

**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA
(THROUGH PHYSICAL HEARING WITH HYBRID MODE)**

Original Application No.95/2023/EZ
(Earlier O.A. No.362/2023/PB)

In the matter of:

Laddu Sahni

.....Applicant(s)

Versus

1. Bihar State Pollution Control Board,

Through its Member Secretary,
Parivesh Bhawan, Plot No.NS-B/2,
Patliputra Industrial Area,
Patliputra, Patna (Bihar)-800010;

2. Central Pollution Control Board,

Through its Chairman,
Parivesh Bhawan, East Arjun Nagar,
Delhi-110032;

3. District Magistrate, Muzaffarpur,

District Magistrate Collectorate, Muzaffarpur;

4. Katni Bijlee Utpadan Nigam Limtied, Katni

.....Respondent(s)

Date of hearing: 16.04.2024

**CORAM: HON'BLE MR. JUSTICE B. AMIT STHALEKAR, JUDICIAL MEMBER
HON'BLE DR. ARUN KUMAR VERMA, EXPERT MEMBER**

For Applicant(s) : Mr. Laddu Sahni, in person (in Virtual Mode)

For Respondent(s) : Ms. Amrita Pandey, Advocate for R-1 (in Virtual Mode),
Mr. Dipanjan Ghosh, Advocate for R-2,
Mr. Surendra Kumar, Advocate for R-3 (in Virtual Mode),
Mr. Adarsh Tripathi, Advocate for R-4 (in Virtual Mode)

ORDER

1. The Original Application 362/2023 was registered in the National Green Tribunal, New Delhi Bench on the basis of a letter petition dated 03.02.2023 received from the Applicant-Laddu Sahni.
2. The complainant has stated that Kanti Bijlee Utpadan Nigam Limited (hereinafter referred to as 'proponent') at Kanti, District Muzaffarpur is discharging chemical waste water and coal ash in a

pond at khasra no.1754, area 1450D, causing loss to fish production and environmental damage.

3. It appears that an earlier O.A. No.272/2019, *Satyanarayan Sahni vs. State of Bihar*, was filed which was disposed of by the New Delhi Bench of the Tribunal vide order dated 28.09.2020 which reads as under:-

“1. A report was sought from District Magistrate, Muzaffarpur and Bihar State Pollution Control Board with reference to the allegation of pollution being caused by fly ash dump set up by thermal power plant at Village Kanti Nagar, District Muzaffarpur, Bihar causing damage to the public health, animal health and ecology in the area.

2. The matter was thereafter considered in the light of report dated 21.12.2019 indicating deficiencies in handling of the fly ash by M/s. Kanti Bijlee Utpadan Nigam Limited, Kanti Unit, Muzaffarpur (KBUNL). The Tribunal directed further remedial action and filing of status report.

3. Accordingly, a status report has been filed by the State PCB on 16.07.2020, mentioning the steps taken including the shortening of timeline for performance of certain jobs, in the interest of the environment. The State PCB, to secure performance has sought bank guarantee of Rs. 5 crores.

4. In view of above, let further action be taken by the KBUNL which may be overseen by the State PCB. The application is disposed of.

A copy of this order be forwarded to M/s. Kanti Bijlee Utpadan Nigam Limited, Kanti Unit, Muzaffarpur and the State PCB by e-mail for compliance.”

4. The New Delhi Bench therefore, directed the Bihar State Pollution Control Board to submit Action Taken Report.
5. Thereafter, the case was transferred to the National Green Tribunal, Eastern Zone Bench, Kolkata and re-number as O.A. No.95/2023/EZ. Since Respondents had not been impleaded earlier in the Original Application, therefore, the following were impleaded as Respondents:-

- (1) Bihar State Pollution Control Board, through its Member Secretary,
 - (2) Central Pollution Control Board, through its Member Secretary,
 - (3) District Magistrate, Muzaffarpur, and
 - (4) Katni Bijlee Utpadan Nigam Limited, Katni, District Muzaffarpur,
6. Notices were issued to the respondents.
 7. The Tribunal also constituted a Committee comprising of the following members:-
 - (i) Senior Scientist, Bihar State Pollution Control Board;
 - (ii) Senior Scientist, Central Pollution Control Board; and
 - (iii) District Magistrate, Muzaffarpur, or his representative not below the rank of the Additional District Magistrate,
 8. The Committee was directed to visit the site in question and submit its Report on affidavit.
 9. Counter-affidavit dated 21.09.2023 has been filed by Bihar State Pollution Control Board. Along with this affidavit, an Inspection Report of an inspection carried out on 06.07.2023 has been filed which reads as under:-

