

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEWDELHI

IN

ORIGINAL APPLICATION NO. 502 of 2022

Petitioner : Padmakumar

Versus

Respondent(s) : The State of Kerala

INTERIM REPORT FILED BY THE JOINT COMMITTEE BEFORE
THE HON'BLE NATIONAL GREEN TRIBUNAL, PRINCIPAL
BENCH, NEWDELHI IN THE MATTER OF O.A. NO. 502/2022.

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Index

Sl.No.	Description	Pages
1	Interim report filed by the Joint Committee in the matter of O.A. 502/2022	1-4
2	Annexure 1 – Minutes of the Joint Committee meeting (V.C.) held on 11/10/22 in the chamber of Chief Environmental Engineer, Regional Office, Thiruvananthapuram	5-9
3	Annexure 2 – Minutes of Joint Committee meeting, Site inspection and hearing of the complainant and the KMML held on 17/10/2022	10-14

Dated this the 28th day of November 2022




SREEKALA S.
Chief Environmental Engineer

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

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INTERIM REPORT FILED BY THE JOINT COMMITTEE BEFORE
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BENCH, NEWDELHI IN THE MATTER OF O.A. NO. 502/2022.

1.0 Background

The Hon'ble National Green Tribunal (NGT) Principal Bench, New Delhi has registered O.A No. 502 of 2022 based on a letter petition received from Sri. Padmakumar regarding pollution caused by M/s. Kerala Minerals and Metals Limited (KMML), situated in Chavara, Kollam District, Kerala. The Hon'ble NGT vide order in O.A. 502/2022 dated 29/08/2022 had constituted Joint Committee comprising of;

1. Principal Secretary, Industries & NORKA
2. Central Pollution Control Board
3. State Pollution Control Board

4. State Wetland Authority
5. District Collector, Kollam

The State Pollution Control Board is specified as the nodal agency for co-ordination and compliance. The Chief Environmental Engineer, KSPCB, Regional Office, Thiruvananthapuram is nominated as the member of the State Pollution Control Board to above Committee vide proceedings No. PCB/HO/SEE-1/NGT/O.A.NO.502/2022 dated 15/09/2022.

The Hon'ble NGT has directed the committee to meet within two weeks, undertake visits to the site, look into the grievances of the applicant, associate the applicant and representative of the concerned project proponent, verify the factual position and submit its report within one month.

2.0 Joint committee meeting, visit to the site and report

In compliance with the Hon'ble NGT order dated 29.08.2022 passed in O.A. No. 502/2022, the joint committee convened a meeting through video conference on 11/10/2022 in the chamber of Chief Environmental Engineer, KSPCB, Regional Office, Thiruvananthapuram. Sri. J. Chandra Babu, Regional Director, CPCB, Smt. M. A. Rajeena Beegum, Additional Secretary, Industries Department and Sri. K. Sudhir, Additional Director, Directorate of Industries & Commerce (on behalf of Principal Secretary, Industries and NORKA Department), Sri. Roy Kumar F., Deputy Collector LA, Kollam and Sri. Chetan Kumar Meena, Sub Collector, Kollam (On behalf of District Collector, Kollam), Dr. Deepesh V., Scientist C, CPCB; Dr. John C. Mathew, Environment Programme Manager, Directorate of Environment and Climate Change (DoECC) representing State Wetland Authority Kerala; Sri. Chandra Bose, Managing Director, KMML and

Environmental Engineer, District Office, Kerala State Pollution Control Board, Kollam attended the meeting. The committee members expressed their views on the matter in the above case. The company representative gave a brief description about the company processes, ETP operations and disposal methods adopted for ETP sludge and iron oxide sludge. Environmental Engineer, District Office, Kollam presented the present status of operation of the industry and pollution issues. It was decided to conduct a joint committee visit to the M/s KMML industry and its premises at the earliest. It was also decided to hear the applicant and project proponent on the same day of visit. The minutes of the joint committee meeting held on 11/10/2022 is submitted herewith as **Annexure 1**.

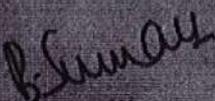
As decided by the Joint Committee, visit to M/s. Kerala Metals & Minerals Ltd. and its premises was made on 17/10/2022 by the Joint Committee.

