

Item No: 4 and 5

BEFORE THE NATIONAL GREEN TRIBUNAL  
SOUTHERN ZONE, CHENNAI

Original Application No.122 of 2021 (SZ)

With

Original Application No.162 of 2021 (SZ)

(Through Video Conference)

IN THE MATTER OF:

R. Ravimaran, Ennore, Chennai.

...Applicant(s)

Union of India,  
Rep. by its Secretary,  
MoEF&CC, New Delhi and Ors.



*Versus*

...Respondent(s)

**With**

सत्यमेव जयते

Tribunal on its own motion  
Suo Motu based on the news item published in  
The Times of India Newspaper, Chennai edition  
dt.01.07.2021, "Another pipeline leak at Ennore Power Plant"

...Applicant(s)

Union of India,  
Rep. by its Secretary,  
MoEF&CC and Ors.

*Versus*

...Respondent(s)

**Date of hearing: 31.01.2022**

**CORAM:**

**HON'BLE Mr. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER**

**HON'BLE Dr. SATYAGOPAL KORLAPATI, EXPERT MEMBER**

O.A. No. 122 of 2021

For Applicant(s):

For Respondent(s):

Mr. A. Yogeshwaran

Mr. M.R. Gokul Krishan for R1

Dr. D. Shanmuganathan for R2 and R3

Mr. Vijaya Mehanathan for R4 and R5

Mr. Sai Sathya Jith for R6.

O.A. No. 162 of 2021

For Applicant(s):

For Respondent(s):

Suo Motu

Mr. M.R. Gokul Krishan for R1

Dr. D. Shanmuganathan for R2 to R6,  
R11,R12

Mr. Sai Sathya Jith for R8.

Mr. Vijaya Mehanathan for R9 and R10  
Mr.s Revathia Manivannan for R7

**ORDER**

1. Judgment pronounced through Video Conference. Application is disposed of with directions vide separate Judgment. All pending interlocutory application(s), if any, also stands disposed of, in view of the disposal of the Applications.



.....J.M.  
(Justice K. Ramakrishnan)

.....E.M.  
(Dr. Satyagopal Korlapati)

O.A. No.122/2021 (SZ)  
O.A. No.162/2021(SZ)  
31<sup>st</sup> January, 2022. AM.



**BEFORE THE NATIONAL GREEN TRIBUNAL  
SOUTHERN ZONE, CHENNAI**

**Original Application No. 122 of 2021 (SZ)**

**&**

**Original Application No. 162 of 2021(SZ)**

(Through Video Conference)

**IN THE MATTER OF**

R. Ravimaran  
S/o Ramachandran  
No.42, Beach Road, Thazhankuppam  
Ennore, Chennai- 600057

....Applicant(s)

**Versus**

1. Union of India  
Rep by its Secretary  
The Ministry of Environment, Forest and Climate Change  
Jorbagh, New Delhi
2. The Tamil Nadu Coastal Zone Management Authority  
Rep by its Director,  
Department of Environment,  
No.1, Jeenis Road, Panagal Building,  
Ground Floor, Saidapet, Chennai- 600 015
3. The Public Works Department,  
State of Tamil Nadu  
Rep by its Secretary  
Fort St. George, Chennai.
4. Tamil Nadu Generation and Distribution Corporation (TANGEDCO)  
Rep by its Chairman cum Managing Director,  
10<sup>th</sup> Floor, NPKRR Maaligai, 144, Anna Salai,  
Chennai- 600 002
5. North Chennai Thermal Power Station,  
Rep by its Chief Engineer  
Athipattu, Chennai, Thiruvallur (district) 600120
6. The Tamil Nadu Pollution Control Board  
Rep by its Member Secretary  
No. 76, Mount Salai, Chennai.

... Respondent(s)

With

Tribunal on its own motion-Suo Motu based  
On the news Item published in the Times of India  
Chennai Edition, dated 01.07.2021, under the caption  
“Another Pipeline leak at Ennore Power Plant”.



**Versus**

1. Union of India  
Rep by its Secretary  
The Ministry of Environment, Forest and Climate Change  
Indira Paryavaran Bhawan Jorbagh,  
New Delhi- 110003
2. The Chief Secretary to Govt. of Tamil Nadu  
Govt Secretariat, Fort St. George,  
Chennai Tamil Nadu- 600 009
3. The Principal Secretary to Government,  
Public works Department,  
Govt Secretariat, Fort St. George,  
Chennai Tamil Nadu- 600 009
4. The Secretary to Govt. of Tamil Nadu  
Department of Environment, Climate Change and Forests  
Govt Secretariat, Fort St. George,  
Chennai Tamil Nadu- 600 009
5. The Principal Secretary to Govt. of Tami Nadu  
Department of Energy,  
Govt Secretariat, Fort St. George,  
Chennai Tamil Nadu- 600 009
6. Tamil Nadu Coastal Zone Management Authority  
Rep by its Member Secretary,  
First Floor, Pangal Building  
Saidapet, Chennai- 600 015
7. The Chairman  
Central Pollution Control Board,  
Parivesh Bhawan, East Arjun Nagar,  
New Delhi 110 032
8. The Chairman,  
Tamil Nadu Pollution Control Board  
No. 76, Anna Salai, Guindy,  
Chennai, Tamil Nadu- 600 032
9. Tamil Nadu Generation and Distribution Corporation  
Rep by its Chairman cum Managing Director,  
6<sup>th</sup> Floor, TANTRANSCO Building,  
144, Anna Salai  
Chennai- 600 002
10. North Chennai Thermal Power Station,  
Rep by its Chief Engineer  
Athipattu, Chennai, Thiruvallur Chennai 600120
11. The District Collector,



Tiruvallur District,  
First Floor, Collectorate,  
Tiruvallur- 602 001

12. The Chief Engineer,  
Public Works Department, WRO,  
State Ground Water and Surface,  
Water Resoruces Data Cener,  
Taramani, Chennai- 600 113

... Respondent(s)

O.A. No. 122 of 2021

For Applicant(s):

Mr. A. Yogeshwaran

For Respondent(s):

Mr. M.R. Gokul Krishan for R1

Dr. D. Shanmuganathan for R2 and R3

Mr. Vijaya Mehanathan for R4 and R5

Mr. Sai Sathya Jith for R6.

O.A. No. 162 of 2021

For Applicant(s):

Suo Motu

For Respondent(s):

Mr. M.R. Gokul Krishan for R1

Dr. D. Shanmuganathan for R2 to R6,  
R11,R12

Mr. Sai Sathya Jith for R8.

Mr. Vijaya Mehanathan for R9 and R10

Mr.s Revathia Manivannan for R7

**Judgment Reserved on: 17<sup>th</sup> January, 2022**

**Judgment Pronounced on: 31<sup>st</sup> January, 2022**

**CORAM:**

**HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER**

**HON'BLE DR. SATYAGOPAL KORLAPATI, EXPERT MEMBER**

Whether the Judgement is allowed to be published on the Internet – Yes/No

Whether the Judgement is to be published in the All India NGT Reporter – Yes/No

**JUDGMENT**

***Delivered by Justice K. Ramakrishnan, Judicial Member.***

1. Original Application no. 122 of 2021 was filed by one Mr. R. Ravimaran, resident of Thazhankuppam Village, Ennore and a fishermen by profession alleging that the 5<sup>th</sup> respondent is constructing a pipeline intended for carrying fly ash slurry through CRZ area without obtaining necessary clearance under the CRZ Notification, 2011 and EIA Notification, 2006

and it is not part of the Environmental Clearance/CRZ Clearance granted to the 5<sup>th</sup> respondent and in violation of the same.

2. According to the applicant, 5<sup>th</sup> respondent, Power Station is located in Kattupalli Island in Ennore and Puzhuthivakkam Villages. Between the island and the mainland is the Kosasthalaiyar River and its expansive backwaters. The Buckingham canal runs alongside the backwaters. The backwater connects the Ennore estuary to the Pulicat lagoon system. The backwaters, referred to as “Paraval” in Tamil along with the Ennore creek and the Pulicat lagoon are of great ecological importance, in addition to serving as a “flood sink” and a buffer against salinity intrusion.

3. The 5<sup>th</sup> respondent North Chennai Thermal Power Station (TPP) operates several units of coal-fired thermal power plants totalling 1,830-megawatt (MW) coal-fired power station in Tamil Nadu. The 5<sup>th</sup> Respondent’s power plant is owned and operated by 4<sup>th</sup> respondent- the Tamil Nadu Generation and Distribution Corporation (TANGEDCO). The power station comprises three 210 megawatt coal-fired units which were commissioned between 1994 and 1996, as well as two 600 MW units commissioned in 2013. Another 800 MW power plant, called NCTPS Stage III, is currently under construction. Environmental Clearance/CRZ Clearance for the unit, its coal conveyor and seawater intake and discharge infrastructure has been obtained vide proceedings dated 20.01.2016.

4. The fly ash generated from the currently operational thermal power plant is transported in slurry form through ageing pipelines to the ash pond (which is unlined), a source of contamination and constructed in violation of prescribed norms, which have been discharging slurry into the water bodies. The google earth images of the area available from 2002 onwards show that ash has been leaked into the environment for several decades. Due to tidal action, the ash from the flood plains is washed away into the river system and hence huge quantity of ash has been washed into the environment.

5. The ash is the waste generated by burning of coal and the term fly ash is used therein to include both fly ash and bottom ash. The ash generated by Thermal Power Plants both fly ash and bottom ash are serious pollutants, apart from containing Nickel (Ni) Cadmium (Cd) Antimony (Sb) Arsenic (As) Chromium (Cr) Lead (Pb), Mercury (Hg) they are also radioactive.

6. 5th respondent has been illegally discharging ash into the Kosasthalaiyar, its flood plains and the Buckingham canal for decades and has severely contaminated the area. Aggrieved by this illegality, the applicant approached this Tribunal by filing original application No. 08 of 2016 and this Tribunal after taking cognizance of the illegalities passed several orders, including constitution of an expert committee to study this issue and the report of the expert committee stands testimony



to the severity of the hazardous levels of contamination in the region. The illicit discharge of ash continues till date and no steps have been taken to replace the old pipelines and to prevent further contamination and the contamination caused is yet to be cleaned up.

7. While things stood thus, the 5th respondent commenced unloading pipelines and it was hoped that it was for replacing the leaking pipelines in tune with the statements made by the 5th respondent before this Hon'ble Tribunal in OA No. 8 of 2016. However, to the shock of the residents including the applicant, 5th respondent began construction work for construction of a bridge like structure on which to carry the new pipelines for carrying ash from the Stage III power plant under construction by encroaching the Kosasthalaiyar river and the Paraval, obstructing and diverting water flow and interfering with tidal movement so essential for flushing and healthy fish populations.

8. The 5th respondent has reclaimed areas of the Kosasthaliar river in order to construct structures by encroaching into the same for the purpose of construction of the structure. Encroachment and reclamation of water body is illegal and cannot be permitted in law. Water bodies cannot be reclaimed for any such activity. Even a bridge cutting cross a water body can be permitted only with the permission of the concerned authorities, which includes the Public Works Department, and designed in such a way as to have minimum impact on water

flow and ecology of the water body. Further, though it is a permissible activity under the CRZ Notification in certain zones, the same can be constructed only after obtaining necessary CRZ Clearances, as admittedly this area falls under CRZ zone covered by the CRZ Notification. In this case no such clearance was obtained for the purpose of laying pipelines through CRZ area.

9. The EIA studies conducted for the purpose of obtaining Environment Clearance and CRZ Clearance for this project of Thermal Plant Stage-III did not disclose the necessity for construction of pipeline and as such people in the locality did not object to the same during public hearing. The 5th respondent had committed fraud in obtaining the clearance.
10. The scrutiny of the permissions obtained by the 5th respondent shows that no permission has been obtained for construction of pipelines to carry ash from the power plant. In fact, the entire EIA report is silent on pipelines and the EIA report has been prepared on the basis that 100% ash generated will be utilized without disposing the same in the ash pond. In fact, no ash pond area has been identified in the EIA reports and no clearance for the same has been obtained.
11. The Environmental clearance and CRZ clearance dated 20.01.2016 obtained by the 5th Respondent is limited only to foreshore facilities (coal and seawater) and not for ash pipeline conveyor. The Environmental Clearance clearly describes the facilities within CRZ Area as a) Coal Conveyor b) Supporting

Trestles for Coal Conveyor c) Seawater intake from forebay d) Glass Reinforced Plastic pipes for cooling water intake and coolant water outlet. Thus, handling or conveyance of coal ash slurry through CRZ areas is not part of the Environmental Clearance/CRZ clearance obtained by the 5th respondent.

12. The applicant also extracted some portion of the study in the application as follows:

- a. Table 2.5.1.1 (Page 2.7) contains the detailed land break up for the project. There is no land allocation for ash pipeline.
- b. Page TOR-14 contains the layout for the project. Ash pipeline connecting the power plant to the ash dyke is not part of the layout for which EC/CRZ is sought.
- c. TOR xiv, Page No. TOR-3 is a response to a question whether the site requires any filling. Since the ash pipeline corridor would have to cross the Kosasthalai River and backwaters, it necessarily involves filling at least for the construction of columns to support the ash pipelines. EIA states “No fill material required as the proposed site is almost plain.”
- d. Page 9.1, Section 9.5.1 states “100% utilization of fly ash in dry form is envisaged. Closed trucks and containers would be used for this as far as possible.” Conveyance of ash in slurry form through pipelines was not envisaged.
  - Table 9.5.1.2 --- Ash dyke is to be used only for emergency disposal for not more than 8 days. The ash pipeline corridor being constructed is a permanent structure for routine use, as no such structure would be required if the maximum conceived usage of ash dyke under emergency conditions is for a mere 8 days/year.
- e. TOR XIX, Page TOR-3 seeks details of water body/nallah passing across the site. The EIA states: “No water body/nallah are passing across the site.” The ash pipeline is being constructed across the Kosasthalai River and its backwaters leading to obstruction, diversion and disturbance of water flow and tidal movement.
- f. TOR XX, Page TOR-4 requires an assurance that a minimum of 500 metres distance of plant boundary is kept from HFL of river system/streams etc. The EIA states: “The proposed site is 500m away from the High Tide Line Sea and 100m away from the canal.” The ash pipeline corridor traverses the intertidal area, the canal, the Kosasthalai River and its backwaters.
- g. g) In Additional TOR for coastal-based TPPs. Page TOR-12 of EIA, it is stated as below against the respective entry:
  - b) The proposed project site doesn't include marshy areas and backwaters.
  - c). No water body/nallah are passing across the site. So no diversion of canals envisaged.
  - e). There are no marshy areas in the proposed site.

13. No consent to establish has been obtained under the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 for construction of ash slurry pipeline. The consent to establish under the



Water (Prevention and Control of Pollution) Act, 1974 does not cover handling or discharge of coal ash slurry. “Trade effluent” mentioned in the Water Act includes only Cooling Water Blowdown, Desalination plant reject, DM plant reject, waste water from service water system. So, the ongoing construction is thus illegal as it is being carried out without a valid Consent to Establish under the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 as well. The Construction will affect the water bodies and it is in violation of the conditions imposed in the Environmental Clearance dated 20.01.2016. The construction was against the recommendations made by the Tamil Nadu Coastal Zone Management Authority for CRZ Clearance and this will affect the livelihood of the fishermen community in that area. Though, this was brought to the notice of the authorities, no action was taken and the 5<sup>th</sup> respondent is hurriedly carrying on with the construction activity during lockdown period as well. So, the applicant had no other remedy except to approach this Tribunal seeking the following interim as well as final reliefs:

**INTERIM RELIEF:**

Pending disposal of the present application, the applicant prays that this Hon’ble Tribunal be pleased :

- A. issue an order Injunction restraining the 5th respondent from continuing with its ongoing construction of structures to carry pipelines to transport coal ash across the backwaters and main channel of the Kosasthailayar river.
- B. Issue such other orders as it deems fit in the interest of the case and render justice.

**PRAYER**

It is therefore prayed that this Hon’ble Tribunal may be pleased to:

- A. Direct Respondents No. 1 to 5 to forthwith demolish the illegal structures constructed by the 4th and 5th respondents to carry pipelines to transport coal ash across the backwaters and main channel of the Kosasthailayar river.

B. Direct the 4th and 5th respondents to utilize the pipelines procured by them to replace the leaking, ageing pipelines carrying ash slurry from the 1st and 2nd phase Thermal plants. So as to prevent further contamination of the environment.

C. Direct the payment of compensation for environmental harm on account of the violation committed by the 5th respondent.

D. Direct respondents 1 and 2 to prosecute the 5th respondent for violation of the CRZ Notification, 2011 and for encroachment of the Kosasthalaiar and its backwaters.

E. Issue such other orders as it deems fit in the interest of the case and render justice.

14. Respondent nos. 4 and 5 filed reply statement contending that

the application is not maintainable as it is barred by limitation and the allegations are incorrect both factual as well as legally.

The Tamil Nadu Electricity Board was formed on 1<sup>st</sup> July, 1957 under Section 54 of the Electricity (Supply) Act, 1948 in State of Tamil Nadu which was responsible for power generation, transmission and distribution. The electricity network has since been extended to all villages and towns throughout the State. Tamil Nadu Electricity Board was re-structured on 01.11.2010 into Tamil Nadu Electricity Board Limited, Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) and Tamil Nadu Transmission Corporation Limited (TANTRANSCO).

15. Respondent nos. 4 and 5 proposed to establish 1x800 MW, NCTPP stage III Super Critical Thermal Power Plant which is only an expansion unit in the vacant land available within the existing North Chennai Thermal Power Station complex at Ennore and Puzhuthivakkam Villages of Ponneri taluk, Tiruvallur District.

16. This project was conceived in 1989 itself as a Stage III project as the land had already been acquired for accommodating all

the three stages of NCTPs and is developed to generate power using the existing features of NCTPS Stage I and Stage II within the industrial land of NCTPS complex, which is enclosed in a pucca compound wall constructed during 1990. The Chennai Metropolitan Development Authority has declared the subject complex as “industrial land”. Based on the power demand and financial status of the Electricity Board, these power plants were executed in a phased manner utilising the public exchequer. Stage I power plant of installed capacity of 3x210 MW was being operated since 1995 onwards and Stage II power plant of installed capacity of 2x600 MW commissioned from 2017 onwards inside the NCTPS complex.

17. The on-going NCTPS Stage III project is now being established to offset the power demand of Tamil Nadu using the existing facilities without any further acquisition of the land from the public and the progress of the work is in a good phase. The work was being executed through two Engineering, Procurement and Construction contractors, namely, M/s BHEL, New Delhi and M/s BGR Energy System Limited, Chennai. They were engaging sub-contractors for procurement of construction materials, execution of work etc.

18. Public hearing was conducted in respect of this project on 05.03.2015 under the Chairmanship of the District Collector, Tiruvallur District along with the public and other department officials. The grievances of the public were recorded. They applied for Environmental Clearance as mandated under EIA



Notification, 2006 to the Ministry of Environment, Forest and Climate Change, the 1<sup>st</sup> respondent herein and the project presentation was made by the TANGEDCO in the Tamil Nadu State Coastal Zone Management Authority on 19.05.2015, wherein under the heading of Fly Ash Management, it had been informed that there would be no ash disposal in sea/river and 100 per cent dry fly ash collection in silos of one day (24 hrs) ash generation capacity of the proposed plant and also that bottom ash would be disposed through dry bottom ash handling system and in case of emergency, bottom ash will be disposed of in the ash Dyke of NCTPS.

19. The 2<sup>nd</sup> respondent had sent the copy of the proposal with the reports, details, HTL map and this was considered by Tamil Nadu Coastal Zone Management Authority in their 83<sup>rd</sup> meeting of Tamil Nadu State Coastal Zone Management Authority held on 19.05.2015. On the basis of the recommendation of the Tamil Nadu State Coastal Zone Management Authority, the Government of Tamil Nadu recommended the proposal of TANGEDCO to Chairman, National Coastal Zone Management Authority and MoEF&CC. In the Letter No. 10173/EC.3/2015 dated 16.06.2015 of the Principal Secretary to Government also, it has been mentioned that TANGEDCO had informed that the proposed project would be taken within the existing NCTPS complex as an expansion unit. The project presentation and additional information was made by TANGEDCO before the Expert Appraisal Committee of Government of India on

27.11.2015. Under Sl. No. II- Revised Layout of NCTPS complex prepared by the Institute of Remote Sensing, Anna University, Chennai various units viz. Stage I (3x210 MW), Stage II (2x600 MW) and facilities viz. Coal conveyor, cooling water inlet/outlet and Bottom Ash disposal line to the ash dyke of NCTPS along with the Demarcation of HTL/LTL and CRZ Delineation for NCTPS Stage III (1x800 MW) at Ennore village, Ponneri Taluk, Tiruvallur District are depicted and under Sl. No. X- Explore various avenues for utilisation of bottom ash, wherein it has been mentioned that the bottom ash of the proposed plant would be collected through dry bottom handling system and used for brick manufacturing and road laying purpose and excess, if any, disposed into the existing ash dyke of NCTPS. From the presentations submitted, it was contended that ash pipe line for the project using the ash dyke of NCTPS has been furnished to MoEF&CC.

20. The Rapid Environment Impact Assessment Study for the project was made by NABET accredited environment consultant, M/s Ramky Enviro Engineers Ltd, Hyderabad and submitted by TANGEDCO to MoEF&CC for obtaining Environmental Clearance and CRZ clearance. After considering the documents produced and the project proposal, the 1<sup>st</sup> respondent issued Environmental Clearance and CRZ clearance for the above said project on 20.01.2016 with various conditions. It was mentioned in the Environmental Clearance itself that it is an expansion by addition of 1x800 MW (Stage III)

of North Chennai Thermal Power Plant and they were carrying out the work strictly in accordance with law. The issuance of Environmental Clearance was published in the newspaper on 03.02.2016 in English and Tamil and the same was circulated in the offices of local authorities.

21. They obtained consent to establish from Tamil Nadu Pollution Control Board with various conditions vide Consent Order No. 170124499798 dated 13.04.2017 under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and Consent Order No. 170124499798 dated 13.04.2017 under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981. They have started the work only after obtaining necessary clearances and permissions. The reliefs claimed will not come under Section 14 and 18 of the National Green Tribunal Act, 2010 and any grievance will have to be filed within a period of six months under Section 14 (3) of the Act with an extended period of 60 days. The work has been started by the 1<sup>st</sup> respondent in the year 2016 and the application was filed only on 30.05.2021 which is long after the period provided.

22. As per Environmental Clearance conditions under 7B. General Conditions-Sl. No.(VIII), utilization of 100% fly ash generated shall be made from 4<sup>th</sup> year of operation only. As mentioned in the fly ash utilization of the Rapid EIA report, fly ash utilisation will be met at 50 per cent within target date of one year from the date of commissioning, 70 per cent within target date of two years from the date of commissioning, 90 per cent within target



date of three years from the date of commissioning and 100 per cent within target date of four years from the date of commissioning. So during initial stage of operation of the unit, fly ash utilisation system is required for wet disposal to ash pond in slurry form, for which pipeline is essentially required.

23. It was clearly mentioned in the Environmental Clearance that ash pond water will be collected, treated and reused for slurry making. A Recovery Water Pump House was located near ash dyke of NCTPS with one number recovery water pipe line will be established. The decanted ash water is collected in the Recovery Water Pump House and pumped into the ash water sump located inside the power plant through recovery water pipe line for a length about 2.8 km as shown in the EIA report and CRZ delineation map of Anna University referred to earlier.

24. No Objection Certificate from 3<sup>rd</sup> respondent-PWD was obtained and a lease agreement was executed for construction of bridge for crossing the water bodies coming within CRZ I B zone Buckingham Canal and Kosasthalaiyar River up to the existing ash dyke of NCTPS for the disposal of the ash. As per MoEF&CC Notification No. 19-31/2015-IA-III, GOI IA-III Division Circular dated 27.02.2015 in CRZ areas, permissible activities, which are integral and ancillary to the execution of approved projects including that of construction of temporary bridges over creeks or backwaters, and temporary make-shift infrastructure/construction required for completing the main permitted activity will not be a deviation from the conditions of

approval as they are minor in nature and without damaging the environment. The temporary approach road with ash/other material shall also be removed as per PWD lease agreement after construction of the bridge for lying of ash slurry pipeline and hence there is no encroachment and reclamation of Kosasthalaiyar River and flood plains. No damage has been caused to environment on account of laying down the pipeline for disposal of ash from the pond to the existing ash dyke of NCTPS. They denied the allegations regarding nature of impact alleged. According to them, the necessity for laying down pipeline for carrying ash slurry to the ash pond for emergency needs was mentioned in the application for Environmental Clearance and study was also conducted for that purpose and this was known to the authorities as well. There will not be any leakage caused by laying down of pipeline as apprehended by the applicant because of the quality of pipeline now used.

