

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
Principal Bench, New Delhi

In  
Execution Application No. 39/2023  
In  
Original Application No. 400/2019

Social Action for Forest & Environment (SAFE)  
Union of India

Versus

Applicant

Respondent

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*Anand Kumar*  
(Anand Kumar)

Scientist 'F'  
Central Pollution Control Board  
Delhi-110032

Place- Delhi  
Date- 20.03.2024

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL PRINCIPAL  
BENCH AT NEW DELHI

EXECUTION APPLICATION NO. 39 OF 2023

IN

ORIGINAL APPLICATION NO. 400 OF 2019

Social Action for Forest & Environment (SAFE)

Applicant

VS

Union of India

Respondent

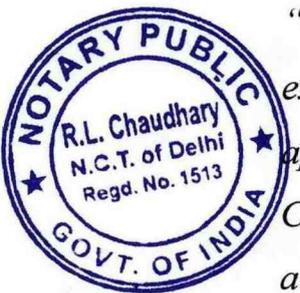
**Response on behalf of CPCB in compliance to Hon'ble NGT order dated 19.01.2024 in the matter of OA 400/2019 and EA 39/2023 (Social Action for Forest & Environment (SAFE) Vs Union of India & Ors.**

**MOST RESPECTFULLY SUBMITTED AS UNDER:-**

**1.0 Background:**

The matter under consideration is management of Waste Tyres. The Hon'ble NGT-PB-New Delhi while disposing the matter on 07.11.2022 directed for the following:

*"we direct that non-compliant units be closed till compliance expeditiously. CPCB may finalize the classification of the units so that application norms can be enforced. Revised SOP may be finalized by the CPCB and MoEF&CC in light of discussion in today's hearing and above observations within one month. SOP may also provide for certifying the fuel quality standards of pyro-oil as per norms of the Petroleum Ministry."*



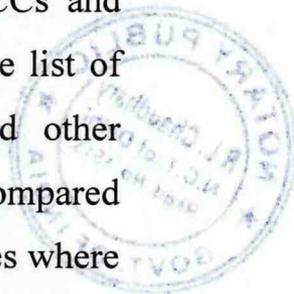
The petitioner submitted execution application (EA No 39/2023) before the Hon'ble NGT-PB New Delhi and was listed on 07.11.2023. The Hon'ble NGT in its directions dated 07.11.2023 directed CPCB to file its reply. In compliance CPCB filled reply on the Execution Application submitted by the petitioner and provided details of all the action taken by CPCB in compliance of directions dated 07.11.2022 where CPCB informed on existing compliance status of Tyre Pyrolysis Oil (TPO) units in the country. CPCB also apprised on revised SOPs on "Recycling of Waste Tyre Scrap for the Production of Tyre Pyrolysis Oil (TPO) in Tyre Pyrolysis Oil (TPO) Units" which has been prepared based on the outcomes of 07 studies carried out by CPCB, 70 dry studies carried out by SPCBs, and suggestions made by the petitioner and stakeholders. SOPs were finalized in consultation with the expert members from NEERI & IIT Delhi. The matter was last heard on 19.01.2024 where discussion was done on the revised SOPs. The Hon'ble NGT vide its order dated 19.01.2024 directed:

*"The response filed by CPCB, reveals that Tyre Pyrolysis Oil (TPO) unit have been classified as 'Orange' category and will be operating as Zero Liquid Discharge (ZLD) mode and required to meet general gaseous emission standards. However, SOP does not lay emphasis on directing PCBs and PCCs to incorporate ZLD and emission standards in granting CTO. Further, the SOP does not clarify about utilization of TPO as fuel by industries and its consideration as 'Approved Fuel' under the Air (Prevention and Control of Pollution) Act, 1981"*

## **2.0 Actions taken in compliance of Hon'ble NGT order dated 19.01.2022 in the matter of OA No 400 of 2019 and EA 39/2023**

- The revised SOP was circulated to all SPCBs/PCCs vide email dated 19.01.2024 for its implementation. **(Enclosure - 1)**