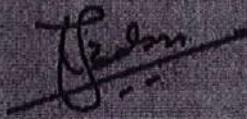
The committee met Sri. Padmakumar, the applicant in O.A. No. 502/2022 and heard the grievances of the applicant and the nearby residents. The joint committee members comprising Principal Secretary, Industries and NORKA Department; Regional Director, CPCB, Bengaluru; District Collector, Kollam; Chief Environmental Engineer, KSPCB and Wetland Specialist, State Wetland Authority Kerala (on behalf of Environment Programme Manager, DoECC) visited the affected areas of Ponmana, Chittoor, near the storm water discharge point of M/s. KMML, nearby canal leading to Ashtamudi Estuary and Porookkara and the Vattakkayal in the presence of the applicant (Mr. Padmakumar) and nearby residents and samples from stagnant water near the factory premises as opined by the applicant, were also collected during the visit. The committee also inspected the ETP and iron oxide sludge ponds of the unit and the point of discharge of treated ETP effluent to sea and samples were also taken for further analysis to

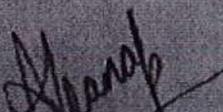
verify compliance to the prescribed effluent discharge standards. The minutes of the joint committee visit and meeting is submitted as Annexure 2.

The water and sludge samples taken from the industrial unit and its premises were taken to Central Laboratory, KSPCB, Ernakulam for processing and thereafter digested samples (21 Nos) were sent to Regional Lab of Regional Directorate, CPCB, Bengaluru for further analysis. As per the decision of the Joint Committee the final report shall be prepared and submitted before Hon'ble NGT at the earliest after obtaining the analysis result of the samples, sludge samples and samples of stagnant water near the industry premises collected during the visit of Joint Committee on 17/10/2022.

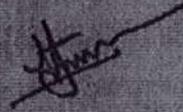
Submitted for kind consideration of this Hon'ble Green Tribunal,


Sri. Suman Billa
Principal Secretary
Industries and NORKA Department


Sri. J. Chandra Babu
Regional Director
CPCB


Smt. Aisana Perween
District Collector
Kollam


Smt. Sreekala S.
Chief Environmental Engineer
KSPCB


Dr. John C. Mathew,
Environment Programme Manager,
Directorate of Environment and Climate Change
Representing State Wetland Authority Kerala

**Minutes of the Joint committee meeting (V. C.) held on 11/10/22 in the
chamber of Chief Environmental Engineer, Regional Office,
Thiruvananthapuram**

The Hon'ble NGT vide order in OA 502/2022 dated 29/08/2022 constituted a Joint Committee to verify the factual position with respect to Kerala Minerals and Metals Ltd., Chavara, Kollam. Accordingly, the joint committee meeting was convened on 11/10/2022 at 11.00 am via online. The Chief Environmental Engineer welcomed all the participants to the meeting. The list of participants is given below.

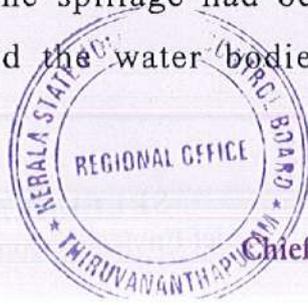
1. Sri. J. Chandra Babu
The Director
Regional Directorate
Central Pollution Control Board
Bengaluru, Karnataka
2. Smt. M. A. Rajeeva Beegum
Additional Secretary
Industries department
Government Secretariat
Thiruvananthapuram
3. Sri. K. Sudhir,
Additional Director,
Directorate of Industries Commerce
Vikas bhavan, Thiruvananthapuram
4. Sri. Roy Kumar F.
Deputy collector LA,
Collectorate,
Kollam.
5. Sri. Chetan Kumar Meena
Sub Collector
Revenue Divisional Office,
District Collectorate
Kollam



SREEKALA S.
Chief Environmental Engineer

6. Dr. Deepesh V.
Scientist 'C'
Central Pollution Control Board
Regional Directorate (South), Bengaluru.
7. Dr. John C. Mathew
Environment Programme Manager
Directorate of Environment and Climate Change
Thampanoor, Thiruvananthapuram
8. Sri. Chandra Bose
Managing Director
Kerala Minerals and Metals Limited
Sankaramangalam, Chavara
Kollam
9. Smt. Rachel Thomas
Environmental Engineer,
District Office, Kollam
10. Smt. Sreetha A. M.,
Assistant Environmental Engineer,
Regional Office, Thiruvananthapuram.
11. Smt. Asha J.S.,
Assistant Engineer,
Regional Office, Thiruvananthapuram.