25. The construction of the temporary bridges etc will not amount to deviation from the Environmental Clearance granted. For line no. 1 entire length of 5129 meters of ash slurry disposal has been erected in August, 2020 and the entire 100 per cent work has been completed. For procurement of new cast Basalt lined pipe, purchase order has been placed with M/s Turbo Engineers, Coimbatore for a length of 10,452 meters for a value of Rs. 8.36 crores with a delivery period of 10 months. About 7392 meters of new pipelines have been supplied and the balance quantity was delayed due to COVID-19 which came

into effect from March, 2020. Line No. 3 (Total Length of 4942 meters) pipe has been replaced with new pipes from ash dyke to NCTPS gat for about 3892 meters out of 4942 metres and 78.7 per cent work has been completed. As regards line No. 2 (Total Length of 5511 meters) worn out old pipes dismantling works is in progress and replacement of pipes with the available quantity 3500 metres will be taken up shortly.

26. In the meantime, the suppliers, M/s Turbo Engineers vide their letter dated 27.04.2021 and 10.06.2021 informed their inability to supply the balance quantity due to COVID-19 second wave and huge quantity of cost escalation. Action is being taken for getting supply of the same. Huge amount has been spent for the purpose of pipes and it is being delayed due to non-availability of tenderers. They have not committed any illegality and as such there is no merit in the application and they prayed for dismissal of the application.

27. The 1<sup>st</sup> respondent filed reply affidavit contending that EIA Notification clearly shows that wherever Environmental Clearance is required, then they will have to obtain prior Environmental Clearance before starting the work. For this project online proposal was received on 26.05.2015 and after considering the same, TOR was issued for preparation of EIA/EMP report on 28.05.2012 and thereafter the validity of TOR was extended upto 27.05.2015 on 08.09.2014. The State Coastal Zone Management Authority held detailed discussion on the said project in its meeting dated 19.05.2015 and after



due deliberations, they recommended CRZ Clearance for foreshore facilities on 16.06.2015 and the recommendations of the Coastal Zone Management Authority dated 16.06.2015 is annexed as R-1 along with the counter.

28. The reconstituted Expert Appraisal Committee, (Thermal Power) in its 38<sup>th</sup> meeting held on 25<sup>th</sup> -26<sup>th</sup> June, 2015 based on information submitted by the project proponent in EIA/EMP report provided during the presentation made before the Expert Appraisal Committee and they sought certain information and documents including information on utilisation and disposal of fly ash and also observed that it will consider the comments/remarks of CRZ sector of the Ministry regarding the said proposal. EAC deferred the proposal. Copy of the minutes 38<sup>th</sup> meeting of EAC was produced as R-2 along with the counter.

29. The proposal was again taken by EAC, (Thermal Power) in its 46<sup>th</sup> meeting held on 26<sup>th</sup> -27<sup>th</sup> November, 2015 wherein the project proponent provided following information in response to the observations made by the Committee in its previous meeting pertaining to utilization and disposal of fly ash which is reproduced below:

“(x). Regarding fly ash utilisation, at present, TANGEDCO is disposing the fly ash by allotment to the cement companies and the companies have established silos to collect the fly ash from the power plant. The bottom ash is being supplied to the brick manufacturing/SSI units for making fly ash bricks. Open tender system is being adopted to allot the fly ash to the companies. An MOU executed with M/s Dalmia Cements (Bharat) Ltd. Dalmiapuram, Tamil Nadu for off take of fly ash from the proposed Stage III (1x800 MW).

(xi) Regarding bottom ash utilisation, the bottom ash of the proposed plant will be collected through dry bottom handling system and used for brick manufacturing and road laying

purposes. Excess, if any, will be disposed through existing ash dyke of NCTPS.”

30. The Committee noted that EAC (CRZ) has recommended to grant CRZ Clearance for the following foreshore facilities for the aforesaid thermal power plant:

- i. Coal conveyance should take place in closed conveyor and that there could be no open stacking of the coal in the CRZ area.
- ii. The intake water pipeline should be laid as per provisions of CRZ Notification, 2011.
- iii. Disposal of hot water shall meet TNSPCB norms.
- iv. Water temperature should be monitored at outlets of each of the unit (3 phases) and also at pre-cooling channel joining Ennore creek.

31. A copy of the same was produced as annexure R-3.

32. On the basis of the clarifications and documents produced, the Expert Appraisal Committee recommended the project for grant of Environmental Clearance and CRZ Clearance, subject to compliance of the conditions of EAC (CRZ) and following additional specific environmental safeguard conditions:

- I. Explore the feasibility of multiple distributing point for the discharge of cooling water into pre-cooling channel and also the widening of the pre-cooling channel.
- II. PP shall endeavour to enter into MoUs with NHAI, Associations of Cement Industries and Municipal Authorities for ensuring full of ash utilization.
- III. As committed, FGD shall be installed to ensure emission below threshold limits.

33. On the basis of the recommendations made by the EAC, the MoEF&CC granted Environmental Clearance vide their letter No. J-13012/14/2012-IA. II (T) dated 20.01.2016 under the provisions of the EIA Notification, 2006 with certain general as well as specific conditions and the Environmental Clearance so granted is produced as annexure R-4. Following conditions addressing the environmental concerns in the Environmental Clearance granted is reproduced below:



*“6. Fly ash and bottom ash would be collected and stored in the silos and supplied to cement/ brick industries for manufacturing cement and bricks. 100% Dry Fly ash Collection will be done by providing Pressurized Dry Fly ash Collection System. The fly ash from the existing Units is being sold by e auction and the same is proposed for the instant Unit. An MOU is executed with N /s Dalmia Cements (Bharat) Ltd, Dalmiapuram, Tamilnadu for off take of fly ash from the proposed NCTPS Stage III (1x800MW). Ash pond water will be collected, treated and reused for slurry making.*

*7. (A.) Specific Condition:*

*(viii) All the recommendations and conditions specified by Tamil Nadu Coastal Zone Management Authority (TNCZMA) vide letter No. 10173/EC.3/2015-1 dated 16.06.2015, shall be complied with.*

*(xi) Construction activity shall be carried out strictly as per the provisions of CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.*

*(xxi) Monitoring of surface water quantity and quality shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall also be undertaken and results/findings submitted along with half yearly monitoring report.*



(xxiii) No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up / operation of the power plant.

(xxxi) Marginalized section of society particularly traditional fishermen communities shall be identified based on 2011 population census data and socio-economic study of the various strata of families such as those carrying out subsistence fishing, commercial fishing etc. shall be carried out and impact on their livelihoods shall be assessed separately. Accordingly, sustainable welfare scheme/measures shall be undertaken and status of implementation shall be submitted to the Regional Office of the Ministry within six months.

(xxxiv) Fugitive emission of fly ash (dry or wet) shall be controlled such that no agricultural or non-agricultural land is affected. Damage to any land shall be mitigated and suitable compensation provided in consultation with the local Panchayat.

(xxxv) Fly ash shall not be used for agricultural purpose. No mine void filling will be undertaken as an option for ash utilization without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case, the option of mine void filling is to be adopted, prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the State Pollution Control Board and implementation done in close co-ordination with the State Pollution Control Board.

(xxxvi) Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Mercury and other heavy metals (As, Hg, Cr, Pb etc.) shall be monitored in the bottom ash. No ash shall be disposed off in low lying area.

7. (B.) General Conditions:

*(viii) Utilization of 100% Fly Ash generated shall be made from 4th year of operation. Status of implementation shall be reported to the Regional Office of the Ministry from time to time."*

34. The inspection report submitted before the Tribunal on 15.09.2021 clearly shows that laying a pipeline for transmitting slurry across Kosathalaiyar backwater has not been covered under the clearances granted. The Joint Committee has given certain recommendations which may be considered by this Tribunal and pass appropriate orders.

35. As per order dated 07.06.2021, when this Tribunal admitted the matter, appointed a Joint Committee comprising of (1) The District Collector, Tiruvallur District or a Senior Officer not below the rank of Assistant Collector or Sub Divisional Magistrate as deputed by the District Collector, (2) a Senior Officer from the Integrated Regional Office, Ministry of Environment Forest and Climate Change (MoEF & CC), Chennai, (3) a Senior Officer from Tamil Nadu Coastal Zone Management Authority (TNCZMA), Chennai (4) a Senior Officer from not below the rank of Superintending Engineer from Tamil Nadu Public Works Department and (5) Irrigation Department and (6) a Senior Officer from the Tamil Nadu Pollution Control Board (TNPCB) deputed by its Chairman to inspect the area in question and file a factual as well as action



taken report if there is any violation found with following Terms of Reference:

- i. The impact of construction of pipeline on riverine environment and also on environment in general.
- ii. Whether there is any violation of CRZ Notification, 2011 or 2019 whichever is applicable or EIA notification, 2006 as amended from time to time.
- iii. Whether the environmental clearance cum CRZ clearance granted for the unit has covered the work of laying pipeline for discharge of ash slurry in the Kosathalaiyar river basin,
- iv. Whether on account of the laying down of the pipeline, is there any damage caused to the environment and if so, what is the nature of damage caused and the remedial measures to be taken and also assess the environmental compensation for the damage caused to the environment.

36. In this matter, Joint Committee has filed its inspection report dated nil e-filed on 14.09.2021 which reads as follows:



1. We respectfully submit that the Appellant had filed Original Application No.122 of 2021(SZ) alleging certain irregularities in laying of pipelines along the Kosasthalaiyar river by the 4<sup>th</sup> Respondent the Tamil Nadu Generation and Distribution Corporation (TANGEDCO) and the 5<sup>th</sup> respondent, the North Chennai Thermal Power Station (NCTPS). It was alleged by the appellant though Environmental Clearance and CRZ clearance was obtained for this project, there was no specific permission granted under both these clearances for laying of pipelines across Kosasthalaiyar River for discharging of ash slurry. The appellant has also stated that even in the Environmental Impact Assessment (EIA) report, the place allotted for ash pond and disposal of ash slurry through pipelines at present by them have not been mentioned which is a gross violation of CRZ notification and also against the terms and conditions imposed while granting Environmental Clearance.

2. Based on the above, the applicant has sought the reliefs in the application by A) Directing the Respondents 1 to 5 to demolish the illegal structures constructed by the Respondents 4 & 5 for transporting ash slurry through pipelines across Backwaters of Kosasthalaiyar River B) To direct the Respondents 4 & 5 to replace the ageing pipelines for transporting ash slurry



from Stage-1 and Stage-2 Thermal Power Plants so as to prevent further contamination of environment.

3. It is further stated that in order to ascertain the genuineness of the allegations made in the application and the alleged violations of CRZ notification as well as the conditions granted in Environmental Clearance, the Hon'ble National Green Tribunal (SZ) in its order dated 07.06.2021 directed to constitute a Joint Committee comprising of (1) The District Collector, Thiruvallur District or a Senior Officer not below the rank of Sub-Divisional Magistrate or Assistant Collector as deputed by the District Collector (2) a Senior Officer from the Ministry of Environment, Forests and Climate Change (MoEF& CC), Integrated Regional Office, Chennai (3) a Senior officer from the Tamil Nadu Coastal Zone Management Authority (TNCZMA), Chennai (4) a Senior officer not below the rank of Superintending Engineer from Public Works Department (PWD) Irrigation Department (5) a senior officer from Tamil Nadu Pollution Control Board (TNPCB) deputed by its Chairman to inspect the area in question and submit a factual as well as action taken report if there is any violation found. The PWD/WRO will be the nodal agency for co-ordination.

4. The Committee was directed to ascertain (i) the impact of construction of pipeline on riverine environment and environment in general (ii) whether there is any violation of CRZ Notification 2011 or 2019 whichever is applicable or EIA Notification 2006 as amended from time to time (iii) Whether the Environmental clearance cum CRZ clearance granted for the unit has covered the work of laying pipeline for discharge of ash slurry in the Kosasthalaiyar river basin (iv) whether on account of laying down the pipeline, is there environmental damage caused any, environmental compensation if so what is the nature of damage caused and remedial measures to be taken and also assess the environmental compensation for the damage caused to the environment. The Committee is ordered to submit a report to the Hon'ble Tribunal on or before 23.07.2021.

5. In pursuance to the directions of the Hon'ble Tribunal in O.A.No. 122 of 2021 (SZ), the following Joint Committee members inspected the site on 14.07.2021 to submit the factual observed on the ground as below:

- a) Er.A.Muthaiya,  
Superintending Engineer, Water Resources Department / PWD, Chennai.
- b) Dr. C.Kaliaperumal,  
Director, Ministry of Environment, Forest & Climate Change (MoEF& CC), Chennai.
- c) Dr.P. Kamaraj,  
District Environmental Engineer, Tamil Nadu Pollution Control Board (TNPCB), Gummidipoondi, Thiruvallur District.
- d) Er.R. John Manoharan,  
Assistant Executive Engineer, Assistant Conservator of Forest (I/C), Department of Environment, Panagal Maligai, Chennai-15.
- e) Thiru.P.Selvam,  
Revenue Divisional Officer, Ponneri, Thiruvallur District.

6. The Committee had a preliminary discussion with the TANGEDCO & NCTPS officials before inspection and the following facts and figures have been furnished by them as below:

- i). Water is being used for pumping out the ash slurry generated by burning of coal into the ash pond, which is filtered, treated and put into reuse. The ash slurry will be having water and ash in the ratio of 12:1. Everyday about 48,000 Tons of wet ash slurry is being pumped into ash pond which contributes 3,300 Tons of Fly ash.
- ii). The ash pond is located about 5kms from the Thermal Plant sprawling at an area of 245 Hectares.
- iii). The total height of the earthen bund of the Ash pond is 7metre of which 3metre freeboard is available right now.
- iv). The total quantity of ash deposited was 65 Lakh cu.m out of which 22 Lakh cu.m have been already removed and transported. Hence left out with 43 Lakh cu.m of ash at present.

- v). Both the Stage-1 & 2 Thermal plants have been designed for 40% Wet bottom and hence generation of ash slurry is inevitable. Only the Stage-3 Thermal Plant is designed for a Dry bottom and hence ash will be disposed to the ash pond as a contingency plan in case of emergency only.
- vi). The pipelines of Stage-1 were commissioned during 1994-95 and hence more than 25 years old. They have become rustic, corroded and brittle with numerous cracks. There are total 8 Nos. of series of pipelines of which 5 Nos. carries ash slurry and 3 Nos. being used for recycling the filtered water.
- vii). Out of the above 5 Nos., Line 1 & 5 was replaced and got completed during August 2020. These pipes were brought second-hand from Ennore Thermal Power Station (ETPS). They are Cast Basalt-lined having an Outer diameter of 406mm and Inner diameter of 356mm. Replacement of Line 2 & 3 is in progress and 50% work has been completed till date. Line 4 is yet to be replaced. The total cost of replacement is Rs.95 Lakhs. The timeline for replacement of all the 5 Nos. pipelines is by December 2021 to comply with the orders of the Hon'ble Tribunal in Applications No.8 of 2016, 152 of 2016 & 198 of 2016.
- viii). Both the series of ash pipelines of Stage-1 & 2 comprising 13 Nos.(8+5) starts near the Stage-2 Entrance Gate outside, cross the adjoining Buckingham Canal and Backwaters by supporting bridges.
- ix). Laying of ash pipelines for Stage-3 is in progress at an estimated cost of Rs.8.36 Crores. The pipelines will be laid parallel to the existing pipelines of Stage-1 & 2. It cross the Buckingham Canal and the adjoining Backwaters by RCC supporting Bridges. Piling work for the supporting Bridges is in progress.
- x). Combined Environmental Clearance for expansion of 1 x 800MW North Chennai Thermal Power Plant (Stage-3) and CRZ clearance for foreshore facilities at villages of Ennore & Puzhudivakkam, Ponneri Taluk, Thiruvallur District was granted by the MoEF & CC dated 20.01.2016. It is valid up to 7 years from the date of issue i.e 19.01.2023.

7. It is also submitted that PWD/WRD accorded 'No Objection Certificate' vide Letter No.DB/T5(3)/NCTPP Stage-III Project TANGEDCO /2019/ Dated 12.09.2019 for the Proposed Construction of pipe carrying bridge across Buckingham canal & Backwaters for Stage-3 (1x 800 MW) Thermal Power Plant with specific terms and conditions. One such condition is to obtain clearances from Environment, PCB, CRZ etc., and other mandatory clearances if any before commencement of project by the TANGEDCO.

8. It is further submitted that the Joint Committee inspected the pipeline crossings across Buckingham Canal, Backwaters and the Ash Pond. Although leakage of fly ash from pipelines were not noticed at the time of inspection, accumulation of fly ash deposits still persists in Backwaters and Buckingham Canal. This is due to the leakage of ash slurry from the ageing pipes and also direct letting out from the plant into these water bodies as well. As a result, Buckingham canal and backwaters have become a cesspool of ash. This has grossly reduced the exchange of tidal prism by chocking of flow due to ash deposits. The livelihood of fisher folks have been vastly affected and paved way for abatement of fishing activities. Mangrove patches vanished considerably due to the sedimentation of fly ash deposits. The ash pond is found deposited with huge quantum of fly ash to an average depth of about 4 metre. Excavation and transportation of fly ash from the ash pond is noticed and requires removal on large scale. The earthen bund is about 7 metre height surrounding the ash pond of which a portion of bund has been raised another 3 metre height to augment the storage of ash. Raising of bund for the entire circumference is incomplete. The pond is devoid of Geo-membrane lining. There are no mechanisms for spraying / trickling of water to control spreading of fly ash in the air causing air pollution. The laying of pipelines for Stage-3 is also observed but not in a continuous stretch.



9. It is submitted further that Environmental Clearance (EC) was granted to TANGEDCO for their expansion of 1 x 800 MW (Stage –III) of North Chennai Thermal Power Plant and CRZ Clearance for foreshore facilities at villages of Ennore&Puzhuvakkam in Ponneri Taluk of Thiruvallur District by the MoEF& CC dated 20.01.2016 based on the information, clarification, documents and presentation made by TANGEDCO subject to compliance of specific terms and conditions under the provisions of EIA Notification dated September 14, 2006 & subsequent amendments therein and CRZ Notification 2011. The conditions state that i) Disposal of hot water shall meet the Tamil Nadu Pollution Control Board (TNPCB) norms. ii) Water temperature shall be monitored at outlets of each of the unit (3 Stages) and also at pre-cooling channel joining Ennore Creek iii) Construction activity shall be carried out strictly as per the provisions of CRZ Notification 2011. No construction work other than those permitted in CRZ Notification shall be carried out in Coastal Regulation Zone. iv). The Sulphur and ash content of coal shall not exceed 0.8% and 8% respectively. If any change arises, the same should be got amended from the Ministry for EC. v) A long term study of radio activity and heavy metal contents on coal to be used shall be carried out by a reputed institute and thereafter in-built mechanism for continuous monitoring for radio activity and heavy metals in coal & fly ash shall be put in place vi) Adequate dust extraction system such as cyclones / bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided. vii) No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up / operation of the power plant.

At this juncture, it is submitted to the Hon'ble Tribunal that the fly ash generated from the Stage-1 & 2 Thermal Power Plants have greatly reduced the exchange of tidal prism with the sea due to chocking of ash deposit to considerable depth in Buckingham Canal & Backwaters . The fly ash contains heavy metals and potentially hazardous like Selenium, Arsenic, Mercury, Chromium, Lead, Silica and Titanium which leads to poisoning of Biota. These heavy metals are carcinogens and percolates into soil strata altering the ground water potential and non-compliance of potability. As a result, drastic depletion of flora and fauna has been visualized surrounding the Ennore Creek. Moreover, Mangrove patches vanished considerably leaving traces alone due to fly ash sediments. In view of the above, the TANGEDCO must strictly fulfill and comply with the conditions imposed in the Environmental Clearance and CRZ Clearance without violations and deviations for Stage-3 TPP unlike the environmental damage already caused by the operation of Stage-1 & 2 Thermal Plants due to ash deposit in the water bodies and the air-borne fly ash in the nearby villages causing respiratory diseases.

10. It was alleged in the application that the structures constructed by the Respondents 4 & 5 (TANGEDCO & NCTPS) for transporting ash slurry through pipelines across Backwaters of Kosasthalaiyar River is illegal and the same should be demolished by the Respondents 1 to 5 and also to direct the Respondents 4 & 5 to replace the ageing pipelines for transporting ash slurry from Stage-1 and Stage-2 Thermal Power Plants so as to prevent further contamination of environment.

On scrutiny of the EIA report, it is mentioned that the total ash generated from the power plant will be about 806.4 TPD (Tons Per Day) for each unit considering maximum ash content of 12% in the imported coal. The quantum of bottom ash generated and fly ash generated will be 161.28 and 645.12 Tons Per Day respectively considering calorific value of 6000 Kcal/Kg and unit heat rate of 2100 Kcal/Kg. 100% dry ash system is envisaged and fly ash will be disposed of to the nearby cement plants and it is proposed to utilize the existing ash dyke of NCTPS for bottom ash disposal in case of emergency only. Besides, Fly ash and bottom ash would be collected and stored in the silos and given to end users for manufacturing cement and bricks purposes, impact on the environment would be negligible.

As per orders in MoEF letter No.19-31/2015-IA-III dated 27.02.2015, it has been informed that in the project in the CRZ areas permissible activities which are integral and ancillary to the operation of approved projects including



that of construction of temporary bridges over creeks or backwaters, temporary make-shift infrastructure / constructions required for completing the main permitted activity, transportation of men and material by any mode, etc. will not be deviation from the conditions of approval because the project proponents often undertake such works either on the direction of local authorities or necessitated during construction which are very minor in nature serving the public at large without damaging environment.

Environmental Clearance issued states that Environmental clearance for expansion by addition of 1 x 800MW (Stage-III), North Chennai TPP and CRZ Clearance for foreshore facilities at Village Ennore & Puzhuvakkam, Taluk of Ponneri, District Thiruvallur, Tamil Nadu by M/s. Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO). As per the EC obtained, the CRZ clearance is granted only for construction of following foreshore facilities for this Stage-III TPP.

- i. Coal conveyor having length of 3.5 km and elevation of 6 m for coal transportation from Ennore Port to NCTPS Stage-III TPP.
- ii. Supporting trestles (Steel frames) for coal conveyor at about 6m / 8m from ground level.
- iii. Sea water intake from fore bay of NCTPS stage -II intake & outlet pipe to pre cooling channel of NCTPS for discharge with intake pipe length of 3 km and outlet pipe length of 1.5 km.
- iv. GRP (Glass Reinforced Plastic) pipes on the ground level for cooling Water inlet and coolant water outlet.

With regard to the replacement of ageing pipes, it is in progress and expected to be completed by December 2021 pursuant to the timeline framed by this Hon'ble Tribunal (SZ) in Applications No.8 of 2016, 152 of 2016 & 198 of 2016.

11. It is further submitted that the leakage of ash pipelines and accumulation of fly ash in Buckingham Canal and Backwaters has become an everyday phenomena and these facts have been already dealt by the Hon'ble

Tribunal (SZ) in Applications No.8 of 2016, 152 of 2016 & 198 of 2016. In this regard, the Hon'ble Tribunal (SZ) constituted an Expert Committee comprising Central Pollution Control Board (CPCB), IIT, Madras, Tamil Nadu Pollution Control Board (TNPCB) in its order dated 25.05.2019 to ascertain the status of fly ash / bottom ash disposal, damage caused to the environment, environmental compensation if so what is the nature of damage caused and remedial measures to be taken and also assess the environmental compensation for the damage caused to the environment. The Hon'ble Green Tribunal (SZ) passed orders dated September 11, 2017 for failure of Tamil Nadu Pollution Control Board (TNPCB) to contain the fly ash leak and the Tamil Nadu Coastal Zone Management Authority (TNCZMA) for failing to protect salt pans, mangroves from converting into ash ponds. Subsequently, Hon'ble Green Tribunal (SZ) passed orders dated December 21, 2017 to deposit the required funds to PWD/WRD for removing the accumulated fly ash from Buckingham Canal & Backwaters and also ordered TANGEDCO to replace the ash slurry pipes as early.

