

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
SOUTH ZONE BENCH, CHENNAI

IN THE MATTER OF ORIGINAL Application No. 182 of 2021 (SZ)

Mahesh Kumar

.....Applicant

Versus

Kerala State Pollution Control Board and  
others

.....Respondents

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Place: Bengaluru

Date 18/11/2021

S. Suresh  
18/11/2021  
(S Suresh)



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Filed through Counsel

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

**IN THE MATTER OF ORIGINAL Application No. 182 of 2021 (SZ)**

**Mahesh Kumar**

.....Applicant

**Versus**

**Kerala State Pollution Control Board And  
others**

.....Respondents

**Counter Affidavit on behalf of Central Pollution Control Board i.e. Respondent No. 4.**

I, S. Suresh, S/o Sh. S. R. Sathyanarayana aged about 59 years, am working as 'Regional Director' in Regional Directorate of Central Pollution Control Board (hereinafter referred to as CPCB), Bengaluru. I am fully conversant with the facts and competent to affirm this Affidavit on behalf of Respondent No. 4, do hereby declare as under;

**Para wise reply**

1. That, the averments made in the Para-1 of Original Application is about the Applicant and need no comments from CPCB i.e. Respondent No. 4.
2. That, the averments made in the Para-2 is about industrial belt located at Eloor-Edayar area and Respondent No. 9 and Respondent No. 10 Industries and need no comments from this Answering Respondent.
3. That, the averments made in the Para-3 is about Respondent No. 9 and need no comments from this Answering Respondent.
4. That, the averments made in the Para-4 is about Supreme Court Monitoring Committee (hereinafter referred to as SCMC) on hazardous waste constituted by Hon'ble Supreme Court vide order dated 14.10.2003 in the matter of Writ Petition (C) No. 657 of 1995



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for overseeing the directions issued by the Apex Court for compliance of Hazardous Waste Management Rules across the country. The SCMC noted about the contamination of groundwater in and around the vicinity of Respondent No. 9 Industry by its operation and recommendation made to Kerala State Pollution Control Board (hereinafter referred to as Kerala SPCB) to issue direction to the Respondent No. 9 Industry to supply piped drinking water to affected public. That this para need no comment from this Answering Respondent, as it relates to the Respondent No. 1 (i.e. Kerala SPCB).

5. That, in reply to the averments made in the Para-5, it is submitted that the area in and around the closed premises of Respondent No. 9 Industry has been identified as part of one of the contaminated sites in the country. This site along with other contaminated sites near Eloor area has been identified as 'Eloor-Edayar contaminated area' due to contamination of soil, sediment and groundwater with zinc and other heavy metals spread over a large area. This contaminated area comprises of closed premises of Respondent No. 9 Industry, the adjoining areas, Edayatuchal and Chakarachal paddy fields at Edayar area, Ernakulam, Kerala.
6. That, in reply to the averments made in the Paras 6 to 9, it is submitted that in the year 2011-12 Respondent No. 3 i.e. The Ministry of Environment, Forest, and Climate Change (MoEF&CC), Government of India has initiated a Project under National Clean Energy Fund (hereinafter referred to as "NCEF") for "**Remediation of Hazardous Waste Contaminated dump sites**" at 12 areas (containing multiple sites) in the country. **Pesticides and heavy metal contaminated site(s) at Eloor-Edayar, Kerala** has been identified as one of the priority sites requiring remediation under this NCEF Project. In this regard, MoEF&CC has engaged Central Pollution Control Board (CPCB) as a Project Implementing Agency.

As per the terms of NCEF project, central funding for assessment and remediation of contaminated area was limited to 40% of the total project cost. The remaining 60% was to be borne by State Government (**including Govt. of Kerala**) through Polluter Pays Principle/Public-Private Partnership/State support, etc. The said project was initiated in 6 States including Kerala who had given in-principle approval for funding State's



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share of 60% (**Annexure-I**). Accordingly, the project was awarded for preparation of DPR for remediation of contaminated area at Eloor-Edayar, Ernakulam, Kerala, which includes the contaminated premises of Respondent No. 9 Industry i.e. M/s Edayar Zinc Limited (formerly M/s Binani Zinc Ltd.) and the adjoining areas.