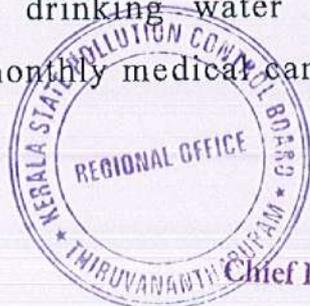
Joint committee members introduced themselves. The Chief Environmental Engineer detailed about the purpose of the meeting. The Hon'ble NGT vide order dated 28/08/2022 has directed the committee to meet within two weeks, undertake visits to the site, look into the grievances of the applicant, associate the applicant and representative of the concerned project proponent, verify the factual position and submit its report within one month. The case is posted on 13.12.2022. CEE explained that the industry effluent is having a low P^H and some spillage had occurred near the industry premises long before and the water bodies and soil near the premises are




SREEKALA S.
Chief Environmental Engineer

acidic in nature. She added that Sri. Padmakumar, local resident is the applicant in this case.

EE, DO, Kollam gave a brief description about the company process, consent details, waste generation & storage, pollution issues and long term and short term remedial measures proposed by M/s KMML. Sri. J. Chandra Babu, Regional director, CPCB enquired about the long term and short term measures implemented by the unit. The Managing Director of the unit replied that NEERI has suggested certain long term and short term remedial measures and the short term measures are nearing completion and long term measures are undergoing. The MD of the unit made a presentation on the company processes and status of long term and short term measures. He pointed out that Iron oxide sludge generated is 75 Metric tons per day and ETP sludge is around 50 Metric tons per day. The garland drain construction is 75% completed around the new ETP and about 40% completed around old ETP. This will be completed by December 2022. Another short term measure proposed by the company is the remediation of affected land near company premises and is planning to complete it by February 2023. Dewatering and storage of iron oxide sludge using Geotubes is also proposed for which tendering procedure is completed, and this is expected to implement by July 2023. The Acid recovery plant modification is pending for final Government approval. ETP sludge is being sold to an approved agency M/s Miracle Sands & chemicals in Tamil Nadu. There is also a discussion for transferring the iron oxide sludge to KEIL. As a part of social responsibility, the company is supplying drinking water (7 to 8 lakhs litre per day) and conducting monthly medical camps to the nearby residents and about




SREEKALA S.
Chief Environmental Engineer

2-3 crores has been spent last year for the welfare activities.

CEE pointed out that iron oxide is a dry product from the acid recovery plant, but it is converted to slurry form by adding water for the storage purpose. And also they are transferring the iron oxide sludge from the new pond to the old ponds. Sri. Chandra Bose, MD of the unit mentioned that they are transferring the iron oxide sludge to old ponds after neutralization. Regional Director asked about the waste water generation, treatment and its disposal and also about the capacity of the ETP tank and effluent generation. MD replied that the iron oxide sludge generated from the acid recovery plant are stored in the iron oxide ponds having seven layer protection. The iron oxide sludge was transferred from the new pond to the old pond and now it is almost in filled up condition. They are also planning for selling it as raw material. MD added that ETP tank is about two lakh tones and effluent generation is about 50 metric tons per day. RD enquired about the water consumption and waste water generation in the unit. Representative of M/s KMML replied that overall water consumption is about 6000 m³ and a maximum of 1200 m³/day of supernatant is discharged into the sea from the ETP settling pond.

Then CEE enquired the opinion of district administration regarding the land acquisition. The Sub collector, Kollam replied that about 76 acres of land is highly affected and there was a proposal for acquiring the land and is delayed due to some land cost issue. CEE mentioned that the matter regarding the land acquisition shall be discussed in detail during the joint inspection. CEE also reminded that the discussion with the complainant may also be conducted on the inspection day with the approval of committee



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Chief Environmental Engineer

members. The Environment Programme manager, Dr. John C. Mathew, (representative of SWAK) pointed out that the Vembanad lake is also mentioned in the complaint and is far away from this area. So it is better to hear from the complainant on this matter. The Additional Secretary, Smt. Rajeena Beegum added that the Principal Secretary is in an official trip till 14th October and the date of inspection can be finalized only in consultation with Principal Secretary. RD suggested to fix a convenient date for the site visit in the next week itself.

The meeting came to an end at 12.00 pm.


