial dust collector attached to a bag filter at feeding door and same should must be operational at the time of removal of steel scrap wire and char from the reactor.
2.4.8	Suction hoods also to be installed at all the transfer points across the work zone such as at char bagging area etc. to control fugitive emissions. All suction hood to be connected to a common manifold leading to alkaline scrubber with mist eliminator attached with stack of 30 m height (installed for venting out flue gas emissions).
2.4.9	Unit to ensure no spillage of char during removal/ unloading of steel scrap from the reactor. The flooring should be paved/ concretized along with proper slope and drains for movement of steel scrap. This operation to be made cleaner by use of vacuum cleaner after each batch operation.
2.4.10	Unit to install water sprinkling system for prevention of fugitive emission at the all transfer points for arresting fugitives.
2.4.11	The removal of char should be through a mechanized system. The unloading of char from the reactor is to be done under controlled conditions in such a manner that the material inside the reactor is not open to the atmosphere at any point of time. The char shall be bagged in the HDPE bags with proper sealing. It should be ensured that no spillage take place during the collection of the char in the bags. The removal of char should be started only after Nitrogen purging.
2.4.12	A permanent arrangement should be made for Nitrogen purging. Pre-filled nitrogen gas cylinders will not be allowed to use for purging. All units to have PLC based Nitrogen generator as per the following requirement:

Number of Reactors	Nitrogen Generator capacity (Nm ³ /h)	Storage Tank Capacity (Liters)
1	3	1000
2	5	1500
3	7	2000
4	10	3000
> 4	12	4000

2.4.13	Excess pyro gas if any should be flared through properly designed flaring system of adequate capacity considering the emergency situation
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	in which the entire gas may have to be flared. The flaring should be done at a minimum height of 30 meter.
2.4.14	Unit to install Programme Logic Controller (PLC) based system for control of temperature and pressure inside the reactor.
2.4.15	Unit to install Programme Logic Controller (PLC) based auto activation for stopping of gas supply to the burner and for switching off the burners in case of increase of pressure and temperature inside the reactor.
2.4.16	Unit to install PLC based auto activation of bypass arrangements for bypassing the pyro gas from reactor to first separator tank in case of blocking /chocking of outlet vent inside the reactor or direct bypass for flaring
2.4.17	Unit to install PLC based carbon monoxide (CO) gas sensors connected with sirens (hooters) in case of release of CO.
2.4.18	The collection of the oil from the condensers should be in closed vessel and storage also should be in closed metallic tanks. (Oil / Liquid is stored at atmospheric pressure in metallic tank. Since this is not pressurized tank, there is no need of vent. The presence of vent releases low molecular weight HC into the air and creates odour, which is objected by the neighbourhood.) There should be no manual handling of oil. Transfer of oil should be carried out through pumps.
2.4.19	Unit to connect first separator tank with the oil storage tank for storing heavy oil fraction. There should not be any release valve at the first separator tank.
2.4.20	At the end of the pyrolysis process the reactor has to be cooled before the removal of char. During cooling process, the reactor should be purged with Nitrogen gas.
2.4.21	The removal of char should be started after the reactor temperature comes down to below 50 °C or first separator tank temperature comes down to 40 °C.
2.4.22	The inside temperature of the reactor should not exceed 500 °C and the first separator tank temperature should not exceed 450 °C during the entire batch operation.
2.4.23	Waste water (Pyro water/Purge water/Oil mixed water/oil water emulsion) generated during the process should not be discharged anywhere and:

i)	Should be treated in suitable ETP of sufficient capacity. Oily sludge should be disposed through TSDF or can be used to make char briquettes, for subsequent transfer /sale to the cement manufacturing plants or other such industries having authorization for co – processing or;
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- a. ETP discharge may be used for briquettes manufacturing. The briquettes so manufactured shall be disposed through processing in cement kiln

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- b. ETP sludge may be used for briquettes manufacturing. The briquettes so manufactured shall be disposed through processing in cement kiln.

ii)	Pyro water/Purge water /Oil mixed water/oil water emulsion may be used for briquettes manufacturing in a briquetting plant by mixing it with sawdust and char in suitable proportions. These briquettes so manufactured using the pyro water/purge water/oil mixed water/oil water emulsion and char are to be utilized only in processes where temperature is 1000 °C or more to avoid emissions of obnoxious gases; or
iii)	Pyro water/Purge water/ oil mix water/oil water emulsion should be used for Initial heating of the reactor.