**Objective of this project** was envisaged in **two phases**, i.e. **preparation of detailed project report (DPR) in 1<sup>st</sup> phase** and **environmentally sound remediation in 2<sup>nd</sup> phase**.

#### Phase-I

- (i) Assess the levels and nature of contaminants in surface/sub-surface, groundwater and soil in and around the contaminated site;
- (ii) Conduct detailed assessment including risk assessment studies;
- (iii) Prepare detailed project report (DPR) along with technical and engineering designs for remediation /rehabilitation plans;

#### Phase-II

- (iv) Execution of the remediation work based on the DPR; and
- (v) Validation of remediation works and preparation of post-remediation monitoring plan.

It is submitted that this Respondent No. 4 has received Central grant for preparation of DPR i.e. Phase-I of the project. However, it is submitted that this Respondent No. 4 has not received any grant from State Government.

#### Outcome of the project is as below:

- a) CPCB initiated the project for preparation of Detailed Project Report (DPR) for remediation of pesticides and heavy metal contaminated site(s) at Eloor-Edayar, Kerala in August, 2014.
- b) Detailed site investigation was carried out at three areas of potential concerns (AoPCs) at Edayar area i.e. (B1 - Edayattuchal historical paddy fields), (B2 - Chakkarachal historical paddy fields) and (B3 - Residential areas along paddy fields and in & around the premises of Respondent No. 9 Industry. Key findings of assessment report are as below:

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- (i) Samples from 115 soil boreholes, 11 monitoring wells, 9 sediment boreholes, 15 existing open wells, 12 bore water and 18 surface water were collected:
- (ii) Heavy metals (mainly: Zn, Fe, Cd, and Cr) in soil were exceeding the screening criteria, mainly within the southern portion of the Edayattuchal and Chakkarachal paddy fields. Major impacts are restricted to shallow soils (0-0.5 m). No soil impact is identified within the residential area adjacent to the paddy fields:
- (iii) Heavy metals (mainly: Zn, Fe, and Mn) are identified in groundwater exceeding the screening criteria, localized within the paddy fields boundaries and immediately down gradient of the Jarosite ponds:
- (iv) Heavy metals (mainly: Zn, Cd, Fe) are identified in sediment samples localized within the paddy fields boundaries.
- (v) Primary source of contamination in Edayar area comprise of the Jarosite pond facilities located within the northern portion of Respondent No. 9 Industry.
- (vi) At present there are four Jarosite ponds at the site, out of which three ponds were capped. These ponds were reportedly contained provided with HDPE & LDPE liners.
- (vii) The secondary potential sources include the groundwater contaminated due to leaching from primary sources, contaminated soil and sediments in the flooded /marshy zones and contaminants distributed due to flooding.
- (viii) Approximately 8.5 lakh tons of Jarosite have been placed in Ponds 1, 2, and 3; these ponds were not constructed in a manner to sufficiently prevent migration of the contaminants contained in the Jarosite.
- (ix) As reported by local residents, unauthorized discharge of effluents occurred historically which were discharged through a drain at the southern extremity of Edayattuchal paddy fields. Discharge of effluents was also reported within the Chakkarachal paddy fields. During investigation of the project, surface



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water discharge was observed to occur at the southern portion of Edayattuchal originating from the industrial area. The exact origin of the effluent discharge is unknown. In rainy season, it is observed that surface runoff waters from the Binani School Ground is discharged to the Chakkarachal paddy field through an open drain.