CHIEF ENVIRONMENTAL ENGINEER




SREEKALA S.
Chief Environmental Engineer

Minutes of Joint Committee meeting, Site inspection and hearing of the complainant and the KMML held on 17/10/2022

As decided by the Joint Committee, a joint inspection of the committee members was conducted on 17/10/2022 to M/s. Kerala Metals & Minerals Ltd. and its premises. The following officials were present.

1. Sri. Suman Billa, Principal Secretary, Industries and NORKA Department- Member
2. Sri. J. Chandra Babu, Regional Director, Central Pollution Control Board, Bengaluru.-Member
3. Smt. Afsana Perween, District Collector, Kollam -Member
4. Smt. Sreekala S., Chief Environmental Engineer, Kerala State Pollution Control Board, Regional Office, Thiruvananthapuram. Member
5. Dr. Junaid Hassan S., Wetland Specialist, State Wetland Authority Kerala (On behalf of Dr John C. Mathew, Environment Program Manager, DoECC. - Member)
6. Sri. Roy Kumar F, Deputy Collector LA, Kollam.
7. Smt. Beena Rani R, Additional District Magistrate, Kollam.
8. Sri. Shibu P, Tahsildar, Karunagappally, Kollam.
9. Sri. Renjith V. G, Junior Resource person, DDC, Kollam.
10. Smt. Rachel Thomas, Environmental Engineer, District Office, Kollam

The committee first met Sri. Padmakumar, the applicant in O.A. No. 502/2022 and enquired about the complaint matter. He complained that M/s KMML company is polluting the nearby land and water bodies for approximately 30 years. Ponmana, Chittoor and Poroorkara are the nearby areas affected by the working of the company. Majority of the people in these areas are suffering from skin diseases, respiratory ailments, eye irritation, asthma, allergy and the number of cancer patients are also increasing day by day. The local residents gathered at the inspection venue and they expressed their grievance before the committee. Sri. Padmakumar pointed out that the company is discharging its effluent as well as iron oxide mixed slurry to the nearby area



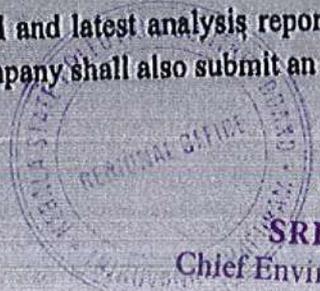
SREEKALA S.
Chief Environmental Engineer

during night time. Even after giving repeated complaints the company is continuing the same. All the wells in the nearby local bodies viz Ponmana, Chittoor, Kalari, Porookkara are polluted and unfit for drinking purpose. The company is supplying drinking water to these areas twice a day for about 2 hours in the morning and evening. The residents even complained about the quality of the water being supplied and also regarding the inadequate and intermittent supply.

There after, the joint committee visited the areas of Ponmana (North East of the company), Chittoor near Karungayil Sri. Arumukha Subramanya Temple, Chittoor (West of the company) and near Vattakkayal Lake shown by Sri. Padmakumar and the local people. Darkish Orange coloured stagnant water was seen in Chittoor, Ponmana regions from where samples are collected for analysis. The onsite checking of pH of the stagnant water (using litmus paper) showed pH in the range of 1-3. The residents complained that this contaminated water enters their compound even during slight rainfall and they are diagnosed with various skin diseases and other ailments. The wells in these areas are abandoned as the water is contaminated and unfit for drinking purpose. They also mentioned that land acquisition by the company should be done immediately. The committee after hearing the complainant and visiting the premises met for a joint meeting.

The case details were discussed in the meeting chaired by Sri. Suman Billa, the Principal Secretary who pointed out that committee has to comply with the Hon'ble National Green Tribunal order including preliminary meeting, site inspection, hearing the complainant and project proponent. Principal Secretary further suggested to verify the compliance of consent condition, water quality analysis of ground water as well as treated effluent being discharged by the KMML also and to verify the reason for low pH of the surrounding water and if there is any contribution from the company's part. Principal Secretary also added that the committee report should mention Principal Secretary is the Chairman of M/s. Kerala Metals & Minerals Ltd.