2.4.24	Unit to ensure that treated water be re-used in unit itself & there is zero effluent discharge.
2.4.25	Unit to have a covered /closed separate storage tank for storage of pyro water /purge water /oil mix water/ oil water emulsion. The pyro water be transferred from final storage tank to pyro water / purge water / oil mix water / oil water emulsion storage tank in closed loop through pumps.
2.4.26	Unit should carry out stack and ambient air quality monitoring for SO ₂ , PM and CO at least once in six months from a recognized laboratory at identified monitoring location. The unit shall maintain a log book for recording the plant, operation, monitoring of the stack emissions and ambient air quality, generation & utilization of wastewater & sale of various products and by-products.
2.4.27	The transportation of Char should be done in bags (small or jumbo) in closed vehicles to ensure that there is no spillage of char during their transportation.
2.4.28	The transportation of Tyre Pyrolysis Oil (TPO) should strictly be done in closed tankers to ensure that there is no spillage of TPO during their transportation.
2.4.29	The char generated in the process shall be utilized either in co-processing in the cement industry or its quality be upgraded to Recovered Carbon Black (RCB). RCB may be used as raw material for manufacture of new tyre and other processes.
2.4.30	The Tyre Pyrolysis Oil and char shall be stored in areas separate / distinct from the processing area (shed where the reactors are installed). Tyres shall be stored in earmarked area / open area on a paved platform.

B. Safety Measure to be adopted

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2.4.31	Automatic control systems such as Programmed Logic Control (PLC) shall be adopted for measurement and control of temperature and pressure along with safety inter-locks in case of increase of temperature or pressure to cut off heating of the reactor should be provided. It should be ensured that the reactor is under positive pressure at all the time.
2.4.32	A sensor for CO gas to be installed in the working area to ensure that concentration of CO in the working area does not exceed the prescribed limits for occupational safety and health as per Factory Act 1948. It will also be coupled with a warning /alarm system so that the plant operator can take adequate steps to rectify the situation.
2.4.33	Sensors along with alarm system should be provided at all the transfer points throughout the plant to detect any leakage of flammable vapours from the system.
2.4.34	Fire detectors, sprinklers and fire hydrant with necessary pumping system and water storage should be provided in the process area, product and raw material storage area.
2.4.35	Unit to install fire hydrant system connected directly to the water tank and DG set for direct electric supply. Unit should also have ABC type fire extinguisher cylinders & fire buckets filled with sand and water.
2.4.36	The safety instruction for safe operation of plant will be displayed at the gate, plant working area and other critical places. Further, training will be imparted to the workers for safe operation of these plants.
2.4.37	On site emergency plan, as per the requirements under the Factories Act, 1948, will be made and implemented to handle any accident, fire/ leakage or any other emergency situation. All such measures shall include raw material storage, product storage and handling thereof.
2.4.38	The plant will be operated under the continuous supervision of a qualified person having experience of running such units.
2.4.39	All the persons /workers in the premises should wear an air filter mask to avoid inhaling of the fine char particles.
2.4.40	Unit will maintain good house-keeping and will ensure that no raw material products and wastes get spilled inside or outside the plant.
2.4.41	Unit to carry out annual health check-up of all the employees working in the unit & submit its report to concerned SPCBs/PCCs on annual basis.
2.4.42	Workers should be trained to handle fire. Workers should be given mock drill exercise for fire hazard incident. Assuming fire at the hatch door due to leakage of pyro-gas, what action, the workers should do? Training to use CO ₂ type fire extinguishers. Regular visit and inspection to check the training to workers.