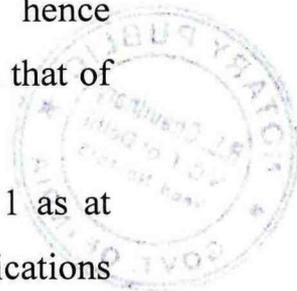
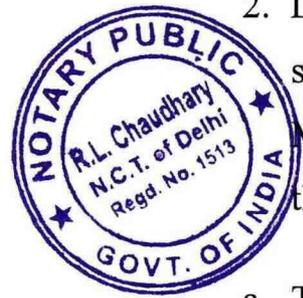
- E-Mail sent on 23-02-2024 to all SPCBs/PCCs for submission of information on quantity of TPO generated, industries using TPO oil and whether TPO is listed as “Approved Fuel” in their respective States. **(Enclosure - 2)**
- As per the response of SPCBs where TPO units exists, TPO is mostly used in aluminum industries, cement industries, furnace, energy sector industries. Further as per the submission TPO is not permitted to be used in Andhra Pradesh, Jammu & Kashmir, Maharashtra, Uttarakhand and Delhi-NCR. Also, the TPO is not listed as approved fuel in any State/UT.
- A meeting through virtual mode convened on 11.03.2024 with Expert Member from NEERI, Oil sector expert (Former Scientist 'F' CSIR-IIP Dehradun), official from MoEF&CC, MoPNG, BIS, SPCBs/PCCs and CPCB to discuss usage of TPO and status of its inclusion in the list of approved fuels as issued by SPCBs/PCCs. The experts and other participants in the meeting were of the opinion that TPO can be compared with furnace oil and can be used as its substitute in those industries where FO has been permitted. It was also observed that TPO has lower carbon number, lower sulphur content and hence emissions (PM and SOx) from TPO are expected to be lower than that of emissions from Furnace oil (FO). Hence, SPCBs/PCCs may consider permitting TPO also in such industries where FO has been permitted and adequate air pollution control system has been installed to meet the specified emission norms. Minutes of the meeting is enclosed. **(Enclosure - 3).**
- Letter sent on 20-03-2024 to SPCBs/PCCs for implementation of revised SOPs and for 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. **(Enclosure - 4)**



- Reminder letter sent on 20-03-2024 to MoPNG and BIS seeking fuel quality specifications for TPO. (**Enclosure - 5**)

**Submission:**

1. Communication has been issued to SPCB's/PCCs for implementation of the 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 and also ensure 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.
2. During the aforesaid meeting held with Expert Member from NEERI, Oil sector expert (Former Scientist 'F' CSIR-IIP Dehradun), official from MoEF&CC, MoPNG, BIS, SPCBs/PCCs and CPCB held on 11/3/2024, the following have emerged:
  - a. TPO has lower carbon number, lower sulphur content and hence emissions (PM and SO<sub>x</sub>) from TPO are expected to be lower than that of emissions from Furnace oil (FO).
  - b. A typical proposed specifications of TPO are given in Table – 1 as at Annexure - II of Enclosure-3. These are typical proposed specifications (value/range) for TPO arrived after discussion among experts. However, firm specifications for TPO are to be developed by BIS.
  - c. TPO can be used in those industries where Furnace Oil (FO) has been permitted. Hence, SPCBs/PCCs may consider permitting TPO also in such industries where FO has been permitted and adequate air pollution control system has been installed to meet the specified emission norms.<sup>3</sup>
3. The above has been concurred by MoEF & CC.



## BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

Principal Bench, New Delhi

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Social Action for Forest &amp; Environment (SAFE)

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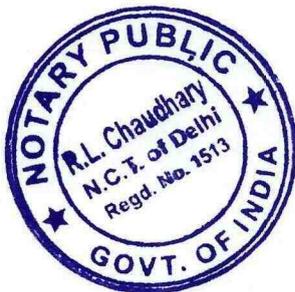
Union of India

Respondent

**AFFIDAVIT**

I, Anand Kumar, Working As Scientist 'F' In Central Pollution Control Board, Office at Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, Delhi- 110032, do hereby solemnly affirm and declare as under:

1. That I am fully conversant with the facts of the case and hence, competent and authorized to depose and swear the present affidavit in my official capacity.
2. That the contents of the annexed reply have been drafted by me and the contents of the same are true and correct on the basis of the record of the case as maintained in the day-to-day affairs of the CPCB and the contents of the short reply may kindly be treated part of this affidavit and the same are not repeated herein for the sake of brevity.