Sri. J Chandra Babu, Regional Director, Central Pollution Control Board explained that the committee shall file a report detailing the factual scenario in compliance to Hon'ble National Green Tribunal order dated 29/08/2022 prior to next date of hearing. The Regional Director (RD) added that the company shall submit the water consumption details, water balance chart, ETP details and sludge disposal and latest analysis report of treated effluent as well as ground water. The company shall also submit an action- wise timeline for completion of



SREEKALA S.
Chief Environmental Engineer

short term and long measures proposed and shall submit their report to the Board periodically. RD also added that the pH verification of the stagnant water samples showed pH around 1-3 which is highly acidic and cause health impacts to the animals too, if consumed. Danger sign boards shall be placed where ever required to avoid entry into such water body by the general public.

To the queries of Joint Committee regarding initiatives taken by KMML, Sri. Chandra Bose, Managing Director of KMML informed Joint Committee that sufficient quantity of lime is added for pH correction to treat the effluent before disposal and action plans are being implemented as per NBRI recommendations.

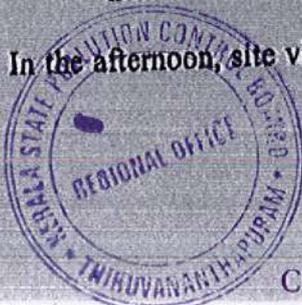
Smt. Afsana Perween, District Collector, Kollam added that matter regarding land acquisition was included in the previous minutes but the OA doesn't mention anything about this. District Collector also stated that the Kerala State Pollution Control Board shall conduct regular monitoring and verify whether they are conducting adequate treatment and also whether the mitigation measures proposed are adequate.

Sri. Junaid Hassan S., Wetland Specialist, State Wetland Authority Kerala pointed out that the Vattakkayal located near the concerned area is connected to Ashtamudi Ramsar Wetland through the TS canal; so samples may be taken if required from Vattakkayal. The location is far away from Vembanad Kol Ramsar Wetland.

Thereafter, the committee concluded its meeting with the following decisions.

1. To get the analysis of the collected samples at the earliest to include in the report.
2. To monitor the discharge of the company for a period of time.
3. To file a preliminary report before Hon'ble NGT within a month detailing the action taken so far in consultation with the standing counsel.
4. The committee shall meet on receipt of Analysis report to discuss and finalise the final report to be filed before Hon'ble NGT prior to the next date of hearing.

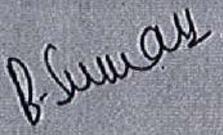
In the afternoon, site visit was done near the storm water discharge point of

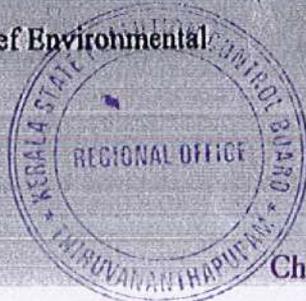


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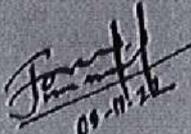
the company, nearby canal leading to Ashtamudi Estuary and Porookkara and the Vattakkayal in the presence of the applicant (Mr.Padma Kumar) and nearby residents and samples were taken for further analysis. The inspected area of Vattakayal is seen filled with dark brown coloured sediments, sand and mud. The nearby residents informed that the width of Porookkara reach of the lake has been reduced drastically during the past 10-15 years. The residents were also complaining about the residues coming through the canal joining Vattakkayal in Porookkara region. Then the committee visited the ETP, ETP sludge pond and iron oxide sludge ponds inside the company. The company representative informed that new iron oxide sludge pond is filled up and permission was requested to transfer the sludge to old iron oxide sludge pond. Iron oxide sludge sample was collected from sludge pond for analysis. The committee also inspected the point of discharge of treated ETP effluent to sea and samples taken for further analysis to verify compliance to the prescribed effluent discharge norms.

The visit ended at 6.00 pm.

Sl.No.	Name of the Officers	Signature
1	Sri. Suman Billa Principal Secretary Industries and NORKA department	
2	Sri. J. Chandra Babu Regional Director, CPCB	
3	Smt. Afsana Perween District Collector, Kollam	Signed by Afsana Perween IAS Date: 03-11-2022 12:08:42
4	Smt. Sreekala S. Chief Environmental	




SREEKALA S.
Chief Environmental Engineer

	Engineer KSPCB	
5	Dr. Junaid Hassan S. Wetland Specialist, SWAK. (On behalf of Dr. John C. Mathew, Environment Program Manager, DoECC)	





SREEKALA S.
Chief Environmental Engineer