2.5 Continuous Process (New & Existing):

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A. Minimum Requirement for Environmentally Sound Operation:

2.5.1	Unit should have a valid Consent to Establish (CTE) and Consent to Operate (CTO) under Water and Air Act and Authorization under the Hazardous & Other Waste (M&TM) Rules, 2016 issued by SPCB /PCC & Fire Safety Certificate issued by the concerned department.
2.5.2	Unit to comply with emission & effluents standards as prescribed by the concerned SPCB/PCC in consent to operate (CTO) under Water and Air Act. Further the management of Hazardous Waste generated to be done as per the conditions prescribed in the authorization issued by the SPCB/PCC under the Hazardous Waste (M&TM) Rules, 2016.
2.5.3	The feeding system should be provided with an air-lock arrangement so that no air enters the reactor during feeding.
2.5.4	Initial heating of the reactor to be done either by using pyro gas stored during previous cycle itself or by use of purge water (oil mix water)/oil water emulsion, or by tyre pyrolysis oil or any other fuel approved by concerned SPCBs/PCCs. After generation of pyro gas, the same is to be used for the purpose of heating reactor. The flue gas should be vented out into the environment through alkaline scrubber with mist eliminator attached with a chimney of at least 30 meters height. Plants to install adequate air pollution control devices (APCDs) for controlling flue gas emissions.
2.5.5	A compressor or any other suitable arrangement has to be made /installed for mixing of air with pyro water for ensuring proper burning while using pyro water/purge water during initial heating.
2.5.6	In order to control fugitive emissions from the reactor during operation, proper sealing should be ensured.
2.5.7	Excess pyro gas if any should be flared through properly designed flaring system of adequate capacity considering the emergency situation in which the entire gas may have to be flared. The flaring should be done at a minimum height of 30 m.
2.5.8	The collection of the oil from the condensers should be in a closed vessel and storage also should be in closed tanks with suitable vents. There should be no manual handling of oil. Transfer of oil should be through pumps.
2.5.9	The removal of char should be through a mechanized system. The unloading of char from the reactor is to be done under controlled conditions through a pneumatic /screw conveyor system in such a manner that the contents of the reactor are not open to the atmosphere at any point of time. The end of the conveyor system shall be attached to a bagging plant where all the char will be bagged in the HDPE bags with proper sealing. It should be ensured that no spillage taken place during the collection of the char in the bags. Moreover, an air-lock should be provided to ensure no entry of air into the reactor.

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2.5.10	Water sprinklers to be installed at the transfer points for arresting fugitives.
2.5.11	The char generated in the process shall be utilized either in co-processing in the cement industry or its quality be upgraded to Recovered Carbon Black (RCB). RCB may be used as raw material for manufacture of new tyre and other processes.
2.5.12	Waste water (Pyro water/Purge water/Oil mixed water/oil water emulsion) generated during the process should not be discharged anywhere and:

i)	Should be treated in suitable ETP of sufficient capacity. Oily sludge should be disposed through TSDF or can used to make char briquettes, for subsequent transfer /sale to the cement manufacturing plants or other such industries having authorization for co – processing or;
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- a. ETP discharge may be used for briquettes manufacturing. The briquettes so manufactured shall be disposed through processing in cement kiln
- b. ETP sludge may be used for briquettes manufacturing. The briquettes so manufactured shall be disposed through processing in cement kiln.

ii)	Pyro water/Purge water /Oil mixed water/oil water emulsion may be used for briquettes manufacturing in a briquetting plant by mixing it with sawdust and char in suitable proportions. These briquettes so manufactured using the pyro water/purge water/oil mixed water/oil water emulsion and char are to be utilized only in processes where temperature is 1000 °C or more to avoid emissions of obnoxious gases; or
iii)	Pyro water/Purge water/ oil mix water/oil water emulsion should be used for Initial heating of the reactor.

2.5.13	TPO Units to ensure that treated water be re-used in the unit itself & there is zero effluent discharge.
2.5.14	The transportation of Char and Tyre Pyrolysis Oil (TPO) should strictly be done in closed vehicles to ensure that there is no spillage of char or oil during their transportation.
2.5.15	The generation, transportation and disposal of char to the cement manufacturing plants shall be recorded
2.5.16	The Tyre Pyrolysis Oil (Product) and char shall be stored in areas separate / distinct from the processing area (shed where the reactors are installed). Tyres shall be stored in earmarked sheds/open area on a raised cement concrete platform.