- c) Human Health Risk Assessment (HHRA) was carried out as part of the study to derive site specific target levels (SSTLs) for remediation of aforesaid contaminated area.
- d) The contaminated area at Eloor-Edayar which includes the contaminated premises of Respondent No. 9 Industry was inspected by Technical Expert Committee (hereinafter referred to as TEC) constituted by CPCB along with the representatives of CPCB, Kerala SPCB and CPCB's Consultant on 12.01.2017. Subsequently, 8<sup>th</sup> meeting of the TEC was organized at the office of Kerala SPCB for finalization of technologies for remediation of aforesaid contaminated area. The technologies recommended by TEC had been outlined in the draft DPR for remediation of aforesaid contaminated area.
- e) The DPR has been prepared for remediation of Edayar contaminated area including the closed premises of Respondent No. 9 Industry and the adjoining areas. Accordingly, CPCB vide letter dated 13.02.2019 has forwarded the final DPR to Government of Kerala and Kerala SPCB for execution of remediation of aforesaid contaminated area including Respondent No. 9 Industry. Copy annexed as **Annexure II (Annexure-A4(1))** in OA).
- f) Based on the findings of the initial technology screening, the following approach has been selected for remediation of Soil, Sediment, Surface Water & Groundwater at the sites in Edayar area including around the premises of Respondent No. 9 Industry:

**i) Remedial Approach for Sediments and Soil**

Based on the multi-criteria evaluation of the shortlisted techniques proposed for soil remediation, excavation with off-site disposal has been found to be the most sustainable option. This approach removes the chemicals of concern (hereinafter referred to as CoCs) from the site and eliminates further migration in soil, sediment



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and into groundwater or surface water as applicable. This does not remediate the contaminants in the groundwater or surface water and therefore groundwater and surface impacts need to be addressed simultaneously.

## ii) Remediation Approach for Groundwater and Surface Water

The contamination in groundwater is limited to specific areas, while the contamination in surface water is governed by the corresponding contamination in sediments. Therefore, separate approaches will be required to address the groundwater and surface water contamination.

However, based on the multi-criteria evaluation of the shortlisted techniques proposed for groundwater and surface water remediation, the pumping and ex-situ treatment i.e. Pump & Treat (P&T) using Pressure Sand Filter (PSF) and Granular Activated Carbon (GAC) is the recommended sustainable option.

## 1. Soil Remediation

### a) Excavation and off-site Disposal

The remediation of contaminated soil is proposed to be handled by excavation and off-site disposal in a common hazardous waste TSDF. The cost for excavation and off-site disposal of contaminated soil as identified at B1 (Edayattuchal historical paddy fields) and B2 (Chakkarachal historical paddy fields) with stabilization is estimated to be Rs. 12.91 crore. In total, 6,950 m<sup>3</sup> of contaminated soil shall be excavated from all the areas of concern (excluding Jarosite pond).

### b) Remedial Implementation Schedule (Soil)

Activities	Sub-Activities	Anticipated Duration (days)
Excavation of contaminated material	Excavation	100
	Loading of trucks	
	Transportation to TSDF	
	Disposal in TSDF	
Backfilling and Capping	Backfill of areas identified for Soil Remediation	50



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## 2. Groundwater Remediation

Groundwater to be treated is estimated to be 20,00,000 m<sup>3</sup> in volume. The management of contamination present in groundwater is proposed to be handled using the Pump & Treat (P&T) in conjunction with ex-situ treatment with pressure sand filter and/or activated carbon filter. Based on the present level of understanding, the extent of contamination in shallow groundwater is limited to B3 (Residential areas around the paddy fields and Jarosite Ponds). Therefore, installation of abstraction wells shall be limited to Zone B3 (Residential Areas along Paddy Fields & Jarosite Ponds).

The schedule of implementation of the selected remedial technology is subject to limiting field conditions.

### a) Remedial Implementation Schedule (Groundwater)

Anticipated Activity	Sub-activities	Anticipated Duration (days)
Installation of abstraction wells	Installation of abstraction wells	10
	Installation of conveyance piping	20
Installation of water treatment system	Testing and Commissioning of GW Treatment Unit	60
	Operation of GW Treatment Unit	3,650 (Assumption, see below)
	Collection of GW Treatment Unit Samples	3,650

The capital expenditure (CAPEX) for Pump & Treat with ex-situ treatment including installation of treatment system is estimated to be Rs. 1.4 crore. Assuming an average life of the treatment system to be 10 years, the operating expenditure (OPEX) is estimated to be Rs. 4.62 crore over these 10 years. The OPEX cost mentioned is an estimate and does not consider inflation or other changes in the conditions.