“निरीक्षण प्रतिवेदन

परिषद मुख्य लेकर पत्रांक 1120 दिनांक 27.06.2023 के क्रम में मेसर्स काँटी बिजली उत्पादन निगम लिमिटेड/ एम.टी.पी.एस. (NTPC Ltd.) काँटी, पो0- काँटी थर्मल, मुजफ्फरपुर का स्थल निरीक्षण दिनांक 06.07.2023 को श्री विपिन पांडे DGM(EMG) जी के उपस्थिति में अधोहस्ताक्षरी द्वारा किया गया है.

इकाई के विरुद्ध प्राप्त शिकायत के आलोक में पत्रांक 1313 दिनांक 25.02.2020 द्वारा निदेश दिया गया था जिसका अनुपालन प्रतिवदेन निम्नवत है-

Sl. No.	Board's direction to the unit	Compliance Status of the unit
1.	Carry out the performances of the jobs enumerated in the time schedule with undertaking	Unit is Complying as per revised timeline.

	<i>submitted to the board vide letter dated 30.01.2020;</i>	
2.	<i>Achieve 100% ash utilization in 2020-21 as per plan submitted vide letter no. KBUNL/MTPS/43028, dated 08.02.2020 in compliance Notification dated 14.09.1999 of MoEF & CC for Utilization of Fly-ash from coal of lignite based thermal power plant;</i>	<i>Complying</i>
3.	<i>Complete the work of separation of process drain and storm water drain by 31.12.2020;</i>	<i>Complied</i>
4.	<i>Make effort for installation of FGD and low NOx burner in both Stage-I & II units by 31.12.2020 and complete the work by 30.06.2021;</i>	<i>Installation of FGD shall be completed by 2025 as per MoEF Gazette notification. NOx reduction system has been installed in stage-II units. Stage-I units permanently closed.</i>
5.	<i>Ensure regular and adequate sprinkling of water on peripheral road of ash-dyke upon which heavy vehicles ply by the end of 31.03.2020;</i>	<i>Complying</i>
6.	<i>Ensure transportation of fly-ash/soil by covered vehicle with immediate effect;</i>	<i>Complying</i>
7.	<i>Ensure fencing, lighting and adequate security around the ash-pond/dyke by the end of 30.06.2020;</i>	<i>Complied</i>
8.	<i>Ensure construction of toe-drain and peripheral drain around ash-pond/dyke to stop seepage of water into farmer's field and also to ensure that there is no breach of ash-pond/dyke in the rainy season by 30.06.2020;</i>	<i>Complied</i>
9.	<i>Ensure green belt around the peripheral drain ash-dyke as well as inside and around the plant, whoever space available by 31.03.2021;</i>	<i>Complied</i>
10.	<i>Ensure compliance of the conditions imposed in the environmental clearance/CTO and direction given by the Central Pollution Control</i>	<i>Complying</i>

	<i>Board and State Pollution Control Board; and</i>	
11.	<i>Furnish a bank guarantee of Rs.5 Crore (Rupees Five Crore) only within 15 days. To ensure performance of the works/jobs as enumerated about as well as in your timelines, submitted to the Board vide letter nos. KBUNL/MTPS/42986, 30.01.2020 and KBUNL/MTPS/43028, dated 08.02.2020;</i>	<i>Unit has submitted bank guarantee of Rs.7.0 Crore to ensure the completion of construction of silo for dry ash collection, ash dyke for stage-II plant & STP for their residential colony till 31.03.2024 construction of silo, STP and ash dyke found in progress and would be completed by schedule time.</i>