The Expert Committee findings indicated contamination of ground water wells and Backwaters with heavy metals in abnormal level. The air pollution level due to fly ash was alarming and exposed to respiratory diseases. The Expert Committee also noted NCTPS had no response protocol in the event of Dyke breach or pipeline burst. The Committee had also recommended non-permeable (Geo Membrane) lining for the Ash pond/ Dyke to avoid percolation of fly ash into soil strata there by reducing the ground water pollution.

12. Pursuant to the orders dated December 21, 2017 in Applications No.8 of 2016, 152 of 2016 & 198 of 2016 by the Hon'ble National Green Tribunal (SZ), TANGEDCO deposited a sum of Rs.28.50 Crores to PWD/WRD for the work of Dredging the Backwaters (Kosathalaiyar River) deposited with fly ash between NCTPS Main Gate up to KPL (Kamarajar Port Limited) Main Gate for a length of 2400 metres. In addition, they had also deposited Rs.66.23 Lakhs for removal of fly ash deposited in the adjoining Buckingham Canal between NCTPS Main Gate up to KPL Main Gate for a length of 2400 metres. The works have been completed in all aspects during December 2020. But the accumulation of fly ash still persist

in the completed stretch of Backwaters & Buckingham Canal and the orders of the Hon'ble Tribunal left un- addressed till date.

Further the TANGEDCO had remitted an amount of Rs.16.46 Crores as Environmental compensation to TNPC Board for the period 01.11.2004 to 12.11.2019 as assessed by the TNPCB based on the findings on the violations noticed by the Joint Committee constituted by the Hon'ble Green Tribunal(SZ) in O.A No.8 of 2016,152 of 2016 & 198 of 2016 with regard to the accumulation of fly ash in riverine environment.

13.The Hon'ble Green Tribunal (SZ) in its order dated 07.06.2021 directed the Joint Committee to ascertain the following facts given below:

- (i) *The impact of construction of pipeline on riverine environment and environment in general.*

The impact on environment has not been assessed yet due to the fact that the construction of pipelines across water bodies has not been commenced by TANGEDCO. Proper construction methodology must be adopted while crossing the river and canal so that damage to the riverine environment would be minimum and negligible. The water bodies must be restored to their original condition after the completion of work.

- (ii) *Whether there is any violation of CRZ Notification 2011 or 2019 whichever is applicable or EIA Notification 2006 as amended from time to time.*

Environmental Clearance issued states that Environmental clearance for expansion by addition of 1 x 800MW (Stage-III), North Chennai TPP and CRZ Clearance for foreshore facilities at Village Ennore & Puzhuvakkam, Taluk of Ponneri, Thiruvallur District, Tamil Nadu by M/s. Tamil Nadu Generation & Distribution Corporation Ltd.(TANGEDCO).As per the EC obtained, the CRZ clearance is granted only for construction of following foreshore facilities for Stage-III TPP.

- a) Coal conveyor having length of 3.5 km and elevation of 6 m for coal transportation from Ennore Port to NCTPS Stage-III TPP.
- b) Supporting trestles (Steel frames) for coal conveyor at about 6m /8m from ground level.
- c) Sea water intake from fore bay of NCTPS stage -II intake & outlet pipe to pre cooling channel of NCTPS for discharge with intake pipe length of 3 km and outlet pipe length of 1.5 km.
- d) GRP(Glass Reinforced Plastic)pipes on the ground level for cooling water inlet and coolant water outlet.

Hence it is pertinent that Environmental Clearance and CRZ Clearance was granted for foreshore facilities only and not for laying of pipes which is a gross violation as per CRZ rules 2011.

- (iii) *Whether the Environmental clearance cum CRZ clearance granted for the unit has covered the work of laying pipeline for discharge of ash slurry in the Kosasthalaiyar river basin.*

The Environmental Clearance cum CRZ clearance was granted for expansion of 1 x 800MW TPP and foreshore facilities only. On scrutiny, it was evident that laying of pipelines for transmitting slurry across Kosasthalaiyar Backwaters has not been covered in the present scope.

- (iv) *Whether on account of laying down the pipeline, is there environmental damage caused any, environmental compensation if so what is the nature of damage caused and remedial measures to be taken and also assess the environmental compensation for the damage caused to the environment.*


The TANGEDCO has started the work of laying pipelines for Stage-III and crossing across the Kosasthalaiyar River has not been taken up so far. Hence the environmental damage due to crossing of pipes has not been assessed for working out the compensation due to environmental damage. It was stated by the TANGEDCO in EIA report that 100% bottom ash and fly ash generated will be consumed by the end users and will be pumped to ash dyke in case



of emergency only. It must be ensured that new pipes must be laid intact to avoid any leakage of fly ash into the water bodies thereby environmental damage will be averted

It is, therefore, prayed that this Hon'ble Tribunal may take on record the above status report based on the observations made by the Joint Committee and pass appropriate and further orders as this Hon'ble Tribunal may deem fit and necessary in the circumstances of the case and thus render justice.

Assistant Executive Engineer,  
Assistant Conservator of Forest (i/c),  
Department of Environment,  
Panagal Maligai, Chennai-600 015.

  
Revenue Divisional Officer,  
Ponneri, Thiruvallur District.  
Representing  
District Collector,  
Thiruvallur District.

  
District Environmental Engineer,  
Tamil Nadu Pollution Control Board,  
Gummidipoondi,  
Thiruvallur District.  
Representing  
Joint Chief Environmental Engineer(M),  
Tamil Nadu Pollution Control Board,  
Chennai Zone.

  
Superintending Engineer,  
Water Resources Department / PWD,  
Chennai - 600 005.

  
Director,  
Ministry of Environment,  
Forest & Climate Change (MoEF&CC),  
Chennai - 600 006.

37. Thereafter, the matter was considered along with other connected matters.

38. The Tamil Nadu Pollution Control Board filed a report signed by the officials on 02.11.2021, e-filed on 03.11.2021 which reads as follows:



**REPORT FILED ON BEHALF OF THE 6<sup>TH</sup> RESPONDENT**  
**TAMIL NADU POLLUTION CONTROL BOARD.**

I, S. Ragupathi, S/o. R. Sanganan, Hindu, aged about 57 years, having office at No.76, Mount Salai, Guindy, Chennai-600 032, do hereby solemnly affirm and sincerely state as follows:-

1. I am the Joint Chief Environmental Engineer, Tamil Nadu Pollution Control Board and I am filing this Report on behalf of the 6<sup>th</sup> Respondents Board and as such I am well acquainted with the facts of the case as per records.

2. It is respectfully submitted that the Hon'ble National Green Tribunal(SZ), Chennai in its order dated.07.06.2021 in O.A.No.122 of 2021 directed as follows:

*"Para 15 : the members of the committee as well as the official respondents immediately through e-mail, so as to enable them to comply with the direction and for filing their independent response to the allegations made in the application and also for filing their independent report as directed by this Tribunal"*

3. It is respectfully submitted that, in compliance of the above Hon'ble NGT order, the area was inspected by officials of the JCEE(M), TNPCB, Chennai on 14.07.2021. During inspection, the following were observed:

- i) Water is being used for pumping out the ash slurry, generated by burning of coal in Stage I and Stage II of North Chennai Thermal Power Plants, into the ash pond, which is filtered and put into reuse. Everyday about 48,000 Tons of wet ash slurry is

being pumped into ash pond which contributes 3,300 Tons of Fly ash.

- ii) The ash pond is located about 5kms from the Thermal Plant sprawling at an area of about 245 Hectares.
- iii) The total quantity of ash deposited was 65 Lakh Cubic metre, out of which 22 Lakh Cubic metre has been already removed and transported. Hence left out with 43 Lakh cu.m of ash at present.
- iv) Both the Stage-1 & 2 Thermal Power Plants have been designed for 40% Wet bottom and hence generation of ash slurry is inevitable. Only the Stage-3 Thermal Power Plant is designed for a dry bottom and hence ash will be disposed to the ash pond as a contingency plan in case of emergency only.
- v) The pipelines of Stage-1 were commissioned during 1994-95 and hence more than 25 years old. They have become rustic, corroded and brittle with numerous cracks. There are total 8 Nos. of series of pipelines of which 5 Nos. carry ash slurry and 3 Nos. being used for recycling the filtered water.
- vi) Out of the above 5 Nos of pipelines, Line 1 & 5 were replaced and got completed during August 2020. These pipes are old used pipelines brought from Ennore Thermal Power Station (ETPS). They are Cast Basalt-lined having an outer diameter of 406 mm and Inner diameter of 356mm. Replacement of Line 2 & 3 is in progress with new Cast Basalt pipes, but for Line 4, the unit is yet to procure new pipes. The TANGEDCO has committed a timeline for replacement of all the 5 Nos. of pipelines by December 2021, to comply with the orders of the Hon'ble Tribunal in Applications No.8 of 2016, 152 of 2016 & 198 of 2016.
- vii) Both the series of ash pipelines of Stage-1 & 2 comprising 13 Nos.(8+5) starts near the Stage-2 Entrance Gate outside,



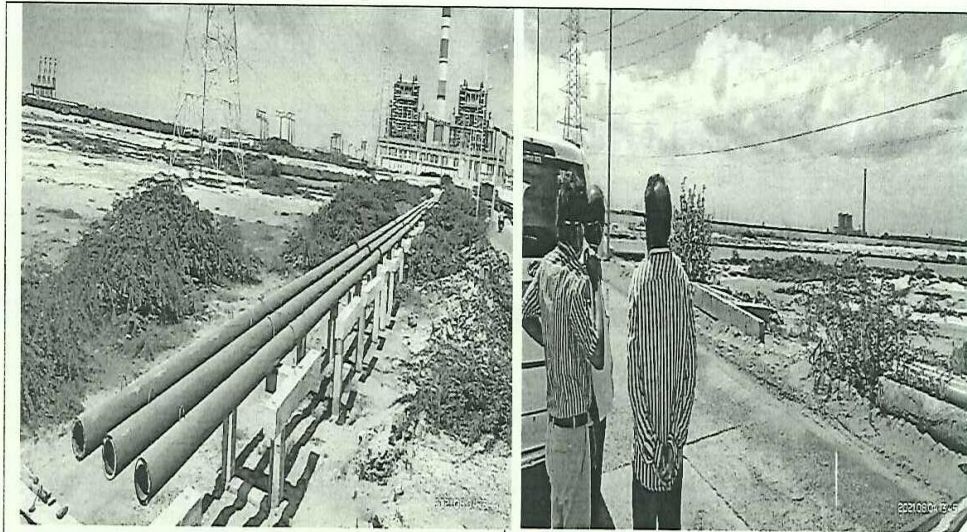
cross the adjoining Buckingham Canal and Backwaters by supporting bridges.

viii) The pipelines cross across Buckingham Canal, Backwaters and the Ash Pond. Although leakage of fly ash from pipelines were not noticed at the time of inspection, accumulation of fly ash deposits still persists in Backwaters and Buckingham Canal, due to the leakage of ash slurry from the ageing pipes. As a result, Buckingham canal and backwaters have become a cesspool of ash. The ash pond is found deposited with huge quantum of ash to an average depth of about 4 metre. Excavation and transportation of ash from the ash pond is noticed and requires removal on large scale. The earthen bund is about 7 metre height surrounding the ash pond of which a portion of bund has been raised another 3 metre height to augment the storage of ash. Raising of bund for the entire circumference is incomplete. The pond is devoid of Geomembrane lining. There are no mechanisms for spraying / trickling of water to control spreading of ash in the air causing air pollution.

ix) Laying of ash pipelines for Stage-3 (3 lines reported as one for Fly ash slurry, one for Bottom ash slurry and third one for recovery of water from Ash pond) was in progress and the pipelines will be laid parallel to the existing pipelines of Stage-1 & 2. It crosses the Buckingham Canal and the adjoining Backwaters by RCC supporting Bridges. Piling work for the supporting Bridges and laying of pipelines were stopped temporarily and it was reported that the unit has stopped the piling work and pipeline laying due to the case filed before the Tribunal.

  
JOINT CHIEF ENVIRONMENTAL ENGINEER  
TAMILNADU POLLUTION CONTROL BOARD,  
No.76, MOUNT SALAI, CHENNAI-600 032.





**Partially completed ash slurry pipelines for the M/s.NCTPS  
Stage-III**

4. It is respectfully submitted that Combined Environmental Clearance for expansion of 1 x 800MW North Chennai Thermal Power Plant (Stage-3) and CRZ clearance for the following foreshore facilities at villages of Ennore & Puzhuvakkam in Ponneri Taluk of Thiruvallur District has been granted by the MoEF & CC dated 20.01.2016 with certain conditions. The validity of EC is up to 7 years from the date of issue i.e 19.01.2023.

- a) Coal conveyor having length of 3.5 km and elevation of 6 m for coal transportation from Ennore Port to NCTPS Stage - III TPP.
- b) Supporting trestles (Steel frames) for coal conveyor at about 6 m/8 m from ground level.
- c) Sea water intake from fore bay of NCTPS stage –II intake & outlet pipe to pre cooling channel of NCTPS for discharge with intake pipe length of 3 km and outlet pipe length of 1.5 km
- d) GRP( Glass reinforced Plastic) pipes on the ground level for cooling water inlet and coolant water outlet.



5. It is respectfully submitted that vide para 6 of EC issued, it is mentioned that the fly ash and bottom ash would be collected and stored in the silos and supplied to cement/brick industries for manufacturing cement and bricks. 100% dry fly ash collection will be done by providing pressurized dry fly ash collection system.

6. It is submitted that on scrutiny of the Environmental clearance and CRZ Clearance, it is noticed that there is no specific mentioning about the laying of pipelines in CRZ area for conveying the bottom ash to the ash dyke or bring back the ash pond water from the ash dyke to the plant for reuse except the mentioning of "Ash pond water will be collected, treated and reused for slurry making".

7. It is respectfully submitted that the TANGEDCO must strictly fulfil and comply with the conditions imposed in the Environmental Clearance and CRZ Clearance without violations and deviations for Stage-3 TPP, unlike the environmental damage already caused by the operation of Stage-1 & 2 Thermal Plants due to ash deposit in the water bodies and the air-borne fly ash in the nearby villages causing nuisance and air pollution.

8. It is further submitted that the leakage of ash pipelines provided for NCTPP Stage 1 and accumulation of fly ash in Buckingham Canal and Backwaters has become an everyday phenomena and these facts have been already dealt by the Hon'ble Tribunal (SZ) in Applications No.8 of 2016, 152 of 2016 & 198 of 2016. In this regard, the Hon'ble Tribunal (SZ) constituted an Expert Committee comprising Central

Pollution Control Board (CPCB), IIT, Madras, TamilNadu Pollution Control Board (TNPCB) in its order dated 25.05.2019 to ascertain the status of fly ash / bottom ash disposal, damage caused to the environment, environmental compensation if so what is the nature of damage caused and remedial measures to be taken and also assess the environmental compensation for the damage caused to the environment. Also, Hon'ble Green Tribunal (SZ) passed orders dated December 21, 2017 to deposit the required funds to PWD/WRD for removing the accumulated fly ash from Buckingham Canal & Backwaters and also ordered TANGEDCO to replace the ash slurry pipes as early.

In pursuance to the orders dated December 21, 2017 in Applications No.8 of 2016, 152 of 2016 & 198 of 2016 by the Hon'ble National Green Tribunal (SZ), TANGEDCO deposited a sum of Rs.28.50 Crores to PWD/ WRD for the work of Dredging the Backwaters (Kosathalaiyar River) deposited with fly ash between NCTPS Main gate up to KPL (Kamarajar Port Limited) Main gate for a length of 2400 metres. In addition, they had also deposited Rs.66.23 Lakhs for removal of fly ash deposited in the adjoining Buckingham Canal between NCTPS Main gate up to KPL Main gate for a length of 2400 metres. Though the works have been reported to be completed in all aspects by December 2020, accumulation of fly ash still persist in the completed stretch of Buckingham Canal.

Further, the TANGEDCO has remitted an amount of Rs 16.461 Crores as Environmental Compensation for the period from



01.11.2004 to 12.11.2019 as assessed by the TNPC Board based on the findings of the violations noticed by the Joint committee constituted by the Hon'ble NGT in the above said cases.

Under the above circumstances, it is humbly prayed that this Hon'ble National Green Tribunal (Southern Zone) may be pleased to pass such order as it may deem fit and proper in this facts and circumstance of the case and thus render justice.

  
JOINT CHIEF ENVIRONMENTAL ENGINEER  
TAMILNADU POLLUTION CONTROL BOARD,  
No.76, MOUNT SALAI, CHENNAI-600 032,  
**BEFORE ME**

#### VERIFICATION

I, S. Ragupathi, S/o. Thiru. Sanganan , working as Joint Chief Environmental Engineer, Tamil Nadu Pollution Control Board, Chennai, do hereby verify that the contents of above report are true to the best of my knowledge through records.

  
JOINT CHIEF ENVIRONMENTAL ENGINEER  
TAMILNADU POLLUTION CONTROL BOARD,  
No.76, MOUNT SALAI, CHENNAI-600 032.

39. In the meantime, on the basis of the newspaper reports published in Times of India, Chennai Edition dated 01.07.2021 under the caption "Another Pipeline Leak at Ennore, Power Plant" and also another newspaper report published in 'New Indian Express, Chennai Edition dated 13.07.2021 under the caption "TANGEDCO Violating Rules in Ennore and also another newspaper report published in the same newspaper namely, The "New Indian Express" dated 15.07.2021 "TANGEDCO's Ennore SEZ Project Deviating From Approved Alignment" registered a Suo Motu matter as O.A. No. 162 of

2021. It was noted in the newspaper reports that TANGEDCO was deviating the line in violation of the rules and carrying out the project against the conditions imposed in the clearances granted apart from mentioning about breach of ash slurry pipe, causing spilling of large scale fly ash slurries in the residential area causing pollution.

40. On the basis of the newspaper report, while admitting the matter, this Tribunal appointed a Joint Committee consisting of (1) The District Collector, Tiruvallur District, (2) a Senior Officer from Ministry of Environment, Forests and Climate Change, (MoEF&CC), Integrated Regional Office, Chennai, (3) a Senior Officer/Scientist from Central Pollution Control Board (CPCB), Integrated Regional Office, Chennai, (4) The Superintending Engineer from Public Works Department (PWD) and Water Resources Organisation (WRO), Chennai, (5) a Senior Officer from Tamil Nadu Coastal Zone Management Authority (TNCZMA), Chennai and (6) a Senior Officer from Tamil Nadu Pollution Control Board as designated by its Chairman to inspect the area and submit a report with following Terms of Reference:

The committee is directed to ascertain as to whether i) there are any violations of conditions imposed in the clearances and permissions granted for Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO), II) whether there was any deviation from the proposed alignment of the pipe as permitted under the clearances granted without obtaining any approvals of modification of the same from the appropriate authorities, III) whether there was any leakage of ash pipe resulting in spillage of fly ash in the neighbouring areas and if so, what is the nature of damage caused on account of the same, IV) whether there was any air pollution or water contamination caused on account of the spillage of fly ash due to leakage of pipe lines, V) whether any unlawful dumping of fly ash is being done in the nearby

water bodies and if so, what is the nature of damage caused to the water bodies on account of the same and the remedial measures to be taken for restoring the damage caused to the water bodies.

The committee is also directed to assess the environmental compensation, if there is any damage caused to the environment on account of the alleged act of the Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) to be recovered from them including the expenses required for carrying out the remediation measures and restore the damage caused to the environment including the rectifying the contamination, if any, caused to the water body and the water quality in that area.

41. Apart from this, Tamil Nadu Pollution Control was also directed to file independent report regarding the pollution caused and the action taken by them in this regard.

42. 7<sup>th</sup> respondent filed a reply statement contending that they have verified the newspaper reports and in respect of similar issue another case is pending as O.A. No. 08 of 2016 where also a Committee was formed in which Central Pollution Control Board is a member and a detailed report on pipeline leak and status of surrounding area were submitted during August, 2019. The water is being used for pumping out the ash slurry generated from burning of coal in Stage I and Stage II of North Chennai Thermal Power Plants into the ash pond gets filtered there and the filtered water is reused. Everyday about 48,000 tons of wet ash slurry is being pumped into ash pond which contributes 3,300 tons of fly ash. Stage I and Stage II Thermal Power Plants have been designed for 40 per cent wet ash and generation of ash slurry is inevitable. The pipelines used for Stage I is operating since 1994-95 and they are more than 23 years old. They have become rusty and corroded with numerous cracks. There are total 8 numbers of series of pipelines in which 5 numbers carry ash slurry and 3 numbers being used



for recycling the filtered water. The ash pond is located about 5 kms from the Thermal Power Plant.

43. Out of 5 numbers of pipelines carrying fly ash slurry, Line 1 and 5 were replaced and got completed during August, 2020. These pipes were old used pipes brought from Ennore Thermal Power Station. They are Cast Basalt-lined having an outer diameter of 406 mm and inner diameter of 356 mm. Replacement of Line 2 and 3 is in progress with new cast basalt pipes, but for Line 4, the unit is yet to procure new pipes. They committed a timeline for replacement of all the 5 numbers of pipelines by December 2021 complying with the order of the Tribunal in O.A. No. 08 of 2016, 152 of 2016 and 198 of 2016.

44. It is also mentioned therein that the power plant takes breakdown maintenance work in the pipelines, whenever leaks are detected. The unit has patrol team which keeps patrolling the pipelines area and the pumps are stopped soon after leaks are detected. The present status of the replaced pipelines is detailed below:

S.No.	Description of pipeline	Outer diameter	Pipe thickness	Length of pipeline	Present status
1.	Ash slurry disposal line-1	406mm	6mm	5129m	Old pipeline. Tender invited. Scheduled for replacement by December 31, 2021
2.	Ash slurry disposal line-2	406mm	6mm	5405m	Replaced with second hand pipeline from ennore TPP
3.	Ash slurry disposal line-3	406mm	6mm	4942m	Replaced with new pipeline
4.	Ash slurry disposal line-4	406mm	6mm	4942m	Old pipeline. Tender invited. Scheduled for replacement by December 31, 2021
5.	Ash slurry disposal line-5	356mm	6mm	5577m	Replaced with second hand pipeline from ennore TPP

45. They have further mentioned that they propose to conduct ambient air quality monitoring and ground water monitoring in the nearby areas. The leakage occurred in pipeline 2 on 01.07.2021 at 07:20 AM and the pump was stopped at 07:25 AM, the portion of the pipeline damaged was repaired and the pipeline was put into service by 12:30 PM on the same day. They have further mentioned in the reply that after collecting the necessary details, the detailed report will be filed. As regards the violation of Environmental Clearance conditions and consent conditions, it is for the respective authorities to take action.

46. Respondents 9 and 10 have filed reply statement contending that they have reiterated more or less the contentions raised by them in the counter statement filed by them in O.A. No. 122 of 2021. As regards the deviation is concerned, they have categorically stated that they have not deviated. After detailed survey and geo-technical coordination of the site, a cold conveyor route was finalized proposing to cross water body and land portions encountered in the alignment in the shortest route crossing the water body. There was a development of place whereby M/s Chettinad Coal Yard and connected infrastructure facilities being developed by the said private body which was falling in the vicinity of the Ennore SEZ project's coal conveyor site route of TANGEDCO. So, they were constrained to act accordingly. TANGEDCO proposed to erect closed type belt coal conveyor. However, the pipe conveyor

system is subsequently preferred to avoid spillage of coal. Closed pipe Conveyor has to be erected in a smooth curved line and as such the routing of pipe conveyor was designed suitably in a curvilinear manner as per the technical requirement to erect pipe conveyor to avoid spillage of coal dust from environmental friendly approach. The length of conveyor from Ennore Port Limited to project site is 4500 meters, the length of conveyor under execution is only 4328 meters.

47. The general public from Kattukuppam village agitated and conducted dharna on 19.07.2021. After discussions with the people and to avoid law and order situation, the Thasildar, Ponneri after discussions with the Revenue Divisional Officer, Ponneri, requested TANGEDCO to suspend the work temporarily till the completion of peace meetings which was proposed to be held on 23.07.2021 and after the peace meetings, the work was resumed on 24.07.2021.

48. On the basis of the request made by the Revenue Officials, the work has been temporarily stopped on 27.07.2021 and the removal of filling sand has been commenced on 04.08.2021 and completed from Pler No. 12 to Pler No. 19 (172.5 meters removed out of total 230.3 meters). The removal of filling sand in the balance area (about 57.8 meters) is under progress and will be completed on or before 31.10.2021.