*Anand Kumar*  
DEPONENT

आनंद कुमार / Anand Kumar  
निदेशक/ Director  
केंद्रीय प्रदूषण नियंत्रण बोर्ड  
Central Pollution Control Board  
पर्यावरण, वन एवं जलवायु परिवर्तन विभाग, भारत सरकार  
(Mo Environment, Forest & Climate Change, Govt. of India)  
परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली-110032  
Parivesh Bhawan, East Arjun Nagar, Delhi-110032

VERIFICATION

21 MAR 2024

Verified at Nee Delhi on this ..... day of March, 2024 that the contents of the above reply affidavit are correct and true on the basisof the record of the case as maintained in the day-to-day affairs of the CPCB. Nothing has been concealed therefrom or mis-stated.

Anand Kumar  
DEPONENT

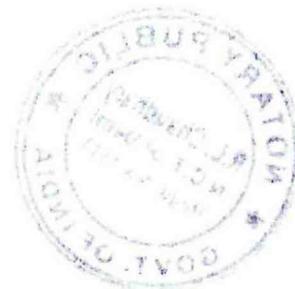


आनंद कुमार / Anand Kumar  
निदेशक/ Director  
केंद्रीय प्रदूषण नियंत्रण बोर्ड  
Central Pollution Control Board  
पर्यावरण, वन एवं जलवायु परिवर्तन विभाग, भारत सरकार  
(Min. of Environment, Forest & Climate Change, Govt. of India)  
परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली-110032  
Parivesh Bhawan, East Arjun Nagar, Delhi-110032

ATTESTED

*[Signature]*  
NOTARY PUBLIC  
GOVT. OF INDIA

21 MAR 2024



आनंद कुमार / Anand Kumar  
निदेशक/ Director  
केंद्रीय प्रदूषण नियंत्रण बोर्ड  
Central Pollution Control Board  
पर्यावरण, वन एवं जलवायु परिवर्तन विभाग, भारत सरकार  
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परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली-110032  
Parivesh Bhawan, East Arjun Nagar, Delhi-110032

Email

MEETU PURI

**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 &amp; Regards,

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



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

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Email

MEETU PURI

**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, kspcbhoe5@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](mailto:ewaste2.cpcb@gov.in), [anand.cpcb@nic.in](mailto:anand.cpcb@nic.in) & [tarundarbari.cpcb@gov.in](mailto:tarundarbari.cpcb@gov.in)

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



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 **NGT order 19.01.2024.pdf**  
1 MB

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**Minutes of the meeting held on 11.03.2024 for discussion on the  
Hon'ble NGT matter OA No. 400/2019 and EA 39/2023.**

A meeting was convened with Expert member from CSIR-NEERI, Nagpur, Oil sector expert (Former Scientist 'F' CSIR-IIP Dehradun), official from MoEF & CC, MoPNG, BIS, SPCBs/PCCs and CPCB for utilization of tyre pyrolysis oil (TPO) in industries and its consideration as approved fuel in compliance of the directions dated 19-01-2024 issued by the Hon'ble NGT in the aforesaid matter. The Hon'ble NGT vide its directions dated 19.01.2024 has directed for ensuring compliance of Revised SOPs w.r.t Recycling of Waste Tyre in the Tyre Pyrolysis Units. In the same order, the Hon'ble NGT has also sought clarification regarding the use of Tyre Pyrolysis Oil (TPO) by Industries and its consideration as "Approved Fuel" under the Air (Prevention & Control of Pollution) Act 1981. The list of participants is enclosed in Annexure-I. The agenda of the meeting was as below:

**Agenda:** Utilization of tyre pyrolysis oil (TPO) in Industries and its consideration as "Approved Fuel".

Followings are the record of discussion:

- A presentation on characteristic of TPO such as Acidity on Burning Tip, Ash Content, Conradson Carbon Residue, Calorific Value, Density, Flash Point, Kinematic Viscosity, Sediments, Sulphur Content, Water Content, and Pour Point as obtained from samples of TPO collected during studies conducted by CPCB was made. The characteristics of TPO were compared with Furnace Oil, Diesel, & waste oil derived fuel.
- Expert from oil sector observed that characteristics of TPO are somewhat better than furnace oil characteristics except for the flash point which was found to be 30, 52, 54, 68 and 73 °C in different samples. It is well known that that flash point is of concern during transportation, handling and storage of any fuel.
- Expert from NEERI also observed that TPO can be compared with furnace oil and can be used as its substitute.
- It has been observed that TPO has lower carbon number, lower sulphur content and hence emissions (PM and SO<sub>x</sub>) from TPO are expected to be lower than that of emissions from Furnace oil (FO).
- Based on analysis report of different samples a typical proposed specification of TPO are given in Table – 1 as at Annexure - II
- SPCBs /PCCs officials present in the meeting informed that TPO is not listed as approved fuel.
- BIS representative informed that they have conceived a project on the development of TPO fuel quality standards. However, the project is at a very nascent stage. BIS asked CPCB to share the results of TPO analysis.
- The experts and other participants in the meeting were of the opinion that TPO can be used in those industries where FO has been permitted. Hence, SPCBs/PCCs may consider permitting TPO also in such industries where FO has been permitted and adequate air pollution control system has been installed to meet the specified emission norms.

  
(Anand Kumar)

  
(Dr. G. S. Dang)

  
(Dr. K.V George)

**Annexure-I**

The List of Participants in the meeting held on 11.03.2024 for discussion on the Hon'ble NGT matter OA No. 400/2019 and EA 39/2023.

1. Dr. K. V. George, Chief Scientist & Head, Air Pollution Control Division CSIR-NEERI, Nagpur
2. Dr. Gurbax Singh Dang, Expert Oil Sector (Former Scientist 'F' CSIR-IIP, Dehradun)
3. Dr. Vinod K Singh, Additional Director, MoEF & CC
4. Shri P Somakumar, US (OR-I), MoPNG
5. Ms. Kreeti Das, Deputy Director, BIS
6. Shri Anand Kumar, Scientist 'F', Divisional Head, WM-III, CPCB
7. Officials of CPCB HQ
8. Officials of CPCB Regional Directorates
9. Representatives from SPCBs /PCCs

Table - 1

Typical Proposed Tyre Pyrolysis Oil Specification

S.No.	Parameter*	Value/Range
1.	Ash Content, %wt.	0.1 Max.
2.	Conradson Carbon Residue, % wt.	Less than 4
3.	Calorific Value, Kcal/kg	8500 Min.
4.	Density, Kg/L	0.90 - 0.95
5.	Flash Point, °C	50 Min.
6.	Kinematic Viscosity @40°C, cSt	4 - 6
7.	Sediments, %wt.	0.01 Max.
8.	Sulphur Content, % wt.	1 Max.
9.	Water Content, % wt.	0.5 Max
10.	Pour Point, °C	Less than 0
11.	Carbon Number	C <sub>5</sub> - C <sub>30</sub>
12.	Boiling Rang, °C	35 to 350

**Note:** \*These are typical specifications (value/range) for TPO arrived after discussion among experts. However, firm specifications for TPO are to be developed by BIS.

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 it's 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*  
20/03/2024  
(Anand Kumar)  
Director & D.H.  
WM-III Division

Copy to:

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

*Anand Kumar*  
20/03/2024  
(Anand Kumar)

*o/c*

F. No. B-29016/1(NGT)/400(19)/23-24/WM-III Div.

11031

March 20, 2024

To

The Head of Department  
 Petroleum, Coal & Related Products Department  
 Bureau of Indian Standards, Manak Bhawan  
 9, Bahadur Shah Zafar Marg, ITO  
 New Delhi 110002

**Sub: In the NGT matter of OA 400/2019, SAFE Vs Uoi & Ors- Regarding compliance of NGT order dated 07.11.2022 & 19.01.2024 in the said matter.**

Sir,

In the NGT matter of OA 400 of 2019 before PB-New Delhi, CPCB vide its letter of even number dated 13.12.2023 requested BIS to provide details on fuel quality specification of Tyre Pyrolysis Oil (TPO) for regulating its usage in the industrial processes. A copy of letter is enclosed for ready reference. The response of BIS in the said context is still awaited.

The matter was last heard on 19.01.2024, where the Hon'ble NGT issued directions (Copy enclosed for ready reference) seeking clarification about utilization of TPO as fuel by industries. Hence, it is again requested to kindly provide fuel quality specifications of TPO. The matter is next listed on 22.03.2024.