## 3. Jarosite Ponds Remediation

Options proposed to remediate/treat existing Jarosite Ponds # 1, 2 and 3 at the premises of Respondent No. 9 Industry.

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**Jarosite Ponds # 1, 2, and 3:**

- Constructed using LDPE liners and brick lining at bottom and all sides. Clay and sand beneath each pond;
- Area of Pond # 1 and Pond # 2 is estimated at 23.330 m<sup>2</sup>, with a depth of 4.5 m; area of Pond # 3 is estimated at 29.875 m<sup>2</sup>, with a depth of 5.7 m.
- Ponds capped using 1 meter of soil above waste, HDPE liner, and 0.5 meter of topsoil with vegetation;
- Total quantity of Jarosite estimated at approximately 2.75 lakh m<sup>3</sup> or 8.5 lakh tons; and
- Leachate and/or surface water escaping from these ponds observed to be impacted with zinc above allowable levels.

**Jarosite Pond # 4:**

- This is a constructed pond using double-liner system, including geo-synthetic clay liners (GCL), double HDPE liner, geo-textile, and a leachate collection system;
- Area of Pond is 24.572 m<sup>2</sup>, with a depth of 12 m, with side walls constructed using approximately 18" thick Reinforced cement concrete (RCC);
- Total quantity of Jarosite estimated at approximately 2.95 lakh m<sup>3</sup> or 9.1 lakh tons;
- Approximate available space for additional material estimated at 7 lakh tons, or approximately 2.25 lakh m<sup>3</sup>; and
- Piezometers installed around the pond at time of construction.

Approximately 8.5 lakh tons of Jarosite have been placed in Ponds # 1, 2, and 3; these ponds were not constructed in a manner to sufficiently prevent migration of the contaminants contained in the Jarosite. Therefore, this waste is proposed to be excavated and transferred to the existing Jarosite Pond # 4. This pond would then be capped, and a long-term operation and monitoring effort would be initiated. Below are the proposed activities to perform the proposed remedial efforts.



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#### ***Investigation of Pond # 4***

The existing Pond # 4 must be reviewed to ensure the integrity of the liner and walls is sufficient for the cell to be used for long-term disposal of the on-site Jarosite.

#### ***Transfer of Waste***

Excavation and transfer of the waste present in Ponds # 1, 2, and 3 should be completed as per DPR. For final closure of Ponds # 1, 2, and 3, the soil from the cap shall be re-used for backfill in the areas where the Jarosite was removed, then a liner placed for storm water retention and treatment, and serve as a defacto cap for the pond area. Additionally, a constructed wetland or phytoremediation system shall be installed within the ponds, allowing for removal of zinc and other CoCs. Storm water, leachate, and any extracted groundwater (if needed) can be treated using the constructed wetland.

#### ***Leachate Collection and Treatment***

To prevent further releases of contaminated liquids to the environment, a leachate collection system must be operational for Pond # 4.

#### ***Storm water and Leachate Treatment System***

To prevent further releases of contaminated liquids to the environment, the storm water that falls on the area must be collected and treated prior to leaving the site. This activity is required due to the presence of Jarosite dust and other contaminated material on the entire surface of the site.

#### ***Long Term Operations and Monitoring Program***

The following activities will require long term operations and monitoring:

- i) Leachate collection system inspection
- ii) Constructed wetland treatment system operation and maintenance
- iii) Storm water drainage system operation and maintenance
- iv) Perimeter groundwater monitoring wells
- v) Cap inspection program

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a) **Jarosite Pond Remediation Schedule (Binani Zinc)**

Anticipated Activity	Sub-activities	Anticipated Duration (days)
Excavation of Pond # 1, 2 & 3	Excavation	500
	Loading of trucks	
	Filling Pond # 4	
Capping of Pond # 4	Capping	200
Site restoration.	Construction of storm water retention pond and constructed wetland and monitoring wells	100

The costs estimated for completing the above activities is about Rs. 29 crore.