इकाई द्वारा जनित वहिःस्त्राव का उपचार हेतु वहिःस्त्राव उपचार संयंत्र स्थापित कर संचालन किया जाता है। उपचारित वहिःस्त्राव का पुनः उपयोग परिसर के अन्दर किया जाता है। ऐस डाईक नं0-03 का Over flow अन्य पौण्ड मे जमा होता है, जिसे पुनः प्लान्ट के अन्दर Ash slurry तैयार करने एवं ऐस डाईक के चारों तरफ जल छिड़काव आदि के लिए उपयोग किया जाता है। इस प्रकार इकाई द्वारा किसी भी प्रकार का रसायन युक्त अथवा राख से मिश्रित वहिःस्त्राव का निस्सारण कोठिया मन में नहीं होता है। श्री पांडेय्य द्वारा सूचित किया गया कि एस.टी.पी. का निर्माण जूलाई 2023 तक पुरा हो जायगा। एस.टी.पी. का संचालन प्रारंभ होने पर कॉलोनी का भी वहिःस्त्राव (sewage के अतिरिक्त) कोठिया मन में नहीं किया जायगा।

पत्र के साथ सलग्न शिकायत पत्र (परिवादी श्री लड्डू सहनी) के क्रम में कोठिया मन का भी निरीक्षण किया गया। निरीक्षण क्रम में पाया गया कि इस मन में कांटी थर्मल पावर के आवासीय कॉलोनी का वहिःस्त्राव (sewage के अतिरिक्त) निस्सारित किया जाता है। इसके अतिरिक्त कांटी नगर पंचायत में अवस्थित बाजार एवं कोठिया मन के किनारे बसे गोप टोला का अनुपचारित वहिःस्त्राव भी मुख्य रूप से मन में निस्सारित होता है। मन में निस्सारित होने वाले खोतों का नमूना संग्रहण किया गया है।

अनुसंशा:-

उपरोक्त तथ्यों एवं कोठिया मन में निस्सारित होने वाले वहिःस्त्राव के विक्षेपण प्रतिवेदन के आधार पर इकाई एवं नगर पंचायत कांटी को आवश्यक निर्देश दिया जा सकता है।”

10. Further counter-affidavit dated 12.04.2024 has been filed by Bihar State Pollution Control Board bringing on record an Inspection Report of an inspection carried out on 12.02.2024. The Inspection Report reads as under:-

“Inspection report in the matter of O.A. 95/2023/EZ (Earlier O.A. 362/2023/PB) Titled Laddu Sahni Vs. the State of Bihar.

As per direction of the Hon'ble NGT the in the matter of O.A. 95/2023/EZ, order dated-01.02.2024, a committee was constituted comprising of following members:-

- 1. Senior Scientist, Bihar State Pollution Control Board;*
- 2. Senior Scientist, Central Pollution Control Board;*
- 3. District Magistrate, Muzaffarpur.*

The committee was directed to visit the site in question considering the allegations made in application and submit its report on affidavit. Accordingly, Bihar State Pollution Control Board (BSPCB) being the nodal agency issued a letter (Ref. no. 371, dated-07.02.2024) to the concerned department for nomination of the officer so that inspection may be carried out on 12.02.2024. Following officials carried out the inspection work on 12.02.2024:-

- 1. Sri Arun Kumar, Board Analyst, BSPCB, Patna;*
- 2. Sri Sanjeev Kumar, ADM, Muzaffarpur;*
- 3. Sri Sandeep Roy, Scientist 'D', CPCB.*

Following officials were present from M/s Kanti Bijali Utpadan Nigam Limited (KBUNL) (NTPC), Kanti, Muzaffarpur:-

- 1. Mr. Tapan Saha, General Manager (Maintenance);*
- 2. Mr. Hari Kumar, AGM (EMG);*
- 3. Mr. V.K. Pandey, DGM (EMG);*
- 4. Mr. Mukesh Kumar, Assistant Officer (EMG).*

About MTPS – NTPC

Muzaffarpur Thermal Power Station (MTPS), NTPC Kanti is a coal based Thermal Power Plant situated at village Kanti, in the Muzaffarpur district of Bihar. NTPC Kanti (erstwhile known as Kanti Bijlee Utpadan Nigam Limited) was originally commissioned in 1985 by Bihar State Electricity Board (BSEB) and later it became joint venture company of NTPC & Bihar State Power Generation Company Limited (BSPGCL). Thereafter, same was converted In to 100 % subsidiary of NTPC Limited and finally Kanci Bijlee Utpadan Nlgam Limited (KBUNL) merged with NTPC and named as Muzzafarpur Thermal Power Station (MTPS), NTPC Limited. The initial installed

capacity of power plant was 220 MW (2 X 110 MW) under Stage-I. Subsequently, In FY 2015-16, an additional capacity of 390 MW (2 X 195 MW) under Stage-II was added as an expansion project. The operation of old Stage-I units (Unit 1 & 2) of MTPS has been permanently stopped w.e.f. 08.09.2021 and presently only Stage-II units i.e. Unit 3 & 4 are under operation. Its plant load factor stood at 87.58% during FY: 2022-23.