Yours faithfully,

Anand Kumar  
 20/03/2024

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

Encl.: As above

o/c

केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
 निर्गत.....  
 तिनांक..... 20/03/24

F. No. B-29016/1(NGT)/400(19)/23-24/WM-III Div. 11030

March 20, 2024

To

Shri Sunil Kumar  
 Joint Secretary (Refinery Division)  
 Ministry of Petroleum & Natural Gas(MoPNG),  
 Room No. 216-A  
 Shastri Bhawan, New Delhi - 110001

**Sub: In the NGT matter of OA 400 of 2019, SAFE Vs Uol & Ors- Regarding compliance of NGT order dated 07.11.2022 & 19.01.2024 in the said matter.**

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The matter was last heard on 19.01.2024, where the Hon'ble NGT issued directions (Copy enclosed for ready reference) seeking clarification about utilization of TPO as fuel by industries. Hence, it is again requested to kindly provide fuel quality specifications of TPO. The matter is next listed on 22.03.2024.

Yours faithfully,

*Anand Kumar*  
 20/03/2024  
 (Anand Kumar)  
 Director & D.H.  
 WM-III Division

केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
 निर्गत.....  
 दिनांक..... 20/03/24

Encl.: As above

*o/c*

F. No. B-29016/1(NGT)/400(19)/23-24/WM-III Div. 11031

March 20, 2024

To

The Head of Department  
Petroleum, Coal & Related Products Department  
Bureau of Indian Standards, Manak Bhawan  
9, Bahadur Shah Zafar Marg, ITO  
New Delhi 110002

**Sub: In the NGT matter of OA 400/2019, SAFE Vs Uoi & Ors- Regarding compliance of NGT order dated 07.11.2022 & 19.01.2024 in the said matter.**

Sir,

In the NGT matter of OA 400 of 2019 before PB-New Delhi, CPCB vide its letter of even number dated 13.12.2023 requested BIS to provide details on fuel quality specification of Tyre Pyrolysis Oil (TPO) for regulating its usage in the industrial processes. A copy of letter is enclosed for ready reference. The response of BIS in the said context is still awaited.

The matter was last heard on 19.01.2024, where the Hon'ble NGT issued directions (Copy enclosed for ready reference) seeking clarification about utilization of TPO as fuel by industries. Hence, it is again requested to kindly provide fuel quality specifications of TPO. The matter is next listed on 22.03.2024.

Yours faithfully,

Anand Kumar  
20/03/2024

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

Encl.: As above

c/c

केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
निर्गत.....  
दिनांक..... 20/03/24

Item No. 10

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

Execution Application No. 39/2023  
In  
Original Application No. 400/2019

Social Action for Forest & Environment (SAFE) Applicant

Versus

Union of India Respondent

Date of hearing: 19.01.2024

**CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON  
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER  
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Applicant: Mr. Sanjay Upadhyay, Ms. Saumitra Jaiswal, Ms. Gitanjali Sanyal & Ms. Arushi Malik, Advs. for Applicant in E.A 39/2023

Respondent: Mr. Raj Kumar, Adv. for CPCB  
Dr. Swati Jindal Garg, Ms. Soumya China & Mr. Kunal Kakumanu, Advs. for MoEF & CC

**ORDER**

1. By this Execution Application, applicant is seeking compliance of the order dated 07.11.2022 passed in OA No. 400/2019. In that OA, the issue of absence of proper management of End-of-Life Tyres/Waste Tyres (ELTs) in accordance with the existing provisions was raised. The OA was disposed of by order dated 07.11.2022 by directing the closure of the non-compliant units and further directing the CPCB to finalize the classification of units so that the application norms can be enforced, finalize the revised SOP by the CPCB and MoEF&CC in light of discussions before the Tribunal and that the SOP may also provide for certifying the fuel quality standards of pyro-oil as per norms of the Petroleum Ministry.

2. In the present Execution Application, reply on behalf of the respondent no. 1, Central Pollution Control Board has been filed disclosing the action taken by the CPCB as under:-