49. As regards, leakage is concerned, they admitted that there was leakage on 29.06.2021 at 07:20 AM in NCTPS-I, Ash slurry disposal line no. 5 near Cheppakkam location. Ash slurry



disposal pumping was stopped immediately and the pipeline flushed with sea water to clear the ash to avoid ash settling in the pipeline. The pipeline puncture was arrested by welding and the line was put in to use at 12:25 PM on the same day. The size of the puncture was very small and the leakage of ash slurry through this puncture is very less quantity. There was no air pollution caused on account of the same and there was no contamination of water as well. They denied the allegations regarding unlawful dumping of fly ash in nearby water bodies. However, spillage of ash that occurred due to unforeseen pipe leaks and for the same subject Tamil Nadu Pollution Control Board by its proceedings no.s T2/TNPCB/NGT/F.31005/RL/2019-2 dated 25.11.2019 had levied 16.461 crores as environmental compensation for ash pollution to the water bodies and the surrounding areas. 1,94,543m<sup>3</sup> ash settled around the ash pipeline have been removed. TANGEDCO paid an amount of Rs 28.50 crores for dredging of ash in Kosasthalaiyar River and Rs. 66.23 lakhs for dredging of ash in Buckingham Canal to PWD on DCW basis. PWD has dredged about approximately 4,35,000 m<sup>3</sup> of ash in the Kosasthalaiyar River and 89,600 m<sup>3</sup> in the Buckingham Canal.

50. They are fully complying with the recommendation nos. 1 and 3 made by the Joint Committee and following action has been taken in compliance of recommendation 1 and 3 which reads as follows:

- I. That submissions were made to the Committee during site inspection on 23.08.2021 and in subsequent discussions had in the District Collectorate, Thiruvallur District, held on 24.08.2021 under the Chairmanship of the District Collector, Thiruvallur District.
- II. That the report states - "TANGEDCO submitted to the committee that laying of new ash pipeline corridor was informed during public hearing and during presentations made to MoEF & CC but records for the same were not made available". In this connection, it is informed that the public hearing meeting for NCTPS Stage-III project was conducted on 05.03.2015 under the Chairmanship of the District Collector of Tiruvallur, along with the public and other Department officials. The proceedings of the public hearing were recorded. Wherein among other things, it has been very well intimated that in case of emergency the bottom ash would be disposed in the existing ash pond of NCTPS page No.3 of the recorded minutes of public hearing meeting - which is now submitted to the Committee.
- III. That the State level CZMA had very well been appraised about disposal of dry bottom ash in the Ash dyke of NCTPS in case of emergency- refer para.4 - (iv) of the report.
- IV. That the project presentation and additional details was made by the TNEB before EAC of GOI on 27.10.2015 and appraised of the route of the proposed bottom ash disposal line of NCTPS Stage-III project in addition to ash slurry pipelines of NCTPP Stage-1 and 2 crossing the Buckingham canal and backwater of Ennore creek to existing Ash dyke of NCTPS thro the CRZ delineation map prepared by Institute of Remote Sensing, Anna University/Chennai, showing ash pipe corridor in CRZ Zone IV- Refer para.4-X(Vi) of the report.Hence it is submitted that TNCZMA and MoEF& CC had been appraised with details and made available.
- V. That the CRZ map of Institute of Remote Sensing, Anna University/ Chennai, named 'Demarcation of HTL/LTL and CRZ

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delineation for NCTPP Stage-III (1 X 800 MW) Project' showing revised layout showing all the units of NCTPS and its facilities of the Ash Line corridor of NCTPS Stage 1, 2 and 3 crossing the water bodies coming within CRZ-IB zone Buckingham Canal and Kosasthalaiyar River up to the existing Ash Dyke of NCTPS for the disposal of ash through pipelines as being done at present in the other two phases of NCTPS Stage 1 and 2, has also been submitted then.

- VI. That as mentioned the Rapid EIA report, Fly Ash utilisation will be met at 50% within target date of one year from the date of commissioning, 70% within target date of two years from the date of commissioning, 90% within target date of three years from the date of commissioning and 100% within target date of four years from the date of commissioning. From the above Rapid EIA report, it could be seen that for disposal of Fly Ash during initial years of operation, Fly ash disposal system is required for wet disposal to ash pond in slurry form for which pipeline is essentially required. This has also been furnished in the Rapid EIA report which mentions that Fly ash disposal system will also contain a provision for wet disposal to ash pond in slurry form.
- VII. That the capacity of fly ash storage silos are of one day capacity (24 Hours) only and during contingency of truckers strike, etc. disposal of fly ash including bottom ash has to be disposed to the existing Ash Dyke of NCTPS through pipelines only for which the proposed construction of ash pipelines is required.
- VIII. That the Rapid EIA report and the aforesaid CRZ map also shows and mentions about the place allotted for the existing Ash Pond of NCTPS and the disposal of ash through pipeline as being done at present for the other two existing Power Plants. It has also been mentioned in the Rapid EIA report that it is proposed to utilize the Ash Dyke of NCTPS for bottom ash disposal in case of emergency.
- IX. That for disposal of Fly ash during initial years of operation, disposal through pipeline is essentially required.

- X. That laying off Ash Slurry pipeline for the project has also been informed to the MoEF& CC also as detailed below.
- XI. That the project presentation and additional information was made by TANGEDCO before the Expert Appraisal Committee of GOI on 27.10.2015 along with combined Layout of NCTPS complex prepared by the Institute of Remote Sensing, Anna University, Chennai, depicting various units of NCTPS Stage I, II and III which clearly shows the Ash pipe corridor containing Ash disposal slurry pipe line of Stage I, II and III crossing B'Canal, back water leading to existing NCTPS Ash dyke.
- XII. That to explore various avenues for utilization of Bottom ash, it has also been submitted that ash would be issued to brick manufacturing units and during emergency fly ash/Bottom ash would be pumped in the form of slurry to the existing Ash dyke of NCTPS.
- XIII. That in the presentation submitted to MoEF& CC on 27.10.2015, the Ash slurry disposal pipelines crossing B'Canal and Back waters in CRZ zone IV leading to Ash dyke has been clearly depicted.
- XIV. That from the foregoing, it is stated that the CRZ map and EIA report shows the pipelines and all the project details had been disclosed to the MoEF& CC and discussed in the public hearing held on 05.03.2015.
- XV. That as the CRZ map of Institute of Remote Sensing, Anna University/ Chennai and the Rapid EIA report are the required documents submitted to the State level CZMA and then the documents are submitted to the MoEF& CC for issuance of the EC and CRZ clearance, the work of laying of pipeline for discharge of ash slurry across the Buckingham Canal and Kosasthalaiyar River has been very well depicted while applying for the EC and CRZ clearance itself.
- XVI. That considering all the above MoEF& CC had issued combined Environmental Clearance and CRZ Clearance for the above NCTPP Stage-III project (Expansion unit of NCTPS) on 20.01.2016 with various conditions.



- XVII. That as per the EIA Report - "Ash water shall be collected, treated and reused for ash slurry making and 100% fly ash utilization will be met after 4<sup>th</sup> year of commissioning of the Unit".
- XVIII. That in the Environmental Impact Assessment report submitted to the District and State Coastal Zone Management Authority and MoEF& CC, it has already been informed that NCTPS Stage-III is only an expansion unit of NCTPS and existing ash dyke of NCTPS will be utilized for Stage-III for disposal of dry bottom Ash and fly ash during emergency condition. 100% Fly Ash utilization will be met only after 4<sup>th</sup> year of commissioning of unit. During first, second and third year of operation only 50%, 75 % and 90% of fly ash will be utilized and balance will be disposed to the Ash dyke of NCTPS. Hence Ash Slurry pipe lines are to be laid for collecting Ash water and reuse and to dispose Ash during initial years of operation and during emergency/ contingency situations arises during Truckers strike due to non- lifting of Fly Ash by off takers which will lead to stopping of the Power plant and in turn loss of generation since the power plant will be operated 24 hours to maintain the power grid.
- XIX. That the following paragraph was submitted to the committee –

*"As per CRZ 2011 rules under para.4(i) (a), water front and foreshore facility only requires specific CRZ clearance and the above ash slurry pipeline coming in CRZ zone IV is a permitted activity and not a water front/foreshore facility".*

Hence it is submitted that for those projects which are listed under this notification and also attract EIA notification 2006 for such projects clearance under EIA notification only shall be required subject to being recommended by the concerned state CZMA. On this score, EC itself is sufficient which covers both CRZ and Environmental clearance of Thermal power project since Ash slurry pipeline and Ash dyke are integral part of Thermal power plant.

- XX. That all the necessary, permission of State PWD (Authority of Inland water body) has been obtained before commencing the mandatory ash pipe line work of NCTPS Stage III in the existing ash corridor along the other side of patrolling road for the convenience of maintenance work.
- XXI. That with respect to the report of the Joint Committee, it is submitted that the finding of the committee that CRZ clearance was not obtained for the laying of pipelines for the transport of ash slurry is erroneous and unsustainable for the reason that the said construction of the pipeline is an allied activity related to the establishment of the approved NCTPS Stage-III project, for which the EC and CRZ clearances and approvals have already been accorded. In reference to the same, it is submitted that the MoEF & CC vide Notification No.19-31/2015-IA-III dated 27.02.2015, has observed that activities which are allied to the establishment of the approved project **including the construction of temporary bridges etc, will not amount to deviation from clearance that was granted.** Hence, it is submitted that the said construction of the pipeline is well within the norm.
- XXII. That since the Committee has recommended to resume the activity only after obtaining amendment to the existing CRZ clearance from a MoEF& CC, further action will be taken only after requesting a necessary clarification from MoEF in this regard and ensuring the amendment to the EC if necessary.
- XXIII. That the ash pipeline is an incidental / ancillary activity necessary for the operation of the thermal power plant and the same is permissible under the CRZ areas as per the notification of the MoEF& CC and CRZ clearance has been issued for the project.
- XXIV. That the project is an approved project and there is no deviation and as there is no deviation from the approved project



the erection of pipelines is not an illegal act. I further submit that there is no violation and there is no construction of illegal structures to carry pipelines to transport coal ash across the backwaters and main channel of the Kosasthalaiyar River.

- XXV. That, though there is no specific mention of CRZ clearance for ash slurry pipe lines of Stage-III project, there is no violation on the execution of ash slurry pipe lines of NCTPS Stage-III in the existing ash line corridor of NCTPS.

51. As regards recommendation no. 2 of the Joint Committee is concerned, they are taking all necessary steps and following action has been taken which reads as follows:



**Action Taken/Present Status on Recommendation -2:**

- a. That the ECHS works in the water body area has been temporarily stopped on 27.07.21. As requested by Revenue officials, EPC contractor, M/s.BHEL has been informed to remove the filling sand with immediate effect. Removal of filling sand has been started on 04.08.2021 and removal completed from Pier No.12 to Pier No.19 (19500/25000 cum) and removal of the filling sand in the balance area are under progress.
- b. That in order to comply the directions issued by the Hon'able NGT (SZ) committee, M/s. BHEL have been informed to take necessary action on war footing basis to cut the already cast piles located in the water body upto the river bed level including removal of dumped sand within October'31, 2021.

52. As regards recommendation no. 4 is concerned, they have mentioned that they have already committed to replace the old pipelines as per order passed by this Tribunal in O.A. No. 08 of 2016 and other connected cases and they have also given the details of the action taken which reads as follows:

**II. Action Taken/Present Status on Recommendation - 4:**

- I. **That in ASDL No.1** - (5129 mtrs) – Administrative approval for procurement of New cast basalt pipe has been submitted to TANGEDCO Headquarters and it is under process and will be completed by June 2022.
- II. **That in ASDL No.2** - (5511 mtrs ) - 1160 meters of new cast basalt pipe lines have been replaced with available 3498 metres pipes and work is being carried out on emergency basis and will be completed by December 2021.
- III. **That in ASDL No.3** – (4942 mtrs) - New cast basalt pipe has been replaced successfully from ash dyke to NCTPS gate and there are no leaks developed in this pipeline.
- IV. That 7390 meters of pipes have been supplied and being replaced out of 10452 meters of ordered quantity for Line 2 & 3 for a value of Rs.8.36 Crores .Supply of pipes has been delayed due to Covid-19& lock down.
- V. **That in ASDL No.4** – (4942 mtrs) - Tender for procurement of 4942m of new cast basalt pipes for a value of Rs. 4.32 Crores has been lodged due to non-acceptance of validity by the bidders, exorbitant steel price hike and non acceptance of LD terms of TANGEDCO dated 06.01.2021. Fresh administrative approval has been accorded by TANGEDCO Head quarters for Rs.7.3 crores. Procurement action is under process with Board Level Tender Committee at TANGEDCO Headquarters and will be completed by May 2022.
- VI. **That in ASDL No.5** – (5511 mtrs) - Administrative approval for procurement of New cast basalt pipe has been submitted to TANGEDCO Headquarters and it is under process and will be completed on June 2022.
- VII. That due to Covid pandemic, Nationwide lock down has been imposed from March 2020 to September 2020 as per the guidelines of Government of India. Afterwards partial lockdown was continued. At that time all the manufacturer have stopped/restricted their manufacturing activities.
- VIII. That since procurement process got delayed and consequently works are also getting delayed.



53. They have also given details of various actions taken for complying with the other recommendations made by the Joint Committee and they have undertaken to remove the fly ash disposals dumped in the Buckingham Canal and the Kosasthalaiyar River before March, 2022. They have also given details of nature of action taken and present status of recommendation no. 10 of the Committee which reads as follows:



**Action Taken/Present Status on Recommendation - 10:**

- i. **Kosasthalaiyar river:** That the PWD had desilted 4.35 lakhs m<sup>3</sup> of ash/silt from the Kosasthalaiyar river and dumped the silt on the banks. Out of which 2.5 lakhs m<sup>3</sup> have already been removed by M/s.TPIPL. The removal of balance 1.85 lakhs m<sup>3</sup> is under progress. The above removal work will be arranged to be completed before Mar'22.
- ii. **Buckingham Canal:** That PWD has desilted the Buckingham canal and dumped the silt on the banks. The total quantity desilted by PWD in Buckingham canal is about 89,600 m<sup>3</sup>. Out of which 70,000 m<sup>3</sup> have already been removed by M/s.TPIPL. The removal of balance 19,600 m<sup>3</sup> is under progress. The above removal work will be arranged to be completed before Mar'22.

**Kosasthalaiyar river [NCTPS-I main gate (Ch.20.00) to KPL main gate(Ch.22.40)]**

Quantity of ash present in the river as assessed by the previous committee in OA 8/2016	Quantity of ash due to leakage post committee inspection	Total ash present in river	Quantity of ash desilted/dredged	Storage of dredged material	Start & Stop date of desiltation	Balance quantity to be removed from Banks of Kosasthalaiya river	Ultimate utilization of desilted materials
3.25 lakhs m <sup>3</sup>	1.10 lakhs m <sup>3</sup> (assessed by PWD)	4.35 lakhs m <sup>3</sup> (assessed by PWD)	4.35 lakhs m <sup>3</sup>	4.35 lakhs m <sup>3</sup>	15.06.2020 to Dec'20	Out of 4.35 lakhs m <sup>3</sup> ash 2.50 lakhs m <sup>3</sup> ash lifted by M/s.TPIPL. Balance 1.85 lakhs m <sup>3</sup> ash lifting work is under progress.	Used for land filling by TPIPL near NCTPS-I ash dyke

**Buckingham canal [NCTPS-I main gate (Ch.20.00) to KPL maingate(Ch.22.40)]**

Quantity of ash present in the river as assessed by the	Quantity of ash due to leakage post committee inspection	Total ash present in river	Quantity of ash desilted/dredged	Storage of desilted material	Start & Stop date of desiltation	Balance quantity to be removed / desilted from Banks	Ultimate utilization of desilted materials
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previous committee in OA 8/2016							
77,331 m <sup>3</sup> (from Ch.20.00 to 22.40 Km)	56,669 m <sup>3</sup> (assessed by PWD) (From Ch.20.00 to 22.40 Km)	1,34,000 m <sup>3</sup> (assessed by PWD) (From Ch.20.00 to 22.40 Km)	89,600 m <sup>3</sup> (From Ch.20.80 to 22.40 Km)	89,600 m <sup>3</sup>	Nov'20 to Mar'21	Out of 89,600 m <sup>3</sup> ash 70,000 m <sup>3</sup> ash lifted by M/s.TPIP L. Balance 19,600 m <sup>3</sup> ash lifting work is under progress.	Used for land filling by TPIPL near NCTP S-I ash dyke

iii. That, further an estimate has been evolved to remove the ash deposited in Buckingham canal for 200 m length at pipeline crossing by NCTPS-II based on the letter received from the District Collector, Thiruvallur.

54. They have also undertaken that they will remit the Environmental Compensation of Rs. 4,12,20,000/- imposed to the Tamil Nadu Pollution Control Board. They have further submitted that quantum of compensation assessed by the Committee is very high, considering the service rendered by them by supplying electricity to the public. They have further submitted that they have already deposited Rs. 16.461 crores of environmental compensation as assessed in O.A. No. 08 of

2016 for the same cause. They have also mentioned that certain works have been done for the purpose of complying with the recommendations nos. 12, 13 and 14 of the Joint Committee report. So, they prayed for passing appropriate orders after considering their objections.

55. Apart from filing their counter, they have also filed response to the recommendation of the Joint Committee report which was already extracted in the reply affidavit and as such we are not extracting the same again.

56. As per order dated 24.09.2021, this Tribunal had considered the Joint Committee report e-filed on 23.09.2021 after extracting the same in Para 2 of the order. This Tribunal had directed the Committee to inspect the area again and ascertain as to whether the recommendations made by them have been complied with by respondents 9 and 10 in O.A. No. 162 of 2021 and if not what is the stage of remediation suggested by them to be carried out by respondent nos. 9 and 10 and directed them to file a further report.

57. Thereafter, the Joint Committee filed further report dated nil e-filed on 26.10.2021 which was extracted in Para 4 of the order dated 27.10.2021 which reads as follows:

#### 1. Preamble

It is respectfully submitted that a case, O.A.No.162 of 2021, has been Suo-Motu registered by the Hon'ble National Green Tribunal(SZ), Chennai on the basis of the newspaper report published in the "Times of India" Chennai Edition dated 01.07.2021, under the caption "**ANOTHER PIPELINE LEAK AT ENNORE POWER PLANT**" Residents suffering from Air Pollution, Water Contamination and also another newspaper report published in the "New Indian Express" Chennai edition, dated 13.07.2021 and 15.07.2021 under the caption "**TANGEDCO VIOLATING RULES IN Ennore**" and "**TANGEDCO's Ennore SEZ Project deviating from approved alignment**" respectively.



In all these newspaper report, the allegation was that the Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) has deviated the pipeline alignment in violation of the rules and carrying out the project against the conditions imposed in the clearances granted. Also, TANGEDCO constructing the bridge for supporting coal conveyor and sea water pipeline for proposed Ennore SEZ and for conveying bottom ash slurry from Stage III project to existing ash pond by dumping construction debris along the river course without getting CRZ clearance. Further, it has been alleged that there was leaks in the bottom ash slurry conveyance lines from NCTPS I which resulted large scale spillage into water bodies causing air pollution and water contamination. Also stated that the Controller and Auditor General's report had mentioned about the ash dumping is contaminating the ground water in those areas.

It is respectfully submitted that the Hon'ble Tribunal in the order dated.30.07.2021 directed vide,

**Para 9** - In order to ascertain the genuineness of the allegations made in the newspaper report and also the alleged violations, the Hon'ble Tribunal appointed a joint committee comprising of (1) The District Collector, Tiruvallur District (2) a Senior Officer from Ministry of Environment, Forests and Climate Change (MoEF & CC), Integrated Regional Office, Chennai, (3) a Senior Office/Scientist from Central Pollution Control Board (CPCB), Integrated Regional Office, Chennai, (4) The Superintending Engineer from Public Works Department (PWD) and Water Resources Organisation (WRO), Chennai, (5) a Senior Officer from Tamil Nadu Coastal Zone Management Authority (TNCZMA), Chennai and (6) a Senior Officer from Tamil Nadu Pollution Control Board as designated by its Chairman to inspect the area in question and submit a factual as well as action taken report if there is any violation found.

**Para 10** - The Committee is directed to ascertain as to whether i) there are any violations of conditions imposed in the clearances and permissions granted for Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO), ii) whether there was any deviation from the proposed alignment of the pipe as permitted under the clearances granted without obtaining any approvals of modification of the same from the appropriate authorities, iii) whether there was any leakage of ash pipe resulting in spillage of fly ash in the neighbouring areas and if so, what is the nature of damage caused on account of the same, iv) whether there was any air pollution or water contamination caused on account of the spillage of fly ash due to leakage of pipe lines, v) whether any unlawful dumping of fly ash is being done in the nearby water bodies and if so, what is the nature of damage caused to the water bodies on account of the same and the remedial measures to be taken for restoring the damage caused to the water bodies.

**Para 11** - The committee is also directed to assess the environmental compensation, if there is any damage caused to the environment on account of the alleged act of the Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) to be recovered from them including the expenses required for carrying out the remediation measures and restore the damage caused to the environment including the rectifying the contamination, if any, caused to the water body and water quality in that area.

It is submitted that in due compliance of the order of the Hon'ble Tribunal, the Joint Committee inspected the area in question and submitted a report to the Hon'ble Tribunal, during September 2021.

## **2. Orders of the Hon'ble Tribunal**

It is respectfully submitted that the Hon'ble Tribunal, Chennai in the subsequent order dated.24.09.2021 directed vide,

**Para 5** - In the mean time, the committee is directed "to inspect the area again and ascertain as to whether the recommendations have been made by the committee have been complied with by the respondents 9 and 10. If not, what is the stage of the remediation suggested by them to be carried out by the respondents 9 and 10 and they are directed to submit a further report as directed to this Tribunal on or before **27.10.2021**".

**The copy of the order is enclosed as Annexure-I.**



### 3. Submissions made the by NCTPS Stage I,II, III and IV(Ennore SEZ) to the Committee

In due compliance of the order of the Hon'ble Tribunal, the joint committee inspected the area in question and convened a meeting with NCTPS Power Plants officials on 20.10.2021 and in response to Hon'ble NGT order dated.24.09.2021, the NCTPS Stage I, II, III and IV (Ennore SEZ) have furnished the following information to the committee.

Table 1: Submissions made by M/s NCTPS and Ennore SEZ to the committee

Sl. No	Recommendations of the Committee vide report submitted to Hon'ble NGT during September, 2021	Submissions by NCTPS
1.	The TANGEDCO shall resume the activities pertaining to the NCTPS Stage III and Ennore SEZ Power Plants within the CRZ area in Kosasthalaiyar River/ Buckingham Canal/Backwaters only after obtaining amendment to the existing CRZ Clearance from MoEF&CC.	<p><b>NCTPS –III</b></p> <p>During the meeting, it was submitted that the Ash slurry pipeline work for NCTPS Stage III Project has very well been depicted in the CRZ map coming in CRZ IV, and the same had been submitted to the MOEF on 27/10/2015 itself and that the nature of work is not involving waterfront or foreshore facility and it is a permitted activity as per CRZ Rules 2011 and that as per para 4(i)-(b) of above CRZ 2011, for those projects listed under this notification and also attract EIA notification 2006, for such projects clearance under EIA notification only shall be required subject to being recommended by the concerned State CZMA. Project Presentation was made by TNEB(TANGEDCO) in the State Level CZMA on 19/5/2015 wherein it had been informed that 100 % dry fly ash collection in silos of one day (24 hours) generation capacity and also that bottom ash would be disposed through dry bottom ash handling system and in case of emergency, bottom ash will be disposed in the Ash Dyke of NCTPS.</p> <p>Further, it was submitted that ash pipeline is an incidental/ancillary activity necessary</p>



		<p>for the operation of the thermal power plant and the same is permissible under the CRZ areas as per the notification of MOEF &amp;CC and CRZ rules. Hence amendment to the existing CRZ clearance is not required.</p> <p>However, since the Committee has recommended to resume the activity only after obtaining amendment to the existing CRZ clearance from MOEF&amp;CC, necessary action/ clarification in this regard will be arranged to be obtained by NCTPS Stage III (Respondent 10) through TANGEDCO HQ (Project &amp; Environment wing), if necessary and that TANGEDCO will extend full cooperation to the Committee.</p> <p><b>NCTPS -IV (Ennore SEZ)</b></p> <p>It was reported that the construction works within the CRZ area has been stopped and the same will be resumed after getting necessary amendment from MoEF&amp;CC as directed by the committee.</p>
2.	The TANGEDCO shall expedite removal of debris and dredged material from Kosathalaiyar river and restore natural flow within October 31, 2021.	
	<p><b>NCTPS III</b></p> <p>Removal of the brickbat construction debris used to facilitate commencing piling for 8 nos. in the waterway area on both east and west side of the existing RCC bridge at the Kosasthalaiyar river back waters was started on 11/7/2021 itself and carried out during 8/2021 and about 15 m<sup>3</sup> cleared and stacked at a distance of about 100m and the same was shown to the Committee on 20/10/2021.</p> <p>Removal of balance brickbat construction debris of about 150 m<sup>3</sup> dumped in the land area was also requested to be cleared away from the site.</p> <p>The Committee informed to clear away the brickbat construction materials away from that area and utilized somewhere else for filling. It was submitted that the same will be cleared early and utilized for filling in low lying areas in the project plant premises. It was also informed to the Committee that there was no obstruction caused so far for the movement of fishing boats and during inspection also, fishermen boats were found ferrying through the back waters under the existing bridge without any obstructions.</p> <p><b>NCTPS -IV (Ennore SEZ)</b></p> <p>The ECHS works in the water body area has been temporarily stopped on 27.7.21.</p>	



As requested by the Revenue Officials, removal of filling sand has been started on 4.8.21 and removal completed from Pier No.19 (19500/25000 cum) and removal of the filling sand in the balance area are under progress. Also, action is being taken to cut the already cast piles located in the water body up to the riverbed level including removal of dumped sand within October 31<sup>st</sup> 2021.