Coal requirement of MTPS, Stage-II is fulfilled from the mines of Eastern Coalfields Ltd. and transported through Indian Railways. The source of raw water for plant operation is Burhl Gandak river which is located about 4 Km from plant boundary. The project is situated on Muzaffarpur-Motihari section of National Highway- 28 and the nearest town Muzaffarpur is about 13 km from the plant.

The ash generated from the plant is collected in dry form and sent to the ash ponds in form of slurry. The daily ash generation is approximately 2000 MT. The plant is having 03 nos. of ash ponds details of which are following:-

- Lagoon area#1 (Ash pond): 150 Acres;
- Lagoon area#2 (Ash pond): 60 Acres;
- Lagoon area#3 (Ash pond): 60 Acres.

The plant is constructing silos for collection and storage of dry ash collection. It will put into operation very shortly. The utilization of ash pond system will be minimized in phased manner. At present, the plant has already stopped the use of ash pond number- 1 and this pond was under reclamation process. The unit is informed that solar panel/ plant will be installed on this pond.

Observations:

- 1.As per allegations made in application, the committee members visited the affected site on 12.02.2024. During site visit, it was observed that as Lagoon area number-2 was in use for ash slurry disposal. Lagoon area number- 3 was under evacuation process. The evacuated ash from the ash pond and dry ash is sent to various cement plants, fly ash brick manufacturing, road construction, land-filling, etc. through competitive bidding process for its utilization.
- 2.The plant has installed STP of 550 MLD capacity for treatment of sewage generated in their township area. The treated wastewater from STP is utilized for gardening purpose in the township only.

3. The plant is having ETP for treatment of Industrial/process wastewater. The capacity of ETP is 75 m³/hr (1.8 MLD). The treated wastewater from ETP is utilized for ash slurry making purpose and thus maintaining Zero Liquid Discharge (ZLD) as per the condition mentioned in the CTOs. The unit has also installed OCEMS system at the final outlet/recycling point to monitor the parameters like pH, TSS, Temp. The data is also being transferred to BSPCB and CPCB servers. During visit, pH and TSS was observed as 7.75 and 6.18 respectively in OCEMS. The same was also verified through OCEMS Portal of BSPCB, this site is assessable for public also.
4. The garland drain is constructed around the periphery of ash ponds to collect the seepage water from the ponds and it is sent for ash slurry recirculation system.
5. During discussion with MTPS officials it came to know that the land and water body adjoining to the periphery of Lagoon area number- 2 and 3 belongs to M/s MTPS-NTPC, Kanti, Muzaffarpur. In this regard they also produced the necessary land records including Google map to the committee members. As informed by MTPS, the land/water body intentionally kept in idle condition to cater to any emergency situation like heavy rain condition, seepage from ash ponds or other natural calamity so that it could not affect the nearby habitats.
6. The M/s MTPS has also installed water sprinkling system at different locations at ash ponds. Water is also sprinkled manually using hose pipe with tractor mounted water tankers.
7. During visit, the officials also interacted with local fishermen. Mr. Shambhu Sahni and Mr. Harvindra Sahni, on behalf of fishermen, informed that the water body available surrounding to the lagoon/ash ponds is utilized for fishing purpose around the year. The average depth of water body is 8-10 ft. (during winter season) and 4-6 ft. (during summer season).
8. As stated by the fishermen these ponds are managed by Mr. Laddu Sahni (Head of Kanti Block 'Matsyajivi Sahyog Samiti Limited, Kanti, Dist.- Muzaffarpur) and allocated by Mr. Laddu Sahni to the local villagers/ fishermen on lease basis.