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2.5.17	The unit should carry out stack and ambient air quality monitoring for SO ₂ , PM, and CO at least once in six months from a recognized laboratory at identified monitoring location. The unit will maintain a log book for recording the plant operation, monitoring of the stack emissions and ambient air quality, generation & utilization of wastewater & sale of products and wastes.
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B. Safety Measure to be adopted

2.5.18	Automatic control systems such as Programmed Logic Control (PLC) shall be adopted for measurement and control of temperature and pressure along with safety interlocks in case of increase of temperature or pressure to cut off heating of the reactor should be provide.
2.5.19	A sensor for CO gas to be installed in the working area to ensure that concentration of CO in the working area does not exceed the prescribed limits for occupational safety and health as per Factory Act 1948. It will also be coupled with a warning/alarm system so that the plant operator can take adequate steps to rectify the situation.
2.5.20	Sensors along with alarm system should be provided at all the transfer points throughout the plant to detect any leakage of flammable vapors from the system.
2.5.21	Excess pyro gas if any should be flared through properly designed flaring system of adequate capacity considering the emergency situation in which the entire gas may have to be flared. The flaring should be done at a minimum height of 30 meters.
2.5.22	Fire detectors, sprinklers and fire hydrant with necessary pumping system and water storage should be provided in the process area, product and raw material storage area.
2.5.23	The TPO unit shall possess fire clearance certificates issued by concerned departments.
2.5.24	The safety instruction for safe operation of plant will be displayed at the gate, plant working area and other critical places. Further, training will be imparted to the workers for safe operation of these plants. On site emergency plan, as per the requirements under the Factories Act, 1948, will be made and implemented to handle any accident, fire/ leakage or any other emergency situation. All such measures shall include raw material storage, product storage and handling thereof.
2.5.25	The plant will be operated under the continuous supervision of a qualified person having experience of running such units. All the persons/workers in the premises should wear an air filter mask to avoid inhaling of the fine char particles.
2.5.26	Units will maintain good house-keeping and will ensure that no raw material products and wastes get spilled inside or outside the plant.

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2.5.27	Units to carry out annual health check-up of all the employees working in the unit & submit its report to concerned SPCBs /PCCs on annual basis.
2.5.28	Units operators shall have insurance cover for workers, plant & machinery and materials.
2.5.29	Workers should be given mock drill exercise for fire hazard incident.

C. General conditions applicable to all plants (Batch & Continuous):

2.5.30	The Tyre Pyrolysis Units (Continuous and Advanced Batch Automated Pyrolysis) are categorized into Orange category. Unit to register on the Waste Tyre EPR Portal of CPCB.
2.5.31	The Tyre Pyrolysis Oil unit to fulfill fuel quality as specified by Ministry of Petroleum and Natural Gas / Bureau of Indian Standards as and when the same gets notified.
2.5.32	In line with the policy adopted by MoEF&CC, Unit shall not to import waste tyres for the purpose of TPO production. Unit to use only indigenous generated waste tyre (i.e. Waste tyre generated in India only). Also unit to sell its products to Actual Users only.
2.5.33	Unit to maintain record on consumption of waste tyre along with details of its procurement source, Details & quantity of products, details of actual users to whom products have been sold.
2.5.34	Unit to submit its annual report on the EPR Portal and also to the concerned SPCB providing details on annual production of TPO, Char, Steel & other products including details of sources of purchasing waste tyre and also details of actual users to whom products have been sold within the time frame as prescribed on the Portal. The annual report to be supported with electricity bills of the financial year for which annual return has been submitted.
2.5.35	Units have to report daily waste generation, disposal data on National Hazardous Waste Tracking system as and when such system gets implemented by CPCB.