The Filling Sand Removal Status in Backwater Area as on 20.10.2021.

Sl. No	Qty of Filling sand dumped in the water body(Cum)	Qty of Filling sand removed from in the water body(Cum)	Start date of Removal	Date of Completion	Present Point of disposal of Filling sand
1	25000	19500	04.08.2021	Still in progress	Nearby Stack Re claimer SR 1B & 1D

Ultimate mode of utilization /disposal of Filling sand :- For Enabling Works of Ennore SEZ Project work inside Plant Area.

Total Length of Sand filled = 230.30 m (PR-09 to PR-19)

Total Length of Filling Sand Removed = 172.50 m (PR-12 to PR-19)

3.	The TANGEDCO shall strictly fulfill and comply with the conditions imposed in the Environmental Clearance under the EIA Notification as amended and CRZ Clearance under the CRZ Notification as amended without violations and deviations for NCTPS Stage III and Ennore SEZ Power Plants unlike the environmental damage already caused by the operation of NCTPS Stage-I & II Thermal Plants due to ash deposit in the water bodies and the air-borne fly ash in the nearby villages causing nuisance and air pollution.	Assured by NCTPS Stage III and Ennore SEZ Power Plants to comply with the conditions imposed in the Environmental Clearance under the EIA Notification as amended and CRZ Clearance under the CRZ Notification as amended without violations and deviations.
4.	The TANGEDCO shall procure and replace the existing ash slurry pipe lines 1, 2, 3, 4 & 5 pertaining to the NCTPS Stage I with new cast basalt pipe before December 2021 as already committed to the Hon'ble National Green Tribunal in Applications No.8 of 2016, 152 of 2016 & 198 of 2016.	Ash Slurry Disposal Line (ASDL) No.1 - (5129 mtrs) – Administrative approval for procurement of New cast basalt pipe has been submitted to HQ and it is under process and will be completed by June 2022. ASDL No.2 - (5511 mtrs ) - 1160 meters of new cast basalt pipe lines have been replaced with available 3498 metres pipes and work is being carried out on emergency basis and will be completed by December 2021.



		<p>ASDL No.3 – (4942 mtrs) - New cast basalt pipe has been replaced successfully from ash dyke to NCTPS gate and there are no leaks developed in this pipeline.</p> <p>7390 meters of pipes have been supplied and being replaced out of 10452 meters of ordered quantity for Line 2 &amp; 3 for a value of Rs.8.36 Crores .Supply of pipes has been delayed due to Covid-19&amp; lock down.</p> <p>ASDL No.4 – (4942 mtrs) - Tender for procurement of 4942m of new cast basalt pipes for a value of Rs. 4.32 Crores has been lodged due to non-acceptance of validity by the bidders, exorbitant steel price hike and non acceptance of LD terms of TANGEDCO dated 06.01.2021. Fresh administrative approval has been accorded by TANGEDCO Head quarters for Rs.7.3 crores. Procurement action is under process with Board Level Tender Committee at HQ and will be completed by May 2022.</p> <p>ASDL No.5 – (5511 mtrs) - Administrative approval for procurement of New cast basalt pipe has been submitted to HQ and it is under process and will by completed on June 2022.</p> <p>Due to Covid pandemic, Nation wide lock down has been imposed from March 2020 to September 2020 as per the guidelines of Government of India. Afterwards partial lockdown was continued. At that time all the manufacturer have stopped/restricted their manufacturing activities.</p> <p>Hence procurement process got delayed and consequently works have also been delayed.</p>
5.	The TANGEDCO shall also procure and replace the retrieved pipes from ETPS utilized for ash slurry pipe lines 1 & 5 pertaining to the NCTPS Stage I with new cast basalt pipe to permanently resolve the slurry ash disposal into water bodies.	Administrative approval for procurement of New cast basalt pipe has been submitted to HQ and it will be completed by June 2022.

<p>6. The TANGEDCO is stopping the pumps soon after identifying leaks, followed by flushing with water and replacing the damaged portion of the pipe. However, the TANGEDCO is not taking any measures to clean up the area, where leak has taken place. The committee suggests that in addition to stopping the pumps, repairing the pipes, the TANGEDCO shall also take measures to clean up the area, where ash slurry has leaked, and transfer the ash it into ash dyke.</p>	<p>Work has been awarded for cleaning the area where ash leak occurs and to transport the ash to ash dyke.</p>
<p>7. From the log books, the committee observed that, pipeline leaks due to pipe burst/rupture of joints due to ageing of pipes are very common and frequently (average frequency of one leak/week) taking place in old pipelines. Apart from the leaks due to pipeline bursts/rupture, pinhole leakage is taking place in all three old pipelines. The TANGEDCO is not taking measures to rectify pinhole leakages. If timely action is not taken to rectify these pinhole leakages, it may lead to a major leakage. The committee submits that the TANGEDCO shall immediately rectify the pinhole leakages in the pipelines that are noticed by the patrolling team.</p>	<p>Whenever pinhole leakage occurs, timely action is being taken to stop the pump immediately as and when noticed and pinhole leakages are attended by providing patch plates.</p>
<p>8. The TANGEDCO is replacing the portion of the old damaged pipeline with pipes retrieved from Ennore Thermal Power Plant to arrest leakage. After replacement, the damaged pipelines are laying at the place of leak itself. The committee submits that TANGEDCO shall take measures to remove all the old damaged pipelines laying in the ground and keep it in stores and subsequently dispose it.</p>	<p>The old damaged pipe after replacement are being devoluted to NCTPS Store and in addition steps have been taken to devolute all the old damaged scattered pipe to NCTPS stores. More than 95% of the retrieved pipes have been devoluted to stores. Balance 5% will be devoluted within two days.</p>



9. The TANGEDCO shall carry out patrolling of ash slurry disposal pipe lines round the clock to notice and avert the leakages of pipe lines, so as to prevent the disposal of ash into Kosasthalaiyar River, Buckingham Canal etc. till the replacement of existing pipe lines.

Separate gang (consisting of 12 Nos.) with Jeep for Patrolling of Ash slurry disposal line to a stretch of 5.5 KM is being carried out round the clock to avert leakage of pipe lines, so as to prevent the leakage of ash slurry to the Kosasthalaiyar River and Buckingham Canal.

10 During inspection, the committee observed that the ash previously removed from Kosasthalaiyar River and Buckingham canal was stored near the point of excavation. During rainfall, the ash will get into river & canal again. The committee submits that the TANGEDCO & PWD shall ensure that the removed ash shall be transferred to ash dyke.

**Kosasthalaiyar river:** The PWD had de silted 4.35 lakhs m<sup>3</sup> of ash from the Kosasthalaiyar river and dumped the silt on the banks and this work was completed during the end of Dec'20. Out of which 2.5 lakhs m<sup>3</sup> have already been removed by M/s.TPIPL. The removal of balance 1.85 lakhs m<sup>3</sup> is under progress. The above removal work will be arranged to be completed before March 2022.

**Buckingham Canal:** The PWD has de silted the Buckingham canal and dumped the silt on the banks and this work was completed during the end of March 21. The total quantity de silted in Buckingham canal is about 89,600 m<sup>3</sup>. Out of which 70,000 m<sup>3</sup> have already been removed by M/s.TPIPL. The removal of balance 19,600 m<sup>3</sup> is under progress. The above removal work will be arranged to be completed before Mar'22.

Kosasthalaiyar river [NCTPS-I main gate (Ch.20.00) to KPL main gate(Ch.22.40)]							
Quantity of ash present in the river as assessed by the previous committee in OA 8/2016	Quantity of ash due to leakage post committee inspection	Total ash present in river	Quantity of ash desilted/dredged	Storage of dredged material	Start & Stop date of desiltation	Balance quantity to be removed from Banks of Kosasthalaiyar river	Ultimate utilization of desilted materials
3.25 lakhs m <sup>3</sup>	1.10 lakhs m <sup>3</sup> (assessed by PWD)	4.35 lakhs m <sup>3</sup> (assessed by PWD)	4.35 lakhs m <sup>3</sup>	4.35 lakhs m <sup>3</sup>	15.06.2020 to Dec'20	Out of 4.35 lakhs m <sup>3</sup> ash 2.50 lakhs m <sup>3</sup> ash lifted by M/s.TPIPL. Balance 1.85 lakhs m <sup>3</sup> ash lifting work is under progress.	Used for land filling by TPIPL near NCTPS-I ash dyke



Buckingham canal [NCTPS-I main gate (Ch.20.00) to KPL main gate(Ch.22.40)]							
Quantity of ash present in the river as assessed by the previous committee in OA 8/2016	Quantity of ash due to leakage post committee inspection	Total ash present in river	Quantity of ash desilted/dredged	Storage of desilted material	Start & Stop date of desiltation	Balance quantity to be removed/ desilted from Banks	Ultimate utilization of desilted materials
77,331 m <sup>3</sup> (from Ch.20.00 to 22.40 Km)	56,669 m <sup>3</sup> (assessed by PWD) (From Ch.20.00 to 22.40 Km)	1,34,000 m <sup>3</sup> (assessed by PWD) (From Ch.20.00 to 22.40 Km)	89,600 m <sup>3</sup> (From Ch.20.80 to 22.40 Km)	89,600 m <sup>3</sup>	Nov'20 to Mar'21	Out of 89,600 m <sup>3</sup> ash 70,000 m <sup>3</sup> ash lifted by M/s.TPIPL. Balance 19,600 m <sup>3</sup> ash lifting work is under progress.	Used for land filling by TPIPL near NCTPS-I ash dyke
Further an estimate has been evolved to remove 200 m length in 'B' Canal at pipeline crossing by NCTPS-II based on the letter received from the collector, Thiruvallur.							
11	The NCTPS Stage-I shall remit the environmental compensation of <b>Rs.4,12,20,000/- (Rupees Four crore twelve lakhs &amp; twenty thousand only)</b> assessed by the Committee for continuing the disposal of ash slurry in water bodies.			The leakages through Ash slurry disposal lines have been minimized now and the leakages of ash slurry in water bodies have been averted to the maximum extent. It is submitted that as all we know, TANGEDCO is a service oriented organisation which provides free power supply to agriculture services, weavers, huts, and also provides power supply to domestic consumers at subsidiary rates. Moreover TANGEDCO is now facing severe financial crunch. Hence, it is prayed and submitted that the assessment by the committee to remit the environmental compensation of Rs. 4,12,20,000/-(Rupees four crore twelve lakhs & twenty thousand only) is very huge and a burden to TANGEDCO. Hence it is requested that NGT committee may please reconsider and recommend to waive off the Environmental compensation. It is also submitted that already TANGEDCO have remitted an environmental compensation of Rs.16.461 Crores for NGT OA No. 8 of 2016 for the same cause.			



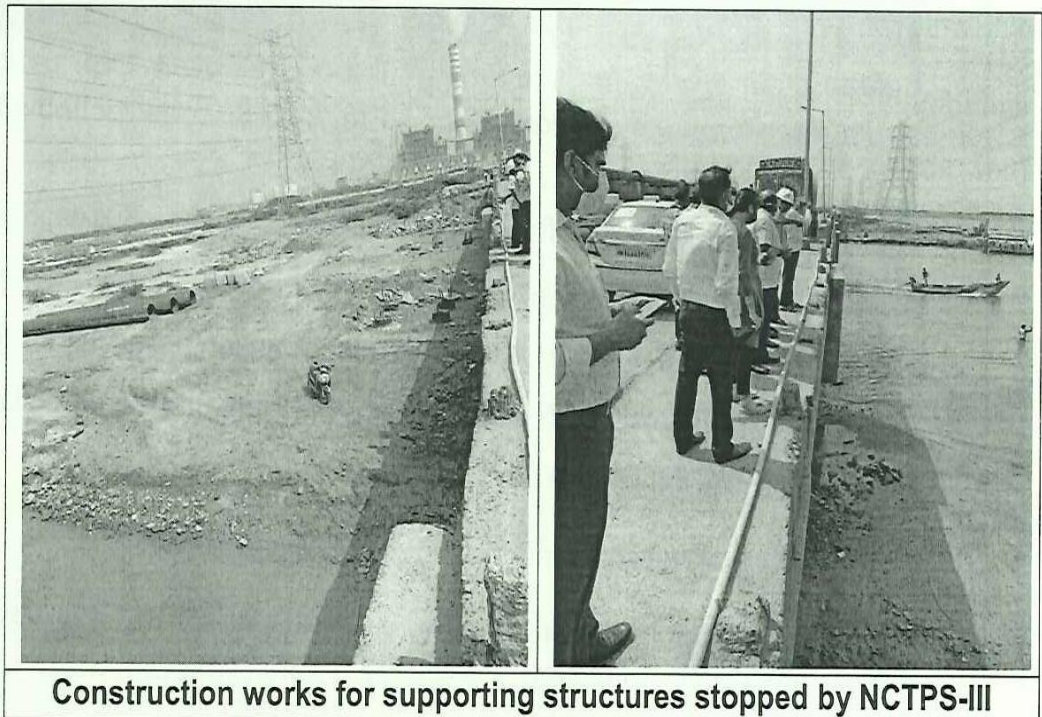
12	The unit shall provide dust nets/mesh towards Seppakkam village to minimize the impacts of fly ash dust and stack emissions.	The work was awarded for providing dust net/mesh of size 2mm X 2mm near Seppakkam Village to a length of 324 m and height of 3 m is issued to the contractor and the work will be commenced shortly and completed before Nov-2021.
13	The unit shall augment the air pollution control devices installed in Stage-I & II and ensure that stack emissions are complying with notified standards. The units shall ensure that OCEMS installed in Stage-I & II are working properly and real time actual data is transmitted to CPCB and TNPCB servers.	For NCTPS-1, Maximum number of ESP fields is kept in service in all the three units so as to maintain the emission within the standard norms by close monitoring of ESP fields. Every year the ESP internals have been overhauled and Renewal/rectification works are carried out if any damaged /worn out spares during AOH and available shutdown period. Hence the stack emissions are being maintained with notified new standards most of the time. It is ensured that, the online continuous emission monitoring system (OCEMS) installed in stage I & II are working properly. Since, it has been reported by the TNPCB/CPCB whenever the exceedance of emission norms. For NCTPS-2, Renewal of field internals of 42 Nos. (Unit 1&2) is under progress and will be completed by May 2022. Tender for FGD is under process.
14	The unit shall strengthen the earthen bund laid towards Seppakkam village and ensure that runoff from ash dyke or ash depositions are not carried to villages. The unit shall provide a drain before the bund so that runoff water is collected in drains and can be lifted back to ash dyke.	A temporary bund has been formed adjacent to Seppakkam Village to prevent the entry of water into the Village. For strengthening the earthen bund and forming toe drain, IIT Chennai have been appointed as Consultant. The report is received and the work will be commenced by Ennore SEZ Project/TANGEDCO.

#### **4. Observations of the Committee:**

The Joint committee inspected the area in question on 20.10.2021 and the following are submitted:

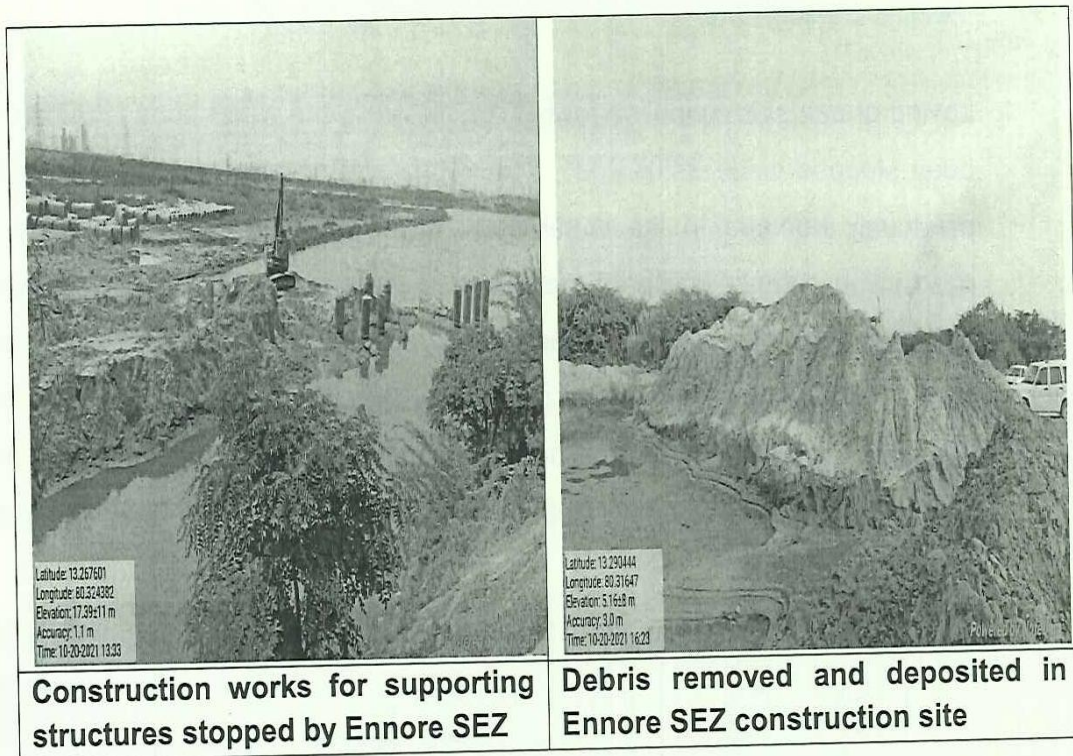


1. Laying of ash slurry pipeline for NCTPS III within the water body (CRZ area) has been stopped since 27.07.2021. The debris and construction material that were previously dumped in the water body is removed and presently there is no obstruction and fishing boats are sailing in the water body. The debris that were removed from the water body are deposited around 100m away from the river bank. Though the debris are not obstructing flow of water but during rainy season it may be washed into the river, hence committee suggests that the debris may be utilized or disposed safely in M/s NCTPS own land away from the water body by November 30, 2021.



2. Construction work of piles for the supporting structure for laying of coal conveyor / pipelines of NCTPS IV (Ennore SEZ) in the water body has been stopped. It was reported that during construction activity about 25,000 m<sup>3</sup> of silt / debris / dredged sand from M/s.KPL was dumped in the water body. In compliance to Hon'ble NGT orders M/s NCTPS stage-IV have started removal of silt / debris/ sand inside the water body since 04.08.2021. As on 20.10.2021 about 19,500 m<sup>3</sup> of quantity is removed from the water body and about 5500 m<sup>3</sup> of debris is yet to be removed. Removal of debris was in progress and by October 31, 2021 the unit shall completely remove the debris from water body as committed. The debris removed from the water body is stored in the premises of NCTPS IV (Ennore SEZ) construction site and it was reported that it would be used for leveling and land filling within the construction site.





3. The ash slurry pipelines from NCTPS Stage-I cross Buckingham Canal, Backwaters and Kosasthalaiyar River and reach the Ash Pond. On the day of inspection, line -1 & 3 were in service, line -2 under replacement, line-4 was under maintenance and line-5 was standby. The current status of replacement of ash pipelines is given in table 2:

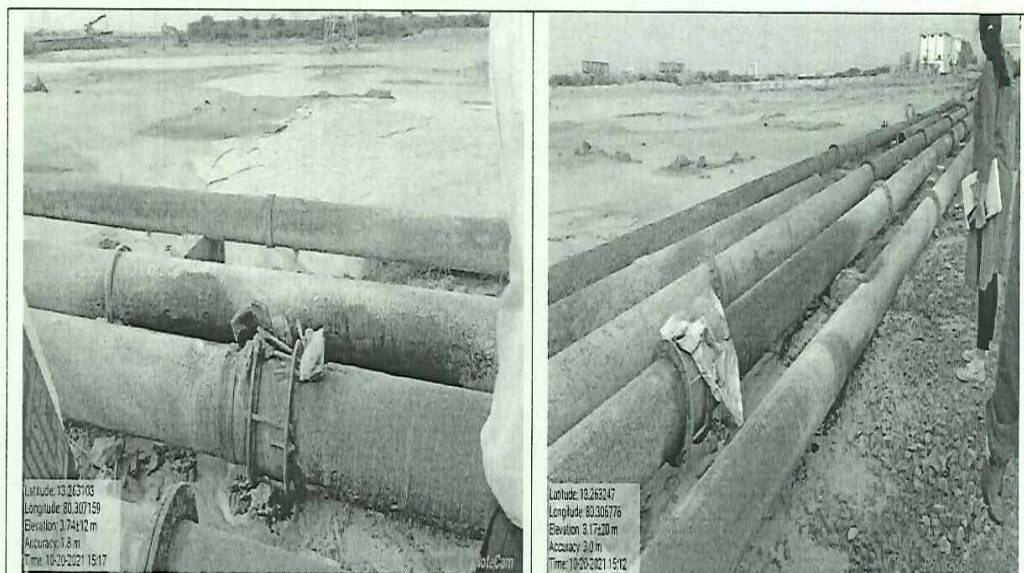
Table 2: Status of replacement of ash pipelines as on 20.10.2021

Sl. No.	Description of pipeline	Outer diameter	Pipe thickness	Length of pipeline	Present status
1	Ash slurry disposal line-1	406mm	6mm	5129m	Replaced with second hand pipes retrieved from ETPS.
2	Ash slurry disposal line-2	406mm	6mm	5511 m	Replacing with new pipe and reported to be completed before December 31, 2021.
3	Ash slurry disposal line-3	406mm	6mm	4942 m	Replacing with new pipe and reported to be completed before December 31, 2021.
4	Ash slurry disposal line-4	406mm	6mm	4942 m	Old pipeline. Tender invited for procuring new pipes.
5	Ash slurry disposal line-5	356 mm	6 mm	5511 m	Replaced with second hand pipes retrieved from ETPS.