“

- A. *That in pursuance to the directions issued by the Hon'ble NGT on 07-11-2022 in OA no.400/2019, for classification of Tyre Pyrolysis Units (TPO), the issue of classification of TPO units was placed before CPCB's Committee on "Classification of Industrial Sectors into Red, Orange, Green & White Categories". That after detailed deliberation, the committee has **classified TPO units into Orange Category**. CPCB has conveyed to all the SPCBs/PCCs regarding adoption and implementation of uniform categorization for TPO units vide its letter dated 30.11.2023. The copy of letter of CPCB dated 30-11-2023 to all SPCBs/PCCs is annexed as **ANNEXURE-I**.*
- B. *That CPCB vide its letter dated 21.12.2022 has written to all SPCBs/PCCs seeking Action Taken Report (ATR) in compliance of the Hon'ble NGT order dated 07-11-2022. The copy of letter dated 21-12-2022 is annexed as ANNEXURE-II.*
- C. *That CPCB revised existing Standard Operating Procedures (SOPs) for Tyre Pyrolysis Oil (TPO) Units after conducting extensive study of seven (07) Tyre Pyrolysis Oil Units (TPO) Units comprising of three (03) advance batch automated tyre pyrolysis units, 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. Findings of study carried out by SPCBs in 70 TPO units were also incorporated. That the suggestions made by the petitioner & directions issued by the Hon'ble NGT vide its order dated 07-11-2022, were included. The Standard Operating Procedures (SOPs) were placed in public domain on the website of the CPCB <chrome-extension://efaidnbnmnribpcajpcglclefindmkaj/https://cpcb.nic.in/openpdffile.php?id=TGF0ZXNORmlsZS8zNTZfMTY2Njg1NzQ1M19tZWRpYXBob3RvNzY3NS5wZGY=> vide dated 27-10-2022 for seeking comments and the relevant comments have been incorporated in the OPs. The SOP after incorporating comments of the stakeholder was further sent to expert for their comments. After incorporating their comments the SOP has been approved by the competent authority CPCB. The approved revised SOP is placed in public domain on the web site of CPCB at the following URL: <https://cpcb.nic.in/openpdffile.php?id=TGF0ZXNORmlsZS80MDVfMTcwNTQwNDg0M19tZWRpYXBob3RvMTI4MjIucGRm> and also sent to SPCBs/PCCs for implementation. The revised SOP has been forwarded to MoEF & CC and seen by them. The copy of revised SOPs is annexed as **ANNEXURE-III**.*
- D. *That the CPCB vide its letter dated 30-11-2023 has once again written to all SPCBs/PCCs for seeking status of compliance of the directions dated 07-11-2022 of the Hon'ble*

NGT. The CPCB also provided format for the compliance report to the SPCBs/PCCs. That the CPCB has received the compliance reports from 36 SPCBs/PCCs. The copy of letter dated 30-11-2023 sent to SPCBs/PCCs is annexed as **ANNEXURE-IV**. The copy of compliance reports of 36 SPCBs/PCCs has been compiled by CPCB. SPCBs/PCCs in their report has reported that there are presently 736 tyre pyrolysis oil (TPO) unit, out of which 513 units are complying, 134 are non-complying and 89 Units are self-closed. Out of 134 non-complying units, 91 has been closed by the respective SPCB/PCC, and actions have been initiated/under process against remaining 43 non-complying units. The compliance in the TPO units have improved as compared to previous report dated 05-11-2022 where only 349 units were found complying and 216 unit was found non complying out of 757 TPO units. The compliance reports have been compiled and annexed as ANNEXURE-V.

- E. That in pursuance to the directions issued by the Hon'ble NGT on 07.11.2022 for certifying the fuel quality standards of pyro-oil as per norms of the Petroleum Ministry, CPCB vide its letter dated 13-12-2023 has written to both Bureau of Indian Standards (BIS) & Ministry of Petroleum & Natural Gas (MoPNG) for providing Fuel Quality specifications of Tyre Pyrolysis Oil. As per information available with CPCB, BIS has initiated a project on development of fuel quality specification for TPO and study will take approximate one year. CPCB in its SOPs has submitted that the Tyre Pyrolysis Oil to fulfil fuel quality as specified by Ministry of Petroleum and Natural Gas / Bureau of Indian Standards as and when the same gets notified. The copy of the letters dated 13-12-2023 written to BIS and MoPNG are annexed as **ANNEXURE-VI**.
- F. That Ministry of Environment, Forest and Climate Change (MoEF&CC), vide its notification No. G.S.R 593(E) dated July 21, 2022 has notified amendments in Hazardous waste rules known as "The Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2022", to include provisions for utilization & management of waste tyre under the Extended Producer Responsibility (EPR) regime as per Schedule-IX inserted through amendments. Under EPR Regime of waste tyre entities such as Producers, Recyclers & Retreaders have been defined and given responsibilities. Provision of an online EPR Portal has been made. As per Para 2 & 3 of the Schedule IX, Producers, Recyclers & Retreaders are required to register themselves on the EPR Portal. As per para 3 (2) no entity can carry out any business without registration on the online EPR Portal. Under the EPR regime, Producers have been given EPR obligations on the basis of new tyre manufactured/ sold or imported by it. Recyclers and Retreaders under the rules are mandated to generate PR Certificates/Retreading Certificate on the EPR portal based on quantity of waste tyre recycled or retreaded by them. Further for fulfillment of EPR obligation, Producers are required to purchase EPR Certificate from registered Recyclers through the portal. The quantity of EPR certificates