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Anand Kumar

Implementation of Revised Standard Operating Procedure (SOP) for Recycling of Waste Tyre Scrap for the Recovery of Tyre Pyrolysis Oil, Pyro Gas, Steel and Char in Tyre Pyrolysis Oil (TPO) Units

From : Anand Kumar <wm3.cpcb@gov.in> Fri, Jan 19, 2024 12:22 PM

Subject : Implementation of Revised Standard Operating Procedure (SOP) for Recycling of Waste Tyre Scrap for the Recovery of Tyre Pyrolysis Oil, Pyro Gas, Steel and Char in Tyre Pyrolysis Oil (TPO) Units  1 attachment

To : Pentani Jagan <cpcb.bhopal@gov.in>, J Chandra Babu <jcb.cpcb@nic.in>, CPCB RD LUCKNOW <rdlucknow.cpcb@gov.in>, D K Soni <dksoni.cpcb@nic.in>, Mrinal Kanti Biswas <mkbiswas.cpcb@nic.in>, PRASOON GARGAVA <prasoon.cpcb@nic.in>, H D VARALAXMI SEE CPCB <vlaxmi.cpcb@nic.in>, Pratik Bharne <pratik.cpcb@gov.in>, gurnam <gurnamsingh.cpcb@nic.in>, zoshillong.cpcb <zoshillong.cpcb@nic.in>, CPCB Project Office Agra <poagra.cpcb@nic.in>

Cc : Anand Kumar <anand.cpcb@nic.in>, TARUN DARBARI <tarundarbari.cpcb@gov.in>, MEETU PURI <mpuri.cpcb@nic.in>

Sir/Madam,

Please find attached the revised Standard Operating Procedure (SOP) for Tyre Pyrolysis Oil (TPO) units. The revised SOP has been approved by the Chairman, CPCB.

Central Pollution Control Board has revised the existing Standard Operating Procedure (SOP) for Tyre Pyrolysis Oil (TPO) units after conducting an extensive study of seven (07) TPO units comprising of three (03) existing Batch TPO units and one (01) continuous tyre pyrolysis unit under the guidance of expert committee comprising of experts from NEERI and IIT Delhi. The findings of the study carried out by SPCBs in seventy (70) TPO units were also incorporated into the SOP.

You are requested to implement the revised SOP for TPO units.

Thanks & Regards,

WM -III Division,
Central Pollution Control Board
e-mail Id - wm3.cpcb@gov.in



SOP for Tyre Pyrolysis Oil Unit (Revised).pdf
10 MB

Action response regarding the NGT Matter of the OA-400/2019 & EA 39/2023 with respect to the recent NGT order dated 19/01/2024.

From : TARUN DARBARI <tarundarbari.cpcb@gov.in> Fri, Feb 23, 2024 07:23 PM
Subject : Action response regarding the NGT Matter of the OA-400/2019 & EA 39/2023 with respect to the recent NGT order dated 19/01/2024. 1 attachment
To : unit4-e1@appcb.gov.in, tasrifa nasim <tasrifa.nasim@gmail.com>, hwm@pcbassam.org, hocecb@gmail.com, uh-gpcb-hazw@gujarat.gov.in, hspcbhazardouswaste@gmail.com, manhasrandeep@gmail.com, manjukumari923@gmail.com, kspcbhooe5@gmail.com, dkjain51@yahoo.com, robmw@mpcb.gov.in, psrouta@ospcbboard.org, seehq3@gmail.com, swmc rpcb <swmc.rpcb@gmail.com>, ACEE ONE TNPCB <acee1chn@tnpcb.gov.in>, Ravidas Kothuri <ee1-uh4-tspcb@telangana.gov.in>, mittallittla@gmail.com, pradeepjoshi67@gmail.com, vpyog@rediffmail.com, ceo1@uppcb.in
Cc : Pentani Jagan <cpcb.bhopal@gov.in>, J Chandra Babu <jcb.cpcb@nic.in>, D K Soni <dksoni.cpcb@nic.in>, Mrinal Kanti Biswas <mkbiswas.cpcb@nic.in>, PRASOON GARGAVA <prasoon.cpcb@nic.in>, H D VARALAXMI SEE CPCB <vlaxmi.cpcb@nic.in>, Pratik Bharne <pratik.cpcb@gov.in>, gurnam <gurnamsingh.cpcb@nic.in>, zoshillong.cpcb <zoshillong.cpcb@nic.in>, CPCB Project Office Agra <poagra.cpcb@nic.in>, Anand Kumar <anand.cpcb@nic.in>, MEETU PURI <mpuri.cpcb@nic.in>, Riya Soni <riyasoni.cpcb@gov.in>, Shamsher Thakur <shamsherthakur.cpcb@gov.in>