4. Although minor leakages of ash slurry pipeline -4, at two places, were noticed at the time of inspection, no other major leakages were noticed. The unit is taking steps to arrest the leakages immediately so that the surrounding area is not contaminated. Measures taken by M/s NCTPS for early detection of leakages are as follows:

- A dedicated patrol team of 12 members (two vehicles) is appointed by M/s NCTPS to inspect/ watch the pipelines for any leakages. The patrol team is working 24x7.
- Soon after the leakages are detected, the pumping of ash slurry is stopped.
- The surrounding area is cleaned and the quantity of fly ash leaked is removed and transferred to ash dyke.
- During the meeting, the committee learnt that the top Management starting from Chief Engineer who is heading M/s NCTPS stage-I and senior officers are closely checking the records for leakages and to immediately take measures for arresting the leakages in the pipes



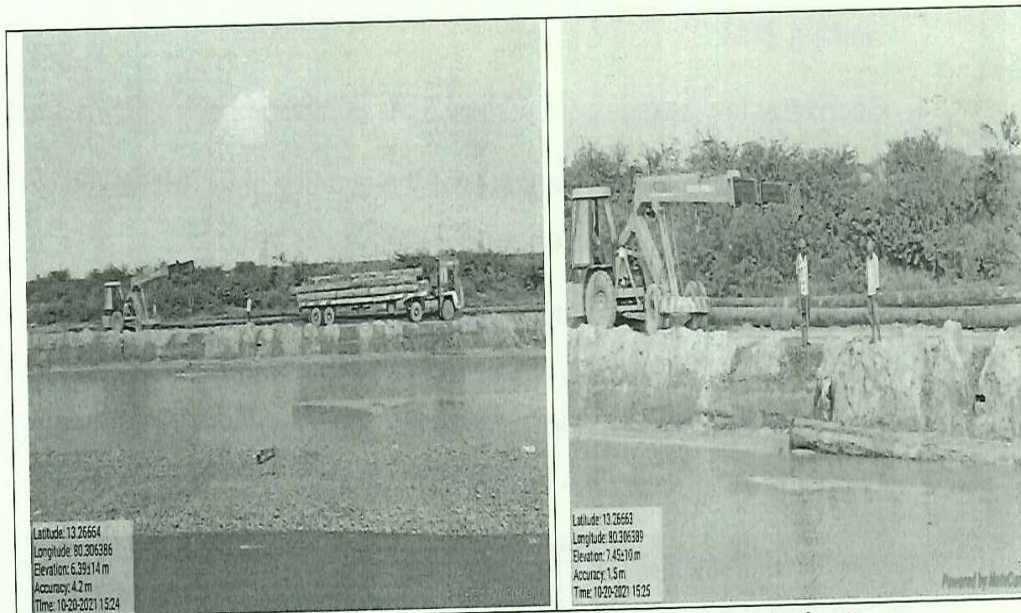
**Leakage of pipeline 4 observed during inspection**

5. Removal of earlier deposition of ash from the leaky pipeline areas and transportation of the same to ash pond was going on.
6. Previously when the leaking portion of the pipes were replaced with new ones, the old pipes were left near point of replacement itself. Due to these, many old rusted pipelines were found laying along the pipeline route. In compliance to Hon'ble NGT orders, M/s NCTPS Stage-I started removing of old pipes and same were being collected and transported to the storage yard inside the NCTPS Stage

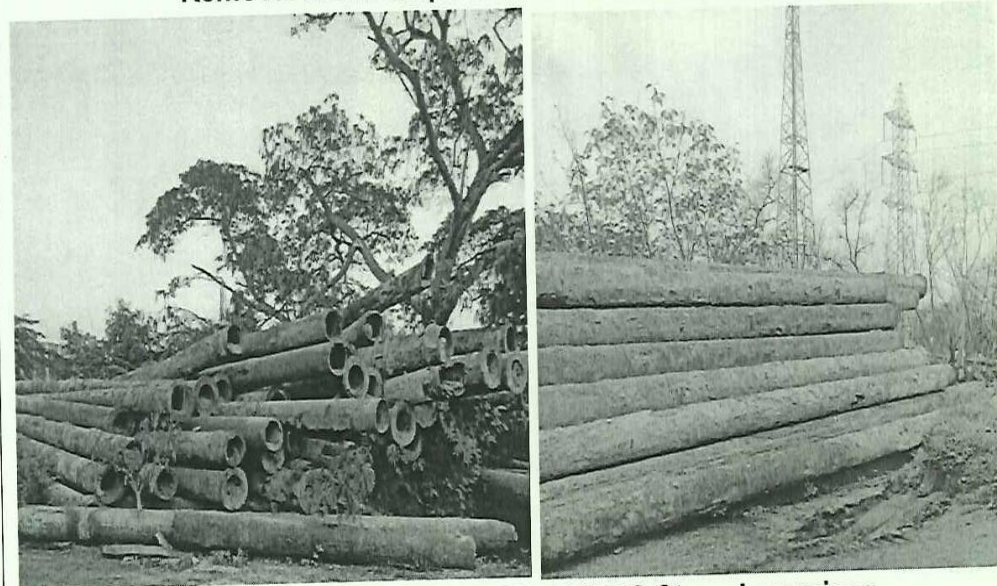


Table 3: Details of removed pipes from ash handling area

Sl.No	Month	Length of old ash pipelines removed (in metres)	Remarks
1	August, 2021	951	-
2	September, 2021	-	
3	October, 2021	2877	As on 26.10.2021
Total		3828	



Removal and transportation of old worn out pipes

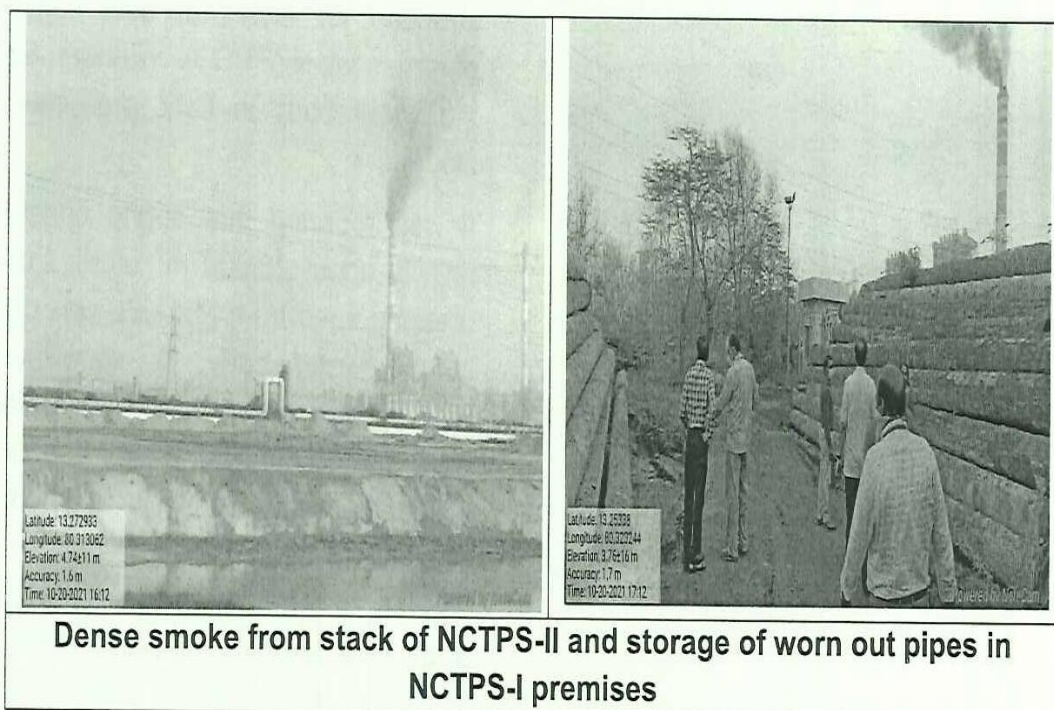


Removed pipes stored in M/s NCTPS Stage I premises

- Dense flue gas emission was noticed from the boiler stack of NCTPS Stage II at the time of inspection. Though the unit has installed Online Continuous Emission monitoring system to monitor PM, SO<sub>x</sub> and NO<sub>x</sub> emitted from the flue gas, it was observed that as per OCEMS readings, real time data is not transmitted to CPCB/ TNPCB and there is time delay. The committee observed that SMS alerts are



generated whenever exceedances are observed however the unit is yet to take corrective actions.



#### **5. Remarks & Findings of the Committee :**

<b>Sl. No</b>	<b>Recommendation of the Committee during September 2021</b>	<b>Remarks of the Committee based on inspection on 20.10.21</b>
1.	The TANGEDCO shall resume the activities pertaining to the NCTPS Stage III and Ennore SEZ Power Plants within the CRZ area in Kosathalaiyar River/ Buckingham Canal/Backwaters only after obtaining amendment to the existing CRZ Clearance from MoEF&CC.	During inspection, no construction activities were carried out inside the water bodies in CRZ area by NCTPS Stage III and Stage IV (Ennore SEZ).
2.	The TANGEDCO shall expedite removal of debris and dredged material from Kosathalaiyar river and restore natural flow within October 31, 2021.	Supporting structures for laying of pipeline for NCTPS III inside the water body in CRZ area have been stopped.  The debris and construction material that were previously dumped in the water body is removed and presently there is no obstruction and fishing boats are sailing in the water body. The debris that were removed from the water body are deposited around 100m away from the river bank. Though the debris are not obstructing flow of water but during rainy season it may be washed into the river, hence committee suggests that the debris



		<p>may be utilized or disposed safely in M/s NCTPS own land away from the water body by November 30, 2021.</p> <p>Construction work for the supporting structure for laying of coal conveyor / pipelines of NCTPS IV (Ennore SEZ) in the water body in CRZ area has been stopped.</p> <p>It was reported that during construction activity about 25,000 m<sup>3</sup> of silt / debris / dredged sand from M/s.KPL was dumped in the water body. In compliance to Hon'ble NGT orders M/s NCTPS stage-IV have started removal of silt / debris/ sand inside the water body since 04.08.2021. As on 20.10.2021 about 19,500 m<sup>3</sup> of quantity is removed from the water body and about 5500 m<sup>3</sup> of debris is yet to be removed. Removal of debris was in progress and by October 31, 2021 the unit shall completely remove the debris from water body as committed. The debris removed from the water body is stored in the premises of NCTPS IV (Ennore SEZ) construction site and it was reported that it would be used for leveling and land filling within the construction site.</p>
3.	<p>The TANGEDCO shall strictly fulfill and comply with the conditions imposed in the Environmental Clearance under the EIA Notification as amended and CRZ Clearance under the CRZ Notification as amended without violations and deviations for NCTPS Stage III and Ennore SEZ Power Plants unlike the environmental damage already caused by the operation of NCTPS Stage-I &amp; II Thermal Plants due to ash deposit in the water bodies and the air-borne fly ash in the nearby villages causing nuisance and air pollution.</p>	<p>Assured by NCTPS Stage III and Ennore SEZ Power Plants to comply further with the conditions imposed in the Environmental Clearance under the EIA Notification as amended and CRZ Clearance under the CRZ Notification as amended without violations and deviations.</p>

<p>4. The TANGEDCO shall procure and replace the existing ash slurry pipe lines 1, 2, 3, 4 &amp; 5 pertaining to the NCTPS Stage I with new cast basalt pipe before December 2021 as already committed to the Hon'ble National Green Tribunal in Applications No.8 of 2016, 152 of 2016 &amp; 198 of 2016.</p>	<p>Pipelines 1 and 5 were earlier replaced with the second hand pipes retrieved from Ennore Thermal plant (ETPS) in August 2020.</p> <p>It was reported by the NCTPS Stage- I officials that for pipeline 1 (5129 mtrs) and pipeline 5 (5511 mtrs) administrative approval for procurement of New cast basalt pipe has been submitted to Head Office and it is under process and will be completed <b>by June 2022</b>.</p> <p>For pipeline 2 (5511 mtrs), 1160 meters of new cast basalt pipe lines have been replaced with the available 3498 metres pipes and the remaining work is being carried out and reported to be completed <b>by December 2021</b>.</p> <p>For pipeline 3 (4942 mtrs), new cast basalt pipe has been replaced from ash dyke to NCTPS gate. Balance pipes of length of 1050 metres inside NCTPS premises to be replaced.</p> <p>It was reported by the NCTPS Stage-I officials that supply of pipes has been delayed due to Covid-19 &amp; lock down. Afterwards partial lockdown was continued. At that time all the manufacturer have stopped/restricted their manufacturing activities. Hence procurement process got delayed and consequently works have also been delayed. The balance pipes of length of 1050 metres inside NCTPS premises will be replaced on receipt of balance materials.</p> <p>For pipeline 4 (4942 mtrs) no replacement works have been started.</p> <p>It was reported by the NCTPS Stage-I officials that tender for procurement of 4942m of new cast basalt pipes for a value of Rs.4.32 Crores has been lodged due to non-acceptance of validity by the bidders, exorbitant steel price hike and non acceptance of LD terms of TANGEDCO dated 06.01.2021. Fresh</p>
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		administrative approval has been accorded by TANGEDCO Head office for Rs.7.3 Crores. Also, reported that procurement action is under process with Board Level Tender Committee at Head office and will be completed by May 2022.
5.	The TANGEDCO shall also procure and replace the retrieved pipes from ETPS utilized for ash slurry pipe lines 1 & 5 pertaining to the NCTPS Stage I with new cast basalt pipe to permanently resolve the slurry ash disposal into water bodies.	It was reported by the NCTPS Stage-I officials that for pipeline 1 (5129 mtrs) and pipeline 5 (5511 mtrs) administrative approval for procurement of New cast basalt pipe has been submitted to Head Office and it is under process and will be completed by June 2022.
6.	The TANGEDCO is stopping the pumps soon after identifying leaks, followed by flushing with water and replacing the damaged portion of the pipe. However, the TANGEDCO is not taking any measures to clean up the area, where leak has taken place. The committee suggests that in addition to stopping the pumps, repairing the pipes, the TANGEDCO shall also take measures to clean up the area, where ash slurry has leaked, and transfer the ash it into ash dyke.	Removal of earlier deposition of ash from the leaky pipeline areas and transportation of the same to ash pond was under progress.
7.	From the log books, the committee observed that, pipeline leaks due to pipe burst/rupture of joints due to ageing of pipes are very common and frequently (average frequency of one leak/week) taking place in old pipelines. Apart from the leaks due to pipeline bursts/rupture, pinhole leakage is taking place in all three old pipelines. The TANGEDCO is not taking measures to rectify pinhole leakages. If timely action is not taken to rectify these pinhole leakages, it may lead to a major leakage. The committee submits that the TANGEDCO shall immediately rectify the pinhole	The TANGEDCO has engaged a separate patrol team to identify the pipeline leaks for taking measures to arrest the leakages immediately. It was reported that measures to rectify pinhole leakages to avoid major leakage are also undertaken.



	ash dust and stack emissions.	before November 2021. M/s NCTPS has finalized the specifications for the mesh. The pore size of the mesh is 2mm x 2mm. The mesh will be provided to a length of 400m and height of 10m thereby covering the Village.
13.	The unit shall augment the air pollution control devices installed in Stage-I & II and ensure that stack emissions are complying with notified standards. The units shall ensure that OCEMS installed in Stage-I & II are working properly and real time actual data is transmitted to CPCB and TNPCB servers.	It was reported that for NCTPS-I, every year, the ESP internals have been overhauled and renewal/rectification works are carried out if any damaged / worn out spares during Annual Overhaul (AOH) and available shutdown period. For NCTPS-II, Renewal of field internals of 42 Nos. (Unit 1&2) is under progress and will be completed by May 2022. Tender for FGD to control sulphur emission is under process. The Online Continuous Emission Monitoring System (OCEMS) for the parameters PM, SO <sub>x</sub> & NO <sub>x</sub> installed in Stage I (All three boilers) & II (All two boilers) are connected to TNPCB/CPCB server.
14.	The unit shall strengthen the earthen bund laid towards Seppakkam village and ensure that runoff from ash dyke or ash depositions are not carried to villages. The unit shall provide a drain before the bund so that runoff water is collected in drains and can be lifted back to ash dyke.	It was reported that for strengthening the ash pond earthen bund and forming toe drain, IIT Chennai has been appointed as Consultant. Also, reported that the report from IIT, Chennai has been received and the work will be commenced by TANGEDCO. Committee suggests that the height of the earthen bund shall be increased to 2m

## **6. Recommendations of the Committee**

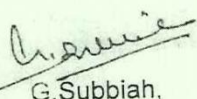
1. The TANGEDCO shall complete the recommendations of the committee constituted by the Hon'ble NGT in O.A.No.08 of 2016, 152 of 2016 & 198 of 2016, within the time line committed.
2. The TANGEDCO shall also complete the recommendations of the committee constituted by the Hon'ble NGT in O.A.No.162 of 2021.
3. The NCTPS Stage-I shall remit the Environmental Compensation of **Rs.4,12,20,000/- (Rupees Four crore twelve lakhs & twenty thousand only)** as

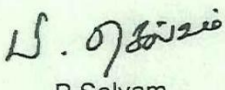


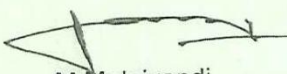
assessed by the committee constituted by the Hon'ble NGT in O.A.No.162 of 2021 and submitted to the Tribunal in September 2021.

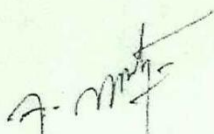
4. The unit M/s NCTPS Stage-II shall augment the air pollution control devices installed and ensure that stack emissions are complying with the stipulated standards at all times.
5. The unit M/s NCTPS Stage-I shall increase the height of the bund near Seppakkam Village to 2m.
6. The construction debris removed from the water body by M/S NCTPS Stage-III shall be utilized or disposed safely in M/s NCTPS own land away from the water body by November 30, 2021

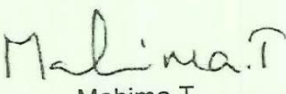
It is, therefore, prayed that this Hon'ble Tribunal may take on record the above status report based on the observations made by the Joint Committee and pass appropriate and further orders as this Hon'ble Tribunal may deem fit and necessary in the circumstances of the case and thus render justice.


  
G. Subbiah,  
Forest range Officer,  
Directorate of Environment, Chennai  
representing  
Tamilnadu Coastal Zone Management  
Authority.

  
P. Selvam,  
Revenue Divisional Officer,  
Ponneri, Thiruvallur District.  
representing  
District Collector,  
Thiruvallur District.

  
M. Malaiyandi  
Joint Chief Environmental Engineer(M),  
Tamil Nadu Pollution Control Board,  
Chennai Zone.

  
A. Muthaiya,  
Superintending Engineer,  
Water Resources Department / PWD,  
Chennai.

  
Mahima T  
Scientist 'D'  
CPCB,  
Regional Directorate, Chennai.

  
R. Sridhar,  
Scientist 'D'  
MoEF & CC,  
Integrated Regional Office, Chennai.

58. Thereafter, this Tribunal had passed the following order:

5. It is mentioned in the report that there are certain cases related to the same issue pending before this Tribunal as Original Application Nos.08 of 2016, 152 of 2016 and 198 of 2016. Further, it is also seen from the report that environmental compensation of Rs.4,12,20,000/- was assessed, but what is the nature of action taken for recovery of the amount has not been mentioned.

6. Even in this report, certain violations have been noted which has not been remediated by the TANGEDCO so far. So, we feel that some time can be granted to the TANGEDCO to file their objection to the Joint Committee report, this case can be heard together as one of the case relating to similar issue posted to 22.11.2021 and this case also can be posted to that date for consideration of further action taken report to be filed by the regulating authorities for the violation noted.

7. The regulating authorities are directed to file their further action taken report regarding action taken by them in respect of the violations noted at the time of inspection on the earlier occasion and also on the subsequent occasion before this Tribunal on or before 22.11.2021 by e-filing in the form of Searchable PDF/OCR Supportable PDF and not in the form of Image PDF along with necessary hardcopies to be produced as per Rules.

8. The Registry is directed to communicate this order to the official respondents by e-mail immediately for their information and compliance of the direction.

9. For objections (if any) to the report and consideration of report, post on 22.11.2021.

59. On 22.11.2021, this Tribunal had considered all the connected cases related to TANDEGCO fly ash issue and considered the reply affidavit filed by TANDEGCO in O.A. No. 162 of 2021 regarding the compliance made by them and extracted Para 32 of the reply statement in Para 7 of the order. When the matter was taken up on 22.11.2021, after considering the reply affidavit filed by the TANDEGCO in O.A. No. 162 of 2021 and O.A. No. 122 of 2021 and filed further reply regarding the steps taken by them to rectify the deficiencies which were pointed out in the earlier proceedings regarding the breach of fly ash slurry carrying pipes and its rectification in Para 43 of the reply statement which was extracted in Para 11 of the order which reads as follows:

**43.** With regard to para 4 and 5 of facts in brief of the application, the statement of the Chief Engineer of NCTPS-I of the 4<sup>th</sup> Respondent on the status of Ash Slurry Disposal Lines (ASDL) of NCTPS-I are as follows:

**a. Ash Slurry Disposal Line No. :1**

For line No.1 entire length of 5129 meters of Ash Slurry Disposal Line has been erected in Aug 2020 (100% Completed).



**b. Ash slurry disposal Line No. : 2 & 3**

For the procurement of new cast basalt pipes purchase order (P.O) has been placed on M/s Turbo Engineers, Coimbatore for a length of 10,452 meters for a value of Rs.8.36 Crores with a delivery period of 10 months. About 7392 metres (70%) of new pipe Lines have been supplied and the balance quantity was delayed due to Covid-19 which came in to effect from March 2020. Line No 3 (Total length 4942 metres) pipe has been replaced with new pipes from ash dyke to NCTPS gate for about 3892 metres out of 4942 metres (78.7 % completed). Line No.2 (Total length 5511 metres) worn out old pipes dismantling works in progress. Replacement of pipes with the available quantity 3500 metres will be taken up shortly.

Meantime, the suppliers, M/s Turbo Engineers in letters dated 27.4.2021 and 10.06.2021 have informed their inability to supply the balance quantity (30%) due to Covid-19 second wave & huge raw material cost escalation. However, action is being taken to complete the work on emergency basis.

**c. Ash slurry disposal line No.:4**

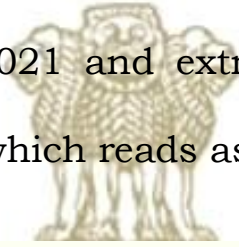
As for the procurement of new cast basalt pipes for a length of 4944 metres for a value of Rs.4.32 Crores, the tender has been lodged due to non-acceptance of validity by the bidders, exorbitant steel price hike and non acceptance of LD terms of TANGEDCO. Hence, fresh proposal for administrative approval was sent and the same has been accorded by TANGEDCO Head quarters on 07.05.2021. Procurement action is under process. However, as a contingency measure the worn out pipes

are being replaced with the Pipes available. After receipt of new pipes, the work is expected to commence in Dec -2021.

**d. Ash Slurry Disposal Line No.: 5**

The entire line has been replaced to a length of 5599 meters in June 2018 (100% completed) and leakages, if any noticed, are attended immediately.

60. This Tribunal also expressed its displeasure regarding the steps taken by them for replacement of pipes which are subject to breach resulting in fly ash spilling in the order. This Tribunal also considered the reports submitted by the Pollution Control Board in O.A. No. 122 of 2021 signed by the Chief Environmental Engineer, Pollution Control Board on 02.11.2021, e-filed on 03.11.2021 and extracted in Para 13 of the order dated 22.11.2021 and extracted in Para 13 of the order dated 22.11.2021 which reads as follows:



**REPORT FILED ON BEHALF OF THE 6<sup>TH</sup> RESPONDENT**  
**TAMIL NADU POLLUTION CONTROL BOARD.**

I, S. Ragupathi, S/o. R. Sanganan, Hindu, aged about 57 years, having office at No.76, Mount Salai, Guindy, Chennai-600 032, do hereby solemnly affirm and sincerely state as follows:-

1. I am the Joint Chief Environmental Engineer, Tamil Nadu Pollution Control Board and I am filing this Report on behalf of the 6<sup>th</sup> Respondents Board and as such I am well acquainted with the facts of the case as per records.

2. It is respectfully submitted that the Hon'ble National Green Tribunal(SZ), Chennai in its order dated.07.06.2021 in O.A.No.122 of 2021 directed as follows:

*"Para 15 : the members of the committee as well as the official respondents immediately through e-mail, so as to enable them to comply with the direction and for filing their independent response to the allegations made in the application and also for filing their independent report as directed by this Tribunal"*

3. It is respectfully submitted that, in compliance of the above Hon'ble NGT order, the area was inspected by officials of the JCEE(M), TNPCB, Chennai on 14.07.2021. During inspection, the following were observed:

- i) Water is being used for pumping out the ash slurry, generated by burning of coal in Stage I and Stage II of North Chennai Thermal Power Plants, into the ash pond, which is filtered and put into reuse. Everyday about 48,000 Tons of wet ash slurry is



being pumped into ash pond which contributes 3,300 Tons of Fly ash.