*purchased will be adjusted against EPR obligation. A Producer may also buy Retreading certificate for deferment of its EPR obligations, however the obligations will only be considered fulfilled once the Recycling certificates are purchased. Provision for environmental compensation and prosecution for violation of provisions of schedule has been made.*

*The EPR regime has addressed the environmental concerns such as mismanagement of end of life (ELT)/ waste tyre through disposal on landfills or in open as raised by the petitioner in its OA 400/2019. The copy of Hazardous and Other Wastes (Management & Transboundary Movement) Amendment Rules, 2022 is annexed as **ANNEXURE-VII**.*

- G. *That an online Waste Tyre EPR portal has been developed for the management of Waste Tyre under Extended Producer Responsibility (EPR) regime. The portal is available at <https://www.eprtyrespcb.in/>. That as on date the registration of 123 Producers and 114 Recyclers have been granted on the portal.*
- H. *That as per the provisions of the rules, only registered producers, recyclers & retreaders are allowed to carry out their business. The management of Waste Tyre is based on the principle of Extended Producer Responsibility (EPR), where EPR obligations have been assigned to the producers of Tyres. The fulfillment of EPR obligation is through purchase of EPR credits from recyclers of Waste Tyres who are registered at Portal and are carrying out recycling of Waste Tyres in an environmentally sound & scientific manner.*
- I. *That the provisions stipulated in the Schedule-IX under Hazardous and Other Wastes (Management & Transboundary Movement) Amendment Rules, 2022 w.r.t Utilization & Management of Waste Tyres advocated recycling of waste tyre in an environmentally sound manner. The weightage in credit generation has been given to the recyclers on the basis of End Products produced by them. Least weightage has been given to TPO Oil & char for the purpose of credit generation. The rules have prohibited import of Waste Tyres for the purpose of production of Tyre Pyrolysis Oil.*
- J. *CPCB has been carrying out regular interaction meetings with producers and recyclers and also with their association for guidance and for expediting completion of their applications for registration on the Waste Tyre EPR Portal.*
- K. *CPCB has carried out 04 regional interaction meetings with the stakeholders in the month of October 19, 20, 30 & November 20 2023 directing stakeholders to register at Portal and also comply with the provisions as stipulated in the rules. SPCBs were directed for closure of non-complying units.*
- L. *CPCB has done 03 review meetings in the month of November 08, November 22, 2023 & January 12, 2024 and*

*correspondence with SPCBs/PCCs for sensitizing stakeholders to get on-board at the EPR Portal as well as enforcement of the provisions stipulated in the rules including closure of all the non-complying units.”*

3. The response filed by CPCB, reveals that Tyre Pyrolysis Oil (TPO) unit have been classified as ‘Orange’ category and will be operating as Zero Liquid Discharge (ZLD) mode and required to meet general gaseous emission standards. However, SOP does not lay emphasis on directing PCBs and PCCs to incorporate ZLD and emission standards in granting CTO. Further, the SOP does not clarifying about utilization of TPD as fuel by industries and its consideration as ‘Approved Fuel’ under the Air (Prevention and Control of Pollution) Act, 1981.

4. Learned Counsel for the MoEF&CC also seeks three weeks’ time to file the compliance report. CPCB may also file response on the observation made above. It will be open to the Counsel for the applicant to file objections/response to the report submitted by the CPCB and MoEF&CC, at least one week before the next date of hearing by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in) preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF.

5. List this matter on 22.03.2024.

Prakash Shrivastava, CP

Sudhir Agarwal, JM

Dr. A. Senthil Vel, EM

January 19, 2024  
Execution Application No. 39/2023  
In Original Application No. 400/2019  
SN