Sir/Madam,

CPCB has conducted a meeting through VC on 23.02.2024 regarding the NGT Matter of the OA-400/2019 & EA 39/2023 with respect to the recent NGT order dated 19/01/2024. The meeting was focused on order of Hon'ble NGT with regard to utilization of Tyre Pyrolysis Oil (TPO) as a fuel by industries and its consideration as 'Approved Fuel' under the Air (Prevention and Control of Pollution) Act, 1981.

In this regards, it is hereby requested to kindly provided the following details:

- I. Total and unit-wise quantity of Tyre Pyrolysis Oil generated.
- II. Details of the industries where TPO is used as fuel.
- II. Status of TPO fuel whether approved or permitted.

The copy of the said order has been attached for your reference.

It is thereby requested to send the details by 01.03.2024 on ewaste2.cpcb@gov.in, anand.cpcb@nic.in & tarundarbari.cpcb@gov.in

154

With Regards
Tarun Darbari
Scientist-E
WM-III, CPCB
Delhi-32



NGT order 19.01.2024.pdf

1 MB

155

File No. CP-22/139/2021-WM-III-HO-CPCB-HO-Part (2)

March 20, 2024

To,

11043-11087

The Member Secretary
(All SPCBs/PCCs)

Subject: Standard Operating Procedures (SOPs) for "Recycling of waste tyre scrap for the recovery of tyre pyrolysis oil, pyro gas, and char in tyre pyrolysis oil (TPO) units"- Regarding implementation of SOP

Sir,

In the matter of OA No. 400 of 2019 before the Hon'ble NGT, PB - New Delhi, regarding management of waste tyres, the Hon'ble NGT, vide its order date 07/11/2022, directed CPCB for revision of the existing SOP for the tyre pyrolysis oil unit. In compliance, CPCB has revised SOP for 'Recycling of waste tyre scrap for the recovery of tyre pyrolysis oil, pyro gas and char in tyre, pyrolysis oil (TPO) units'. The SOP was circulated to all SPCBs/PCCs vide email dated 19.01.2024 for its implementation and a copy is also enclosed for ready reference.

In view of the observations of Hon'ble NGT (PB) in its order dated 19-01-2024 followings are required to be carried out by SPCBs/PCCs-

1. Implementation of revised SOP of TPO;
2. Ensuring Zero Liquid Discharge (ZLD) and general gaseous emission standards while issuing Consent to Establish & Operate under the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981.

Encl.: As above

Yours faithfully,

Anand Kumar
(Anand Kumar)
Director & D.H.
WM-III Division

Copy to:

- i. All Regional Directorates, CPCB : For Information and n/a, please

Anand Kumar
(Anand Kumar)
20/03/2024

o/c

156

F.No. B-29016/1(NGT)/24-25/WM-III Division

April 29, 2025

929-973

To

The Chairman
All SPCBs/PCCs
(As per list)

Sub: Directions under Section 5 of the Environment (Protection) Act, 1986 regarding compliance of revised SOPs for "Recycling of Waste Scrap for the recovery of Tyre Pyrolysis Oil, Pyro Gas and Char in Tyre Pyrolysis Oil (TPO) Units" - reg.

WHEREAS, the Ministry of Environment, Forests & Climate Change, Government of India (herein after referred as MoEF&CC) has notified the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 under the Environment (Protection) Act, 1986, for proper management and handling of Hazardous wastes; and

WHEREAS, MoEF&CC, vide Notifications No. S.O. 157(E) of February 27, 1996 and S.O. 730 (E) dated July 10, 2002, has delegated the powers under Section 5 of the Environment (Protection) Act, 1986 (29 of 1986) to the Chairman, Central Pollution Control Board (herein after referred to as CPCB), to issue directions to any industry or any local or any other authority for the violation of the standards and rules, notified under the Environment (Protection) Act, 1986 and amendments thereof; and