- ii) The ash pond is located about 5kms from the Thermal Plant sprawling at an area of about 245 Hectares.
- iii) The total quantity of ash deposited was 65 Lakh Cubic metre, out of which 22 Lakh Cubic metre has been already removed and transported. Hence left out with 43 Lakh cu.m of ash at present.
- iv) Both the Stage-1 & 2 Thermal Power Plants have been designed for 40% Wet bottom and hence generation of ash slurry is inevitable. Only the Stage-3 Thermal Power Plant is designed for a dry bottom and hence ash will be disposed to the ash pond as a contingency plan in case of emergency only.
- v) The pipelines of Stage-1 were commissioned during 1994-95 and hence more than 25 years old. They have become rustic, corroded and brittle with numerous cracks. There are total 8 Nos. of series of pipelines of which 5 Nos. carry ash slurry and 3 Nos. being used for recycling the filtered water.
- vi) Out of the above 5 Nos of pipelines, Line 1 & 5 were replaced and got completed during August 2020. These pipes are old used pipelines brought from Ennore Thermal Power Station (ETPS). They are Cast Basalt-lined having an outer diameter of 406 mm and Inner diameter of 356mm. Replacement of Line 2 & 3 is in progress with new Cast Basalt pipes, but for Line 4, the unit is yet to procure new pipes. The TANGEDCO has committed a timeline for replacement of all the 5 Nos. of pipelines by December 2021, to comply with the orders of the Hon'ble Tribunal in Applications No.8 of 2016, 152 of 2016 & 198 of 2016.
- vii) Both the series of ash pipelines of Stage-1 & 2 comprising 13 Nos.(8+5) starts near the Stage-2 Entrance Gate outside,

  
JOINT CHIEF ENVIRONMENTAL ENGINEER  
TAMILNADU POLLUTION CONTROL BOARD,  
No.76, MOUNT SALAI, CHENNAI-600 032.

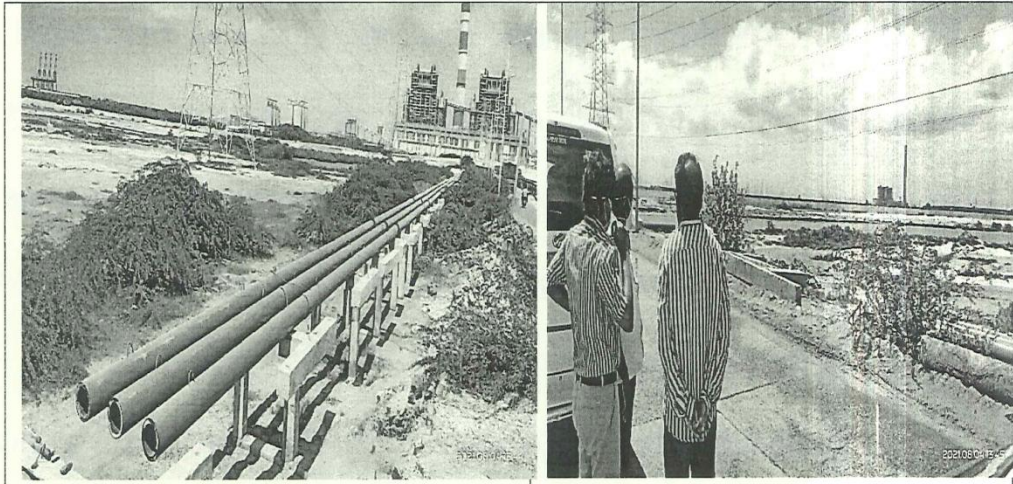
cross the adjoining Buckingham Canal and Backwaters by supporting bridges.

viii) The pipelines cross across Buckingham Canal, Backwaters and the Ash Pond. Although leakage of fly ash from pipelines were not noticed at the time of inspection, accumulation of fly ash deposits still persists in Backwaters and Buckingham Canal, due to the leakage of ash slurry from the ageing pipes. As a result, Buckingham canal and backwaters have become a cesspool of ash. The ash pond is found deposited with huge quantum of ash to an average depth of about 4 metre. Excavation and transportation of ash from the ash pond is noticed and requires removal on large scale. The earthen bund is about 7 metre height surrounding the ash pond of which a portion of bund has been raised another 3 metre height to augment the storage of ash. Raising of bund for the entire circumference is incomplete. The pond is devoid of Geomembrane lining. There are no mechanisms for spraying / trickling of water to control spreading of ash in the air causing air pollution.

ix) Laying of ash pipelines for Stage-3 (3 lines reported as one for Fly ash slurry, one for Bottom ash slurry and third one for recovery of water from Ash pond) was in progress and the pipelines will be laid parallel to the existing pipelines of Stage-1 & 2. It crosses the Buckingham Canal and the adjoining Backwaters by RCC supporting Bridges. Piling work for the supporting Bridges and laying of pipelines were stopped temporarily and it was reported that the unit has stopped the piling work and pipeline laying due to the case filed before the Tribunal.

  
JOINT CHIEF ENVIRONMENTAL ENGINEER  
TAMILNADU POLLUTION CONTROL BOARD,  
No.76, MOUNT SALAI, CHENNAI-600 032.





**Partially completed ash slurry pipelines for the M/s.NCTPS  
Stage-III**

4. It is respectfully submitted that Combined Environmental Clearance for expansion of 1 x 800MW North Chennai Thermal Power Plant (Stage-3) and CRZ clearance for the following foreshore facilities at villages of Ennore & Puzhuvivakkam in Ponneri Taluk of Thiruvallur District has been granted by the MoEF & CC dated 20.01.2016 with certain conditions. The validity of EC is up to 7 years from the date of issue i.e 19.01.2023.

- a) Coal conveyor having length of 3.5 km and elevation of 6 m for coal transportation from Ennore Port to NCTPS Stage - III TPP.
- b) Supporting trestles (Steel frames) for coal conveyor at about 6 m/8 m from ground level.
- c) Sea water intake from fore bay of NCTPS stage –II intake & outlet pipe to pre cooling channel of NCTPS for discharge with intake pipe length of 3 km and outlet pipe length of 1.5 km
- d) GRP( Glass reinforced Plastic) pipes on the ground level for cooling water inlet and coolant water outlet.

*S. S. Srinivasan*  
20/11/23  
JOINT CHIEF ENVIRONMENTAL ENGINEER  
TAMILNADU POLLUTION CONTROL BOARD,  
No.76, MOUNT SALAI, CHENNAI-600 032.

5. It is respectfully submitted that vide para 6 of EC issued, it is mentioned that the fly ash and bottom ash would be collected and stored in the silos and supplied to cement/brick industries for manufacturing cement and bricks. 100% dry fly ash collection will be done by providing pressurized dry fly ash collection system.

6. It is submitted that on scrutiny of the Environmental clearance and CRZ Clearance, it is noticed that there is no specific mentioning about the laying of pipelines in CRZ area for conveying the bottom ash to the ash dyke or bring back the ash pond water from the ash dyke to the plant for reuse except the mentioning of "Ash pond water will be collected, treated and reused for slurry making".

7. It is respectfully submitted that the TANGEDCO must strictly fulfil and comply with the conditions imposed in the Environmental Clearance and CRZ Clearance without violations and deviations for Stage-3 TPP, unlike the environmental damage already caused by the operation of Stage-1 & 2 Thermal Plants due to ash deposit in the water bodies and the air-borne fly ash in the nearby villages causing nuisance and air pollution.

8. It is further submitted that the leakage of ash pipelines provided for NCTPP Stage 1 and accumulation of fly ash in Buckingham Canal and Backwaters has become an everyday phenomena and these facts have been already dealt by the Hon'ble Tribunal (SZ) in Applications No.8 of 2016, 152 of 2016 & 198 of 2016. In this regard, the Hon'ble Tribunal (SZ) constituted an Expert Committee comprising Central



Pollution Control Board (CPCB), IIT, Madras, TamilNadu Pollution Control Board (TNPCB) in its order dated 25.05.2019 to ascertain the status of fly ash / bottom ash disposal, damage caused to the environment, environmental compensation if so what is the nature of damage caused and remedial measures to be taken and also assess the environmental compensation for the damage caused to the environment. Also, Hon'ble Green Tribunal (SZ) passed orders dated December 21, 2017 to deposit the required funds to PWD/WRD for removing the accumulated fly ash from Buckingham Canal & Backwaters and also ordered TANGEDCO to replace the ash slurry pipes as early.


In pursuance to the orders dated December 21, 2017 in Applications No.8 of 2016, 152 of 2016 & 198 of 2016 by the Hon'ble National Green Tribunal (SZ), TANGEDCO deposited a sum of Rs.28.50 Crores to PWD/ WRD for the work of Dredging the Backwaters (Kosathalaiyar River) deposited with fly ash between NCTPS Main gate up to KPL (Kamarajar Port Limited) Main gate for a length of 2400 metres. In addition, they had also deposited Rs.66.23 Lakhs for removal of fly ash deposited in the adjoining Buckingham Canal between NCTPS Main gate up to KPL Main gate for a length of 2400 metres. Though the works have been reported to be completed in all aspects by December 2020, accumulation of fly ash still persist in the completed stretch of Buckingham Canal.

Further, the TANGEDCO has remitted an amount of Rs 16.461 Crores as Environmental Compensation for the period from

  
02/11/21  
JOINT CHIEF ENVIRONMENTAL ENGINEER  
TAMILNADU POLLUTION CONTROL BOARD,  
No.76, MOUNT SALAI, CHENNAI-600 032.

01.11.2004 to 12.11.2019 as assessed by the TNPC Board based on the findings of the violations noticed by the Joint committee constituted by the Hon'ble NGT in the above said cases.

Under the above circumstances, it is humbly prayed that this Hon'ble National Green Tribunal (Southern Zone) may be pleased to pass such order as it may deem fit and proper in this facts and circumstance of the case and thus render justice.

  
JOINT CHIEF ENVIRONMENTAL ENGINEER  
TAMILNADU POLLUTION CONTROL BOARD,  
No.76, MOUNT SALAI, CHENNAI-600 032,  
**BEFORE ME**

#### **VERIFICATION**

I, S. Ragupathi, S/o. Thiru. Sanganan , working as Joint Chief Environmental Engineer, Tamil Nadu Pollution Control Board, Chennai, do hereby verify that the contents of above report are true to the best of my knowledge through records.

  
JOINT CHIEF ENVIRONMENTAL ENGINEER  
TAMILNADU POLLUTION CONTROL BOARD,  
No.76, MOUNT SALAI, CHENNAI-600 032.

#### 61. Thereafter, this Tribunal passed the following order:

14. In this report also they have reiterated the deficiencies in respect of maintenance of the pipelines of the existing thermal power plants owned by TANGEDCO and certain environmental compensation was imposed and that was deposited by them as well.

15. Learned Counsel appearing for the applicant Mr. A. Yogeshwaran submitted that these incidents are recurring resulting in large scale environmental damage. Whenever, such things are brought to the notice of the Tribunal, they are only taking steps to remove the fly ash slurry deposited on account of the breach and that will not remedy the situation in toto. Some study will have to be conducted regarding the remediation process of damage caused on account of the same as has been suggested by the Joint Committee appointed by the Tribunal in 2017 itself. Thereafter no such study has been conducted by TANGEDCO for the purpose of taking remediation process. That also will have to be considered for the purpose of permanently resolving the issue in that area.

16. We are also not satisfied with the manner in which the replacements of damaged pipes are being carried out by TANGEDCO. Further, it is also seen from some of the reports filed by them that they are going to replace the same with old pipes which they have removed from their own decommissioned units but that will not help the purpose as we do not know the conditions of those pipes and also how long it can withstand the process and if old pipes of de-commissioned units are used, the possibility of breach being recurring regularly cannot be ruled out and that will be a continuing nuisance for the people in the locality besides damage to the environment. So, it is high time for them to replace the same with new pipes and suggest as to



what is the timeline required by them for that purpose and that too they are not expected to take long time as already the people in the area are suffering and environment is adversely affected due to their negligent act for the past 5 to 6 years at least, though it may be for a much longer period, if it is traced to its origin.

17. So, we feel that short time can be given to TANGEDCO to come with an action plan with shorter time line for replacing the pipes and stating the difficulties they are facing for the purpose of procuring funds and administrative sanction, then necessary direction can be given to the higher level officials to deal with the same and remedy the situation. They are also directed to come with the report regarding study if any, conducted by TANGEDCO themselves for the purpose of implementing the remediation process through an independent agency as recommended by the Joint Committee in the year 2017. They are directed to submit these reports and action plan on or before 30.11.2021. If they did not come with a proper action plan to the satisfaction of this Tribunal, then this Tribunal will be compelled to pass some coercive orders to implement the same with shorter time line and also appoint an independent committee to go into these aspects and submit a report at the expense of TANGEDCO.

18. The Registry is directed to communicate this order to the official respondents including the Chairman, TANGEDCO for their information and compliance of the direction.

19. For consideration of further action taken report and also report as directed 44 by this Tribunal study regarding the remediation process, if any, undertaken, post on 30.11.2021.

62. As per order dated 30.11.2021, considering the nature of relief claimed and allegations made in O.A. No. 122 of 2021 and O.A. No.162 of 2021, this Tribunal had decided to de-link these cases from O.A. No. 08 of 2016 and other connected cases and decided to consider these two cases separately. This Tribunal also in that order mentioned that the applicant had filed a memo dated 30.11.2021 in O.A. No. 122 of 2021 stating certain aspects and that can be considered by the Tribunal along with the original application.

63. Respondents no. 9 and 10 in O.A. No. 162 of 2021 have filed undertaking which was e-filed on 30.11.2021 which reads as follows:

**UNDERTAKING FILED ON BEHALF OF THE 10<sup>th</sup> RESPONDENT**

I, R.Ramkumar, son of Ramdas, aged about 58 years residing at A2 Power Apartment 25, Zackaria Colony Main Road Choolaimedu, Chennai 600 094 , do hereby solemnly affirm and sincerely state as follows:

1. I state that I am the Chief Engineer, representing the 10th Respondent herein and as such I am well acquainted with the facts of the case from the available records. I am filing this undertaking for myself and on behalf of Respondent No.9.

2. I state that this Hon'ble Tribunal on 22.11.2021 was pleased to pass the following order :

*"17.So, we feel that short time can be given to TANGEDCO to come with an action plan with shorter time line for replacing the pipes and stating the difficulties they are facing for the purpose of procuring funds and administrative sanction , then necessary direction can be given to the higher level officials to deal with the same and remedy the situation. They are also directed to come with the report regarding study if any, conducted by TANGEDCO themselves for the purpose of implementing the remediation process through an independent agency as recommended by the Joint Committee in the year 2017. They are directed to submit these reports and action plan on or before 30.11.2021. If they did not come with a proper action plan to the satisfaction of this Tribunal, then this Tribunal will be compelled to pass some coercive orders to implement the same with shorter time line and also appoint an independent committee to go into these aspects and submit a report at the expense of TANGEDCO."*

3. I state that pursuant to the said order and in compliance of the directions therein, the following present status/action taken report is submitted as hereunder.

4. I state that In North Chennai Thermal Power Station-I, 60% of Ash generated is disposed as fly ash to Cement Companies through open tender. Rest of the Ash being handled as wet Ash and the same is disposed as Ash Slurry into the Ash Dyke. The wet Ash is also shipped to some extent for ground filling such as Road filling etc., utmost care is taken to dispose the Ash to maximum extent securely.

5. I state that in North Chennai Thermal Power Station-I (NCTPS-I), 5 Nos. Ash Slurry Disposal Lines (ASDL) were erected in the year 1994, for conveying Ash slurry from NCTPS-1 into Ash Dyke for about 5 Km each.

6. I state that the above pipelines are being exposed in saline atmosphere and carrying Ash slurry which is in abrasive nature. Hence the above pipelines tend to get corrosion & erosion. The most damaged pipelines were identified and replaced in piece meal manner. All the above five pipelines have fully corroded since they have served its full lifetime.

**The present status of action taken on replacement of eroded ASDL pipelines:**

**ASDL No.1& 5** - (5129 mtrs each) - Administrative approval is under process and the replacement of entire length of both pipelines will be completed by June 2022. Meanwhile both the above pipelines have been replaced by using the released pipes from ETPS and it disposes Ash slurry reasonably.

**ASDL No.2** - (5511 mtrs ) - 1728 meters of new cast basalt pipe lines have already been replaced with available 3498 metres pipes and work is being carried out on emergency basis and will be completed by December 2021.

**ASDL No.3** - (4942 mtrs) - New cast basalt pipe has been replaced successfully from ash dyke to NCTPS gate and there are no leaks developed in this pipeline.



**ASDL No.4** – (4942 mtrs) - Tender for procurement of 4942m of new cast basalt Pipes is under process and will be completed by May 2022.

7. I state that due to Covid-19 pandemic, Nationwide lock down has been imposed from March 2020 to September 2020 as per the guidelines of Government of India. Afterwards partial lockdown was continued. At that time all the manufacturer have stopped/restricted their manufacturing activities and hence the supply & erection works in ASDL 2 & 3 are getting delayed.

8. I state that the Ash deposits of about 4.35 Lakh Cum in the Kosasthalaiyar River for a length of 2.4 Kms from NCTPS main Gate to KPL main Gate has been desilted at a cost of Rs. 28.5 Crore through PWD during the period from June to Dec' 2020.

9. I state that similarly Ash deposits of about 134 Lakh Cum in the Buckingham Canal for a length of 2.4 Kms NCTPS main Gate to KPL main Gate has been desilted at a cost of Rs. 66.23 Lakhs through PWD during the period from June to Dec' 2020.

10. I state that as per the direction of District Collector Thiruvallur, Ash deposits of about 8813 Cum in the Buckingham Canal on the northern and southern sides of the Ash Slurry Pipelines of NCTPS-I & II has been desilted for a length of about 200 mtrs at an expenditure of 17.7 Lakhs during the period from 24.10.2021 to 15.11.2021.

11. I state that ash dyke Bund and ASDL Bund strengthening works are being taken up continuously. Also ASDL supplying sleepers are replaced / repaired then and there to improve ASDL system.

12. I state that necessary steps are being taken by planting Bamboo Saplings for greening throughout the area of Ash Slurry Disposal Lines from North Chennai Thermal Power Stations (NCTPS-I & II), up to Ash Dyke through Social Forestry Scheme by outsourcing the works to Forest Department.

Hence, it is humbly prayed that this Hon'ble Tribunal may be pleased to take the present undertaking on record and thus render justice.

DATED AT CHENNAI ON THIS THE 29<sup>th</sup> DAY OF NOVEMBER 2011

**10<sup>th</sup> RESPONDENT**

  
CHIEF ENGINEER  
NORTH CHENNAI THERMAL POWER STATION  
TNEB, CHENNAI-600 120

**VERIFICATION**

I, R.Ramkumar, son of Ramdas, aged about 58 years years residing at at A2 Power Apartment 25, Zackaria Colony Main Road Choolaimedu, Chennai 600 094 do hereby verify that the contents of paras 1 to 12 are true to the best of my knowledge and I have not suppressed any material fact.

Verified at Chennai on 29<sup>th</sup> day of November, 2021.

**10<sup>th</sup> RESPONDENT**

  
CHIEF ENGINEER  
NORTH CHENNAI THERMAL POWER STATION  
TNEB, CHENNAI-600 120

64. Heard the Learned Counsel for the applicant and Learned Counsel for the respondents in both the cases.

65. Mr. A Yogeshwaran, Learned Counsel appearing for the applicant in O.A. No. 122 of 2021, argued that it is seen from the Joint Committee report that there was violation of laying pipeline through the CRZ zone which was not permitted as per the Environmental Clearance as well as CRZ clearance granted to this project. Further the findings of the Committee will go to show that even the directions issued by this Tribunal in O.A. No. 08 of 2016 during 2017 have not been complied with and non-performance of the undertaking given by the TANDGECO regarding the replacement has resulted in further breach of pipes which resulted in spilling of huge quantity of fly ash slurry which during the process of cleaning by the TANDGECO officials reaches the Kosasthalaiyar River causing ecological damage to the riverine environment. Further the larger aspect regarding remediation to be taken for the deposits already made is being dealt with by this Tribunal in O.A. No. 08 of 2016 and other connected cases and the monitoring of the replaced pipes is also being done in that case. The other aspects regarding damage to environment etc. can be considered by this Tribunal in the other cases.

66. Since, it was done in violation of the Environmental clearance conditions and CRZ Notification, there must a direction to the authorities to remove the unauthorised pipelines put by them



instead of ratifying the same by amending the Environmental Clearance and CRZ Clearance without following the procedure, as it is seen from the reply affidavit that they are taking steps to amend the Environmental Clearance and CRZ Clearance for which necessary steps have already being taken and the order of this Tribunal that there is violation cannot be taken as a permission for the MoEF&CC to allow the amendment without following the procedure. In fact they want to change the scope of the alignment, they will have to apply for fresh Environmental Clearance for that purpose and that will be considered after following the procedure provided under EIA Notification, 2006 and other subsequent Notifications issued in this regard by the Ministry. He had relied on the decisions reported in Key stone realtors private limited vs. Anil V. Tharthare and ors.<sup>1</sup> in support of their case.

67. The Learned Counsel for the TANDGECO submitted that even at the time when project was launched, there was a mention about the disposal of ash slurry in emergency cases for which pipeline is inevitable. Further, it is only on omission on the part of the authorities to include this aspect for which they have already moved the Ministry for amendment of the Environmental Clearance and the CRZ Clearance to incorporate this aspect as well. Further all steps have been taken by them to replace the old pipelines with new pipelines as directed by this Tribunal and all precautionary methods are being taken by the officials of the TANDGECO to avoid further breach. Further

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<sup>1</sup> (2020) 2 SCC 66

they are also taking steps to conduct the remediation measures as directed by this Tribunal in O.A. No. 08 of 2016 and ordering payment of simultaneous compensation in both the cases will cause great hardship to them. The Learned Counsel also submitted that they are prepared to abide by any condition imposed by this Tribunal to avoid further breach and after orders passed by this Tribunal they have stopped the work of laying pipeline through the CRZ zone and they will carry out the work only after obtaining necessary permissions in accordance with law.

68. The Learned Counsel appearing for MoEF&CC submitted that there was no permission granted and the Joint Committee has considered all these aspects and made the necessary recommendations and they will take the necessary action in accordance with law for the violations committed. They also contended that if any application for amendment of Environment Clearance/CRZ Clearance is received, they will consider the same only in accordance with law.

69. The Learned Counsel for the State Departments also submitted in tune with the submission made the Learned Counsel for MoEF&CC and they further submit that they will abide by any condition and direction issued by this Tribunal and implement the same in its letter and spirit as Government is committed to take all steps to protect environment and water bodies.



70. We have considered the submission made by both the Learned Counsels, pleadings and the documents including the Joint Committee report and other documents submitted.

71. The Points that arise for consideration are:

- i. Whether there was any violation committed by TANDGECO in laying the pipeline against the Environment Clearance and CRZ Clearance granted and also against the CRZ Notification, 2011.
- ii. What is the nature of action to be taken against them, if it is established that there was violation?
- iii. What is the quantum of compensation to be fixed to be payable by the TANDGECO for the damage caused to the environment on account of their act?
- iv. What is the nature of further direction to be issued to be complied with by TANDGECO in future to avoid such incidents?
- v. Relief and costs.

**Points**

72. O.A. No. 162 of 2021 was suo motu registered by this Tribunal, when a newspaper item was published regarding the deviation of the Environment Clearance and CRZ Clearance granted to TANDGECO and also in respect of breach of pipe resulting in spillage of fly ash slurry in the Kosasthalaiyar area. The O.A. No. 122 of 2021 was filed by a private applicant, who claims to be a fishermen in that area and having interest in protecting environment, when he came to know that TANDGECO was taking steps to provide pipeline for carrying fly ash slurry from the NCTPS Stage III for their 1x800 MW new project in violation of the Environment Clearance and CRZ Clearance granted as no such permission was granted for such purpose in those clearances. Further, according to the

applicant in that case, the permission was granted on the premise that there will be 100 per cent fly ash disposal in the dry form itself and no slurry will be taken to the ash pond, so they wanted reliefs claimed in the application including removal of the encroachment made by them in violation of the CRZ Notification, 2011.

73. The TANDGECO filed counter in both these cases contending that it is an ancillary purpose for which the pipelines will have to be drawn and when EIA study was conducted, these aspects were also considered and when presentation was made to the authorities including the Expert Appraisal Committee of MoEF&CC and MoEF&CC and also before the Tamil Nadu Coastal Zone Management Authority as to how they are going to deal with the fly ash generated and they have also mentioned that for temporary purpose and in emergency cases, the fly ash slurry will be taken to the fly ash dyke already in existence in that compound. So these aspects were known to the authorities and it cannot be said to be a deviation or violation of the Environment Clearance and CRZ Clearance granted. They further stated that they have taken all steps to arrest the breach of slurry due to leak in old pipes and they are taking all steps as directed by this Tribunal in O.A No. 08 of 2016 and connected matters to replace the old pipes with new pipes with certain timelines and once that is done the further breaches will be avoided. They further contended that on the early occasions, when breaches happened, certain inspections was conducted



by the Pollution Control Board and also by the Joint Committee as directed by this Tribunal on the basis of the recommendations given, they were carrying out the recommendations and certain amount of compensation was also paid earlier and subsequent compensation fixed by the Committee is excessive. They also contended that as recommended by the Committee, they have taken all steps for removal of fly ash deposited in the river area and after direction of this Tribunal, they have stopped the work of laying of pipelines for the intended purpose.