9. As informed by the fishermen, the pond is used for fishing of breeds likes Rohu, Katla and Naini fish. The cleaning of water body, removal of water hyacinth etc. Is done by fishermen only at their own cost. The fishermen have no complaint about any discharge of supernatant/ wastewater from lagoon/ ash ponds. However, it was stated that sewage/ untreated wastewater coming from surrounding area including MTPS-NTPC township area is drained into the pond between lagoon area and Kanti village boundary and this is affecting the fish breeding. However, during inspection, it was observed that untreated sewage water is coming from the Kanti village at different locations only and it is also observed that untreated waste water was not coming from the MTPS-NTPC. The drain coming from the MTPS-NTPC was observed dry. It was also observed that presently ash was not discharging in to the pond in question.

10. The District Fisheries Officer, Muzaffarpur, vide his letter no. 306 dt. 02.03.2024 has reported that there is no source of discharge of NTPC in the pond in question. However, sewage water is coming from pucca houses situated near the pond. The inspection team of Office of the District Fisheries Officer-cum-Chief Executive Officer, Muzaffarpur has reported also that dead fishes were not found in the said pond.

11. pH, Dissolved Oxygen (DO) and Bio-Chemical Oxygen Demand (BOD) were observed 7.98, 7.8 mg/L, and 24, mg/L respectively. The pond water is used for fisheries. As per Designated Water Quality Criteria for Wildlife Propagation & Fisheries, (Class- D), the water should have pH-6.5 to 8.5 and DO- 4 mg/L or more. The pond water was found suitable for fisheries.

12. Analysis Report of STP and ETP of the MTPA-NTPC, Kanti, Muzaffarpur were found within the prescribed standard as mentioned in the Schedule VI of the E (P) Act, 1986.

13. **Recommendations:**

- a. The MTPS-NTPS should continue to maintain Zero Liquid Discharge. They shall utilize their treated waste water in processing/ washing/ Ash slurry making/ Horticulture/ watering of plants etc.

b. The unit should ensure that there is no any industrial or domestic discharge through storm water drain.”

11. The Respondent No.4, NTPC, has filed affidavit dated 29.02.2024 stating that the NTPC owns and operate Muzaffarpur Thermal Power Station, erstwhile Kanti Bijlee Utpadan Nigam Limited (KBUNL). It is stated that the present commissioned capacity of the Muzaffarpur Thermal Power Station is 390 MW (2 X 195 MW).
12. The stand of the NTPC is that the said Thermal Power Plant generates power using coal as fuel. The combustion of coal in the Thermal Power Plant results in steam generation and steam turbine is used as prime mover for generation of electricity by Electric Generator.
13. It is stated that the said Thermal Power Plant is equipped with process waste water/effluent handling system consisting of localized process water pits and pumping system to collect all the effluent and feed to the centralized Effluent Treatment Plant (ETP). It is also stated that the treated water is being re-utilized in the process to meet process water requirement. The Thermal Power Plant has ash dyke lagoons (1, 2 & 3) having operational Ash Water Recirculation System (AWRS) and is taken back to the plant and re-utilized in the process i.e. preparation of ash slurry. It is also stated that the Sewage Treatment Plant (STP) with latest technology has been installed and is in operation at the said power plant.
14. We have heard the Applicant and the learned Counsel for the Respondents.
15. The Inspection Report of the inspection carried out on 06.07.2023 shows that the Respondent No.4-Unit is fully compliant in achieving 100% ash utilization in 2020-21 as per MoEF & CC Notification dated 14.09.1999 for utilization of fly ash from coal of

lignite based thermal power plant; separation of process drain and storm water drain by 31.12.2020 has been fully complied; installation of Flue Gas Desulfurization (FGD) shall be completed by 2025 as per MoEF & CC Gazette Notification; NOx reduction system has been installed in Stage-II Units; Stage-I Units are permanently closed. The Respondent No.4-Unit has ensured regular and adequate sprinkling of the water on peripheral road of ash-dyke upon which heavy vehicles ply; transportation of fly-ash/soil by covered vehicle has been fully complied; fencing, lighting and adequate security around the ash-pond/dyke by the end of 30.06.2020 has been fully complied; construction of toe-drain and peripheral drain around ash-pond/dyke to stop seepage of water into farm land and to ensure that there is no breach of ash-pond/dyke in rainy season has been fully complied; green belt around the peripheral drain, ash-dyke as well as inside and around the plant has been fully complied; conditions imposed in the Environmental Clearance/Consent to Operate (CTO) has been fully complied. The Committee has also reported that the Unit has submitted bank guarantee of Rs.7.0 Crore to ensure completion of construction of Silo for dry ash collection, ash dyke for Stage-II plant & STP for their residential colony till 31.03.2024 would be completed in the schedule time frame.