WHEREAS, MoEF&CC vide Notification No. G.S.R. 593(E) dated July 21, 2022 notified the Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2022. In the said amendments, Schedule-IX has been inserted for Utilization & Management of Waste Tyre; and

WHEREAS, Rule 10 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 stipulates that the Ministry of Environment, Forest and Climate Change or the Central Pollution Control Board may issue guidelines or standard operating procedures for environmentally sound management of hazardous and other wastes from time to time; and

WHEREAS, Para 4(5) of the Schedule-IX of the Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2022 states that the Central Pollution Control Board shall specify the standard operating procedure strictly in accordance with the provisions of this Schedule; and

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WHEREAS, as per the order dated 25.10.2021 passed by Hon'ble NGT in the matter of OA 400 of 2019 regarding Management of Waste Tyre, CPCB revised SOPs for "Recycling of Waste Tyre Scrap for the recovery of Tyre Pyrolysis Oil, Pyro Gas and Char in Tyre Pyrolysis Oil (TPO) Units" on January 16, 2024. The revised SoP stipulates the concept of Advanced Batch Automated Process (ABAP) for the improvement in Environmental Performance of the Tyre Pyrolysis Oil Units. As per the revised SOPs, the TPO Unit having cumulative maximum batch capacity up to 60 tonnes per day (TPD) only be allowed within a premises and this is applicable for new ABAP type Units /expansion in existing batch type TPO Unit. Further, beyond the cumulative batch capacity of 60 TPD, only continuous process type TPO unit be allowed in case of setting up of new ABAP type units or expansion in existing TPO Unit in a single premises; and

WHEREAS said revised SoP stipulates that from the study carried out by CPCB, it was observed that Advanced Batch Automated Process (ABAP) and continuous tyre pyrolysis process had no significant impact on ambient air quality. Therefore, for standardizing the batch type pyrolysis operations, Advanced Batch Automated Process (ABAP) type TPO Unit shall only be allowed; and

WHEREAS, as per the afore-said revised SoP, the ABAP type of TPO units is required to have Programmable Logic Controller (PLC) based control arrangement, bypass arrangement for pyro gas from reactor door to primary condenser, installation of gas sensors, pressure, temperature gauges at reactor & storage tank, gas /fire alarm system, system for flaring of entire pyro gas during emergency, arrangement for re-circulation of pyro gas for reactor's heating, provision for flaring of pyro gas, suction hoods over the gate of reactor and char bagging area, water sprinkler system and mechanized arrangement for removal of char and steel scrap and arrangement of Nitrogen gas (N) purging to address environmental and safety concerns; and

WHEREAS, the revised guidelines were circulated to SPCBs/PCCs for its implementation by CPCB vide email dated 19.01.2024 and 20.03.2024. Further CPCB vide its letter No. CP-22/139/2021-HO-CPCB-HO Part (2) dated March 20, 2024 has again asked SPCBs/PCCs to implement the revised SOP of TPO; and

WHEREAS, it has been observed that SPCBs/PCCs are yet to send compliance report of the aforesaid communications made by CPCB; and

Now, THEREFORE, in exercise of the powers vested under the Section 5 of the Environment (Protection) Act, 1986, it is therefore directed herewith to:

- (i) Ensure implementation of Revised SOPs for "Recycling of Waste Scrap for the recovery of Tyre Pyrolysis Oil, Pyro Gas and Char in Tyre Pyrolysis Oil (TPO) Units" dated 16-01-2024
- (ii) Immediately submit compliance status on verification of TPO Units operating in your State/UT including actions taken in accordance with aforesaid communications dated 19/01/2024 and 20/03/2024 made by CPCB.
- (iii) Ensure at least yearly compliance verification of TPO Units as TPO units are under orange category and submission of compliance report to CPCB.

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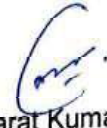
You are also hereby directed to take necessary action for compliance of the aforesaid directions and submit the action taken report to this office within 15 days of receipt of this directions.


(Amandeep Garg)
Chairman

Copy to:

- (i) All Regional Directorate, CPCB : For kind information and follow-up (As per list)
- (ii) IT Division, CPCB : For uploading on the CPCB's website




+ (Bharat Kumar Sharma)
Member Secretary