74. It is in a way admitted that the area through which the pipeline is intended to be drawn for the project of the TANDGECO falls under CRZ zone and though it is a permissible activity, they can do the work only after getting prior permission from the Coastal Zone Management Authority as well as MoEF&CC as it is part of the project and prior permissions are required for these purposes as well. The question is whether this is the violation of the CRZ Clearance cum Environment Clearance granted or not for the purpose of the fixing the liability. In order to ascertain the same, Joint Committee was appointed by this Tribunal in O.A. No. 122 of 2021 and the Joint Committee categorically found in the inspection report e-filed on 14.09.2021 that the Environment Clearance and CRZ Clearance was granted for foreshore facility only and not for laying of pipes, which is gross violation as per CRZ Notification, 2011. It is specifically mentioned that Environment Clearance

cum CRZ Clearance was granted for expansion of 1x800 MW ETP and foreshore facility only. On scrutiny it was evident that laying of pipeline for carrying ash across Kosasthalaiyar backwaters has not been covered in these clearance granted. But as regards damage caused to the environment is concerned, they have mentioned that the TANDGECO had started the work of laying the pipelines for Stage III and crossing across the Kosasthalaiyar River has not taken up so far and hence the environmental damage due to crossing of pipes has not been assessed for working out the compensation due to environmental damage. It was stated by TANDGECO in EIA report that 100 per cent bottom ash and fly ash generated will be consumed by the end consumers and will be pumped into ash dyke in case of emergency only. It must be ensured that new pipes must be laid in that area to avoid any leakage of fly ash into water bodies, thereby environmental damage will be averted.

75. The applicant had filed a memo in O.A. No. 122 of 2021 stating that: 1) The TANDGECO has illegally, without clearance had commenced and constructed a portion of the ash pipeline for its new project without Environmental Clearance and CRZ Clearance. Various reports filed including counter filed by MoEF&CC have testify to that effect, 2) there is no provision in law to grant post facto clearance under EIA or CRZ Notification. It is antithetical to EIA and CRZ Notification, the objective of environmental good governance and sustainable development.



Following the law is the path to sustainable development- not the condonation and rewarding the violations, 3) TANDGECO has now applied for clearance of this project, post facto and misleading the MoEF&CC that they are applying as directed by the Joint Committee constituted by this Tribunal and citing the orders of this Tribunal, 4) the attempt of the TANDGECO deserves to be deprecated, there is no provision in law to grant such clearances. The pipeline illegally constructed deserves to be demolished and used to replace the leaking pipes of Stage I and Stage II of TANDGECO has to be prosecuted for its repeated egregious violation of law and 5) The existing ash pond in NCTPS is un-lined, is violative of the law and a serious case of pollution. It is not a viable solution to take ash slurry from the new thermal power plant under construction to the same ash pond.

76. In O.A. No. 162 of 2021 also this Tribunal had appointed a joint Committee and the Joint Committee had filed a detailed report with certain recommendations which reads as follows:

#### **8. Recommendations of the Committee**

1. The TANGEDCO shall resume the activities pertaining to the NCTPS Stage III and Ennore SEZ Power Plants within the CRZ area in Kosathalaiyar River/ Buckingham Canal/Backwaters only after obtaining amendment to the existing CRZ Clearance from MoEF&CC.
2. The TANGEDCO shall expedite removal of debris and dredged material from Kosathalaiyar river and restore natural flow within October 31, 2021.
3. The TANGEDCO shall strictly fulfill and comply with the conditions imposed in the Environmental Clearance under the EIA Notification as amended and CRZ Clearance under the CRZ Notification as amended without violations and deviations for NCTPS Stage III and Ennore SEZ Power Plants unlike the environmental damage already caused by the operation of NCTPS Stage-I & II Thermal Plants due to ash deposit in the water bodies and the air-borne fly ash in the nearby villages causing nuisance and air pollution.



4. The TANGEDCO shall procure and replace the existing ash slurry pipe lines 1, 2, 3, 4 & 5 pertaining to the NCTPS Stage I with new cast basalt pipe before December 2021 as already committed to the Hon'ble National Green Tribunal in Applications No.8 of 2016, 152 of 2016 & 198 of 2016.
5. The TANGEDCO shall also procure and replace the retrieved pipes from ETPS utilized for ash slurry pipe lines 1 & 5 pertaining to the NCTPS Stage I with new cast basalt pipe to permanently resolve the slurry ash disposal into water bodies.
6. The TANGEDCO is stopping the pumps soon after identifying leaks, followed by flushing with water and replacing the damaged portion of the pipe. However, the TANGEDCO is not taking any measures to clean up the area, where leak has taken place. The committee suggests that in addition to stopping the pumps, repairing the pipes, the TANGEDCO shall also take measures to clean up the area, where ash slurry has leaked, and transfer the ash into ash dyke.
7. From the log books, the committee observed that, pipeline leaks due to pipe burst/rupture of joints due to ageing of pipes are very common and frequently (average frequency of one leak/week) taking place in old pipelines. Apart from the

leaks due to pipeline bursts/rupture, pinhole leakage is taking place in all three old pipelines. The TANGEDCO is not taking measures to rectify pinhole leakages. If timely action is not taken to rectify these pinhole leakages, it may lead to a major leakage. The committee submits that the TANGEDCO shall immediately rectify the pinhole leakages in the pipelines that are noticed by the patrolling team.

8. The TANGEDCO is replacing the portion of the old damaged pipeline with pipes retrieved from Ennore Thermal Power Plant to arrest leakage. After replacement, the damaged pipelines are laying at the place of leak itself. The committee submits that TANGEDCO shall take measures to remove all the old damaged pipelines laying in the ground and keep it in stores and subsequently dispose it.
9. The TANGEDCO shall carry out patrolling of ash slurry disposal pipe lines round the clock to notice and avert the leakages of pipe lines, so as to prevent the disposal of ash into Kosasthalaiyar River, Buckingham Canal etc. till the replacement of existing pipe lines.
10. During inspection, the committee observed that the ash previously removed from Kosasthalaiyar River and Buckingham canal was stored near the point of excavation. During rainfall, the ash will get into river & canal again. The committee submits that the TANGEDCO & PWD shall ensure that the removed ash shall be transferred to ash dyke.
11. The NCTPS Stage-I shall remit the environmental compensation of **Rs.4,12,20,000/- (Rupees Four crore twelve lakhs & twenty thousand only)** assessed by the Committee for continuing the disposal of ash slurry in water bodies.
12. The unit shall provide dust nets/mesh towards Seppakkam village to minimize the impacts of flyash dust and stack emissions.
13. The unit shall augment the air pollution control devices installed in Stage-I & II and ensure that stack emissions are complying with notified standards. The units shall ensure that OCEMS installed in Stage-I & II are working properly and real time actual data is transmitted to CPCB and TNPCB servers.
14. The unit shall strengthen the earthen bund laid towards Seppakkam village and ensure that runoff from ash dyke or ash depositions are not carried to villages. The unit shall provide a drain before the bund so that runoff water is collected in drains and can be lifted back to ash dyke.



77. Further, as per the direction of this Tribunal, the Joint Committee also filed further report during October, 2021 which was also extracted in the previous paragraphs and as such we are not re-extracting the same. Except extracting the observations and recommendations of the Committee which were dealt with the report which reads as follows:

#### **6. Recommendations of the Committee**

1. The TANGEDCO shall complete the recommendations of the committee constituted by the Hon'ble NGT in O.A.No.08 of 2016, 152 of 2016 & 198 of 2016, within the time line committed.
2. The TANGEDCO shall also complete the recommendations of the committee constituted by the Hon'ble NGT in O.A.No.162 of 2021.
3. The NCTPS Stage-I shall remit the Environmental Compensation of **Rs.4,12,20,000/- (Rupees Four crore twelve lakhs & twenty thousand only)** as

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- assessed by the committee constituted by the Hon'ble NGT in O.A.No.162 of 2021 and submitted to the Tribunal in September 2021.
4. The unit M/s NCTPS Stage-II shall augment the air pollution control devices installed and ensure that stack emissions are complying with the stipulated standards at all times.
  5. The unit M/s NCTPS Stage-I shall increase the height of the bund near Seppakkam Village to 2m.
  6. The construction debris removed from the water body by M/S NCTPS Stage-III shall be utilized or disposed safely in M/s NCTPS own land away from the water body by November 30, 2021
- It is, therefore, prayed that this Hon'ble Tribunal may take on record the above status report based on the observations made by the Joint Committee and pass appropriate and further orders as this Hon'ble Tribunal may deem fit and necessary in the circumstances of the case and thus render justice.

78. The Committee has assessed an environmental compensation of Rs. 4,12,20,000/- for the damage caused to the environment on account of spilling of ash in Kosasthalaiyar River region though in O.A. No. 08 of 2016 in another matter pending in respect of similar issue, they have been directed to pay some

compensation which was remitted by them, but in spite of that such breaches are recurring causing damage to the riverine environment. So under such circumstances, we do not find any reason to reduce the compensation directed to be paid, namely, Rs. 4,12,20,000/- as compensation by TANDGCEO for the damage caused to the environment on account of their negligent act of discharge of fly ash slurry due to pipeline leakages, into the Kosasthalaiyar River basin. CRZ Clearance granted clearly shows that there is no permission granted for carrying ash slurry pipe through the CRZ zone. It was admitted by TANDGECO as well as regulator, namely, MoEF&CC and Coastal Zone Management Authority that though it is a permissible activity prior clearance is required and the CRZ Clearance granted does not cover this aspect and as such it is a gross violation of clearance granted. So, the submission made by the Learned Counsel for the TANDGECO and the contentions raised by TANDGECO in their reply affidavit and also to the Joint Committee report that it cannot be said to be a diversion as it is an ancillary work to be carried out for implementation of the project in question and as such there is no separate clearance required cannot be accepted and they are rejected.

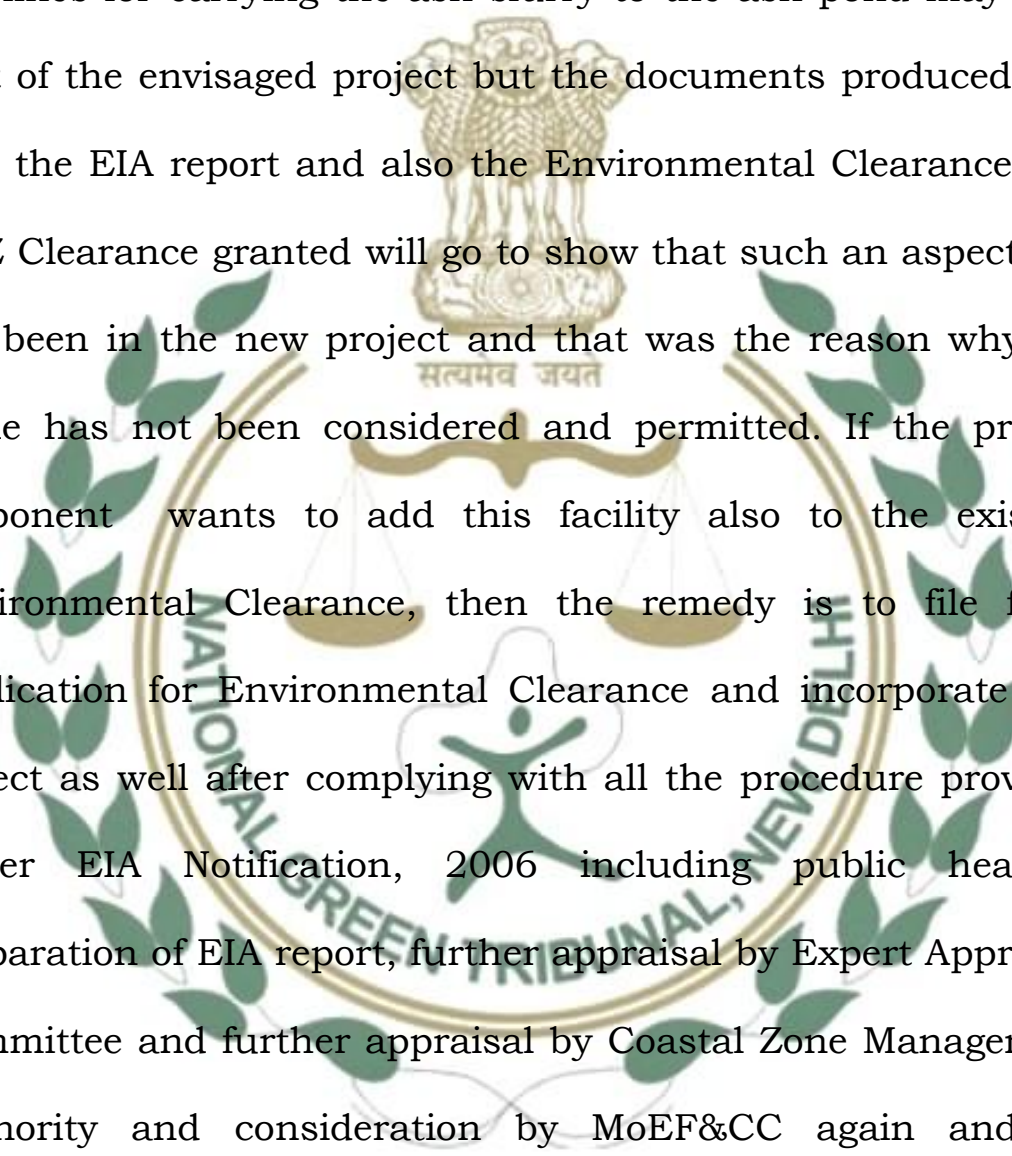
79. In the Decision reported in Key stone realtors private limited vs. Anil V. Tharthare and ors.<sup>2</sup> the Hon'ble Apex Court has observed that for the purpose of expansion of the project the project proponent has to file fresh application for

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<sup>2</sup> (2020) 2 SCC 66



Environmental Clearance and the Environmental Clearance can be granted only after complying with all the procedure provided under EIA Notification, 2006 and such an expanded activity cannot be granted by way of amendment to the existing Environmental Clearance granted for the earlier or same project of the project proponent. In this case, though drawing of pipelines for carrying the ash slurry to the ash pond may be a part of the envisaged project but the documents produced and also the EIA report and also the Environmental Clearance and CRZ Clearance granted will go to show that such an aspect has not been in the new project and that was the reason why the same has not been considered and permitted. If the project proponent wants to add this facility also to the existing Environmental Clearance, then the remedy is to file fresh application for Environmental Clearance and incorporate this aspect as well after complying with all the procedure provided under EIA Notification, 2006 including public hearing, preparation of EIA report, further appraisal by Expert Appraisal Committee and further appraisal by Coastal Zone Management Authority and consideration by MoEF&CC again and no deviation can be made in this regard by MoEF&CC and the project proponent, if they want to make any inclusion of this aspect in the existing project. This aspect must be taken note of by the MoEF&CC when any application has been filed by the project proponent for the purpose of inclusion of laying down



the pipeline through the CRZ zone and other area and also for collecting the ash slurry through the existing ash pond.

80. Since, TANDGECO had violated the conditions they are not entitled to proceed further with the construction of the pipeline without getting necessary permission from the authorities in this regard. It cannot be by way of an amendment to the Environmental Clearance granted as omission in earlier permission granted. They will have to apply afresh, obtain ToR and also conduct separate environmental studies, public hearing will have to be conducted and on that basis fresh appraisal will have to be done by authorities. Amendment to Environmental Clearance by way of granting additional permission without conducting further Impact Assessment Study is not contemplated under EIA Notification, 2006 or under the CRZ Notification, 2011. The direction given by the Tribunal that they can proceed with the work only after obtaining necessary permission from the authorities also cannot be taken as a direction for the authorities that they should allow or not to allow the request. They will have to take an independent decision on this aspect, on the basis of the material produced before them and also after considering impact and the law on this aspect as well as has been observed by the Hon'ble Supreme Court in Key Stone realtors private limited vs. Anil V. Tharthare and ors.<sup>3</sup>

81. It is true that whenever any construction is made against the permission or in violation of clearance granted, it must face the

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<sup>3</sup> (2020) 2 SCC 66



consequence for the same. Since, the construction has not reached the Kosasthalaiyar region as observed by the Joint Committee and they have only filled up the area for this purpose and they have already taken steps to remove those obstruction caused by virtue of the same we feel there is no necessity to demolish the already made construction, if any. But, however, we feel that they can be made to pay an additional compensation of Rs. 50 lakh over and above the environmental compensation imposed by the Tribunal for the damage caused to the environment due to breach of fly ash slurry. That will meet the ends of justice in this case.

82. As regards the remediation process of damage caused to soil on account of deposit of fly ash in the Buckingham Canal and Kosasthalaiyar River basin are being dealt with by this Tribunal in O.A. No. 08 of 02016 and other connected matters and as such we are not expressing any opinion in this case, leaving open the same to be decided in that case which includes further compensation, if any, to be assessed on the basis of the recommendations made by the Committee appointed by this Tribunal in that case.

83. The TANDGECO also is directed to carry out the replacement of the pipes within the time line given by them, by giving an undertaking to this Tribunal in O.A. No. 08 of 2016 and other connected cases, so as to avoid further breach in future. So under such circumstances, we feel that both the applications can be disposed of as follows:

- i. The TANDGECO is directed not to proceed with the work of laying the pipeline through the CRZ zone and also in the other area in violation of the Environment Clearance and CRZ Clearance granted to them in 2016, without getting necessary further clearances in this respect by filing afresh application in accordance with law and the same will have to be considered by the authorities strictly in accordance with law and the direction given for this purpose cannot be treated as a direction to the authorities to grant the permission, if it is not otherwise feasible or permissible under law. This must be strictly in compliance with the decision of Hon'ble Supreme Court in Key stone realtors private limited vs. Anil V. Tharthare and ors.<sup>4</sup>
- ii. The TANDGECO is directed to pay an Environmental Compensation of Rs. 4,12,20,000/- fixed by the Joint Committee and approved by this Tribunal to Tamil Nadu Pollution Control Board for the damage caused to environment on account of the deposit of fly ash slurry in the Kosasthalaiyar River region, over and above the compensation already remitted by them as directed by the Pollution Control Board in O.A. No. 08 of 2016 and other connected cases.
- iii. The TANDGECO is also directed to pay an additional compensation of Rs. 50 lakh with the Tamil Nadu Pollution Control Board for the violation committed i.e. preparation for constructing the pipeline and making some attempts for

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<sup>4</sup> (2020) 2 SCC 66



that purpose in violation of the Environmental Clearance and CRZ Clearance granted and this is in addition to the compensation already directed to be paid by them for damage caused to the environment on account of deposit of fly ash.

- iv. The TANDGECO is directed to carry out the replacement of the old pipes as undertaken by them and as directed by this Tribunal in O.A. No. 08 of 2016 and other connected cases within the time line fixed by the Tribunal, on the basis of the undertaking given by them to avoid future breaches.
- v. The TANDGECO is directed to carry out recommendations made by the Joint Committee in both the cases in its letter and spirit to avoid future breaches of fly ash into the riverine area. The question regarding steps to be taken for remediation process of damage caused to the environment on account of deposit of fly ash in that area for longer period will be considered by this Tribunal including any further compensation to be paid on the basis of the recommendations to be made by Committee already appointed by this Tribunal in O.A. No. 08 of 2016 and other connected cases.
- vi. The TANDGECO is also directed to take steps to remove the fly ash already deposited in that area, as directed by the Joint Committee as well as the Pollution Control Board at the earliest possible time to reduce the impact of damage to riverine environment any further.

- vii. The TANDGECO is also directed to take necessary steps to avoid leakage through pipes and they must hold vigil by regular inspection of the old pipe lines till such time their replacement is completed and take immediate steps to arrest breaches, if any, during the interregnum. The amount of compensation directed to be paid on two counts are to be deposited by TANDGECO with Tamil Nadu Pollution Control Board which they can utilise for the purpose of protecting Kosasthalaiyar River as well Ennore creek in that area to restore the damage caused to environment and also to provide necessary protection to prevent encroachments in that areas in future and avoid further environmental damage as well as riverine damage in that area.
- viii. As regards the action to be taken for violations committed by TANDGECO in violation of Environmental Clearance and CRZ Clearance, the respective regulators, namely, MoEF&CC and State Coastal Zone Management Authority are directed to take necessary action against TANDGECO in accordance with law.

The points are answered accordingly.

84. In the result O.A No. 122 of 2021 and O.A. No. 162 of 2021 are disposed of as follows:

- I. The TANDGECO is directed not to proceed with the work of laying the pipeline through the CRZ zone and also in the other area in violation of the Environment Clearance and



CRZ Clearance granted to them in 2016, without getting necessary further clearances in this respect by filing afresh application in accordance with law and the same will have to be considered by the authorities strictly in accordance with law and the direction given for this purpose cannot be treated as a direction to the authorities to grant the permission, if it is not otherwise feasible or permissible under law. This must be strictly in compliance with the decision of Hon'ble Supreme Court in Key stone realtors private limited vs. Anil V. Tharthare and ors.<sup>5</sup>

II. The TANDGECO is directed to pay an Environmental Compensation of Rs. 4,12,20,000/- fixed by the Joint Committee and approved by this Tribunal to Tamil Nadu Pollution Control Board for the damage caused to environment on account of the deposit of fly ash slurry in the Kosasthalaiyar River region, over and above the compensation already remitted by them as directed by the Pollution Control Board in O.A. No. 08 of 2016 and other connected cases.

III. The TANDGECO is also directed to pay an additional compensation of Rs. 50 lakh with the Tamil Nadu Pollution Control Board for the violation committed i.e. preparation for constructing the pipeline and making some attempts for that purpose in violation of the Environmental Clearance and CRZ Clearance granted and this is in addition to the compensation already directed to be paid by them for

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<sup>5</sup> (2020) 2 SCC 66

damage caused to the environment on account of deposit of fly ash.

IV. The TANDGECO is directed to carry out the replacement of the old pipes as undertaken by them and as directed by this Tribunal in O.A. No. 08 of 2016 and other connected cases within the time line fixed by the Tribunal, on the basis of the undertaking given by them to avoid future breaches.

V. The TANDGECO is directed to carry out recommendations made by the Joint Committee in both the cases in its letter and spirit to avoid future breaches of fly ash into the riverine area. The question regarding steps to be taken for remediation process of damage caused to the environment on account of deposit of fly ash in that area for longer period will be considered by this Tribunal including any further compensation to be paid on the basis of the recommendations to be made by Committee already appointed by this Tribunal in O.A. No. 08 of 2016 and other connected cases.

VI. The TANDGECO is also directed to take steps to remove the fly ash already deposited in that area, as directed by the Joint Committee as well as the Pollution Control Board at the earliest possible time to reduce the impact of damage to riverine environment any further.

VII. The TANDGECO is also directed to take necessary steps to avoid leakage through pipes and they must hold vigil by regular inspection of the old pipe lines till such time their



replacement is completed and take immediate steps to arrest breaches, if any, during the interregnum. The amount of compensation directed to be paid on two counts are to be deposited by TANDGECO with Tamil Nadu Pollution Control Board which they can utilise for the purpose of protecting Kosasthalaiyar River as well Ennore creek in that area to restore the damage caused to environment and also to provide necessary protection to prevent encroachments in that areas in future and avoid further environmental damage as well as riverine damage in that area.

VIII. As regards the action to be taken for violations committed by TANDGECO in violation of Environmental Clearance and CRZ Clearance, the respective regulators, namely, MoEF&CC and State Coastal Zone Management Authority are directed to take necessary action against TANDGECO in accordance with law.

IX. As regards O.A. No. 122 of 2021 is concerned, since it is filed by a private person in order to protect environment, we feel that TANDGECO can be directed to pay a cost of Rs. 25,000/- to the applicant in that case.

X. If the above amounts including the compensations and costs are not paid within three months from today, then the Pollution Control Board and the applicant are entitled to initiate proceedings for recovery of the same under Section 25 of the National Green Tribunal Act, 2010 or through

District Collector for recovery of the amount invoking Revenue Recovery Act, 1890 in accordance with law.

XI. The Registry is directed to communicate this order to the official respondents including TANDGECO for their information and necessary compliance.

85. With the above observations and directions, the applications are disposed of.



.....J.M.  
(Justice K. Ramakrishnan)

.....E.M.  
(Dr. Satyagopal Korlapati)

O.A. No.122/2021(SZ)&  
O.A No. 162/2021(SZ)  
31<sup>st</sup> January, 2022 AM.