16. The observations of the Committee in its inspection carried out on 12.02.2024 has noted that the Plant is constructing silos for collection and storage of dry ash collection; Ash generated from the Plant is collected in dry form and sent to the ash ponds in form of slurry. The Committee also observed that the Lagoon area number-2 was in use for ash slurry disposal; Lagoon area number-3 was under evacuation process; the evacuated ash from the ash pond

and dry ash is sent to various cement plants, fly ash brick manufacturing, road construction, land-filling, etc. through competitive bidding for its utilization. The Committee also noted that the Plant has installed STP of 550 MLD capacity for treatment of sewage generated in their township area and the treated waste water from the STP is being utilized for gardening purposes in the township only. The Committee noted that the Plant is having ETP for treatment of industrial/process waste water having a capacity of 75 m³/hr (1.8 MLD). The treated waste water from the ETP is utilized for ash slurry making purpose and thus maintaining Zero Liquid Discharge (ZLD). It was also noted that garland drain has been constructed around the periphery of ash ponds to collect seepage water from the ponds and send it for ash slurry recirculation system; water sprinkling system has been installed at different locations at the ash ponds and besides water is also being sprinkled manually using hose pipe with tractor mounted water tankers. The Committee members also interacted with local fishermen and were informed that the water body available surrounding the lagoon/ash ponds is being utilized for fishing purpose around the year and its average depth is about 8-10 ft. during winter season and 4-6 ft. during summer season.

17. The Report further mentions that the local fishermen also informed that these ponds are being managed by the Applicant-Mr. Laddu Sahni, Head of Kanti Block 'Matsyajivi Sahyog Samiti Limited', Kanti, Dist.-Muzaffarpur and are being allocated by the Applicant to the local villagers/fishermen on lease basis. The local fishermen also informed that cleaning of water body, removal of water hyacinth etc. is being done by the fishermen at their own cost. The fishermen have also stated that they have no complaint about any

discharge of any supernatant/waste water from lagoon/ash ponds but it was stated that sewage/untreated waste water coming from surrounding area including the township area of the Respondent No.4, Plant is drained into the pond between lagoon area and Kanti village boundary which is affecting fish breeding. The Committee noted that untreated sewage water was coming from the Kanti village at different location but the untreated waste water was not coming from the MTPS-NTPC, Respondent No.4; the drain coming from the MTPS-NTPC was observed to be dry; it was also observed that ash was not discharging into the pond in question. The Committee recommended that the Plant should maintain Zero Liquid Discharge (ZLD) and utilize their treated waste water in processing/washing/ash slurry making/horticulture/watering of plants etc. and that no industrial or domestic discharge is allowed through storm water drain.

18. The Committee also noted that the pH, Dissolved Oxygen (DO) and Bio-Chemical Oxygen Demand (BOD) were observed at 7.98, 7.8 mg/L and 24 mg/L respectively and since the water was being used for fisheries, therefore, the same was within the prescribed pH standard of 6.5 to 8.5 and DO-4 mg/L or more.
19. From the Inspection Reports and the analyses of the same as we have noted hereinabove, we find that the allegations in the complaint of the Applicant have been found to be duly addressed and the directions given in the order of 28.09.2020 in O.A. No.272/2019, *Satyanarayan Sahni vs. State of Bihar*, have also been duly complied with.
20. With the above observations, the Original Application No.95/2023/EZ is accordingly disposed of.
21. Interlocutory Applications, if any, stand disposed of.

22. There shall be no order as to costs.

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B. Amit Sthalekar, JM

April 16, 2024,
Original Application No.95/2023/EZ
(Earlier O.A. No.362/2023/PB)
MN

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Dr. Arun Kumar Verma, EM