**4. Estimated cost for remediation of Edayar contaminated area**

As per accepted DPR, the cost for remediation of Edayar contaminated sites including in and around premises of Respondent No. 9 Industry was estimated at Rs. 47.88 crore.

7. That, in reply to the averments made in the Para-12, it is humbly submitted that as per the terms of NCEF scheme, Central funding for assessment and remediation of contaminated area was limited to 40% of the total project cost. The remaining 60% was to be borne by State Government through Polluter Pays Principle/Public-Private Partnership/State support, etc. The said project was initiated in 6 States including Kerala who had given in-principle approval for funding State's share of 60% (**Annexure-I**). It is also humbly submitted that NCEF scheme has been discontinued by the Government of India, MoEF&CC being the Administrative Ministry for implementing this NCEF project, has released funds to CPCB to complete DPR preparation. In this regard, a copy of the affidavit filed by MoEF&CC, in the matter of OA No. 200 of 2014 and are given at **Annexure-III** for kind reference.

Since NCEF Project of MoEF&CC has been discontinued, the Government of Kerala /Kerala SPCB shall issue necessary directions to Respondent No. 9 Industry to execute remediation works at their own cost as per the DPR prepared by CPCB.

8. That with regard to averments made in the Para-13 & 14, it is humbly submitted that Kerala SPCB may direct Respondent No. 9 Industry to ensure remediation and to



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execute remediation works as per the DPR under the supervision of Kerala SPCB. This Respondent may provide technical assistance and verify the remediation works as and when required. Further, this Respondent may not comment on linking the remediation works with the removal of the plant and machineries from their premises.

9. That with regard to averments made in the Para 15, this Respondent agree to the fact that there is a possibility of contamination in receiving water bodies due to surface run-off from the contaminated soils and sediments in Edayar contaminated area during monsoon.

### Reply on Grounds

10. That, the Para 16 to 19 of the Grounds highlights the Constitutional/ Fundamental Rights guaranteed to the citizens which do not require any comments from this Answering Respondent.

However, it is submitted that as per Rule 23(1) of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, the occupier of the premises, that is Respondent 9 Industry will be liable for all damages caused to the environment or third party due to improper handling and management of the hazardous and other waste generated by them.

11. That with regard to the Para 20 to 22 of the Grounds, it is submitted that Kerala SPCB may direct Respondent No. 9 Industry to ensure remediation and to execute remediation works at their own cost as per the DPR under the supervision of Kerala SPCB. Further, it is submitted that as per Rule 23(1) of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, the occupier of the premises that is Respondent 9 Industry will be liable for all damages caused to the environment or third party due to improper handling and management of the hazardous and other waste generated by them.

12. That with regard to the Para 23 of the Grounds, this Answering Respondent vide letter dated 13.02.2019 has forwarded the accepted/final DPR to the Government of Kerala and Kerala SPCB with request to initiate execution of remediation works through



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Respondent No. 9 Industry. Copy at **Annexure II** (annexed as **Annexure-A4(I)** in OA).

13. That with regard to the Para 24 of the Grounds, this Respondent agree to the fact that there is a possibility of leaching of hazardous contaminants from the Jarosite ponds and may cause damage to the environment due to massive flood during monsoon in the low level area of the locality.
14. That with regard to the Para 25 & 26 of the Grounds, it is submitted that Kerala SPCB may direct Respondent No. 9 Industry to ensure remediation and to execute remediation works at their own cost as per the DPR under the supervision of Kerala SPCB. This Respondent may provide technical assistance and verify the remediation works as and when required. Further, this Respondent may not comment on linking remediation works with the removal of the plant and machineries from their premises.

#### **Reply on Prayers**

15. That with regard to the Para 1 of the Prayers, it is humbly submitted that it is the responsibility of Respondent 9's Industry to remediate the environmental damages caused due to improper management of Jarosite and historic discharges from its premises. Kerala SPCB may therefore direct Respondent No. 9's Industry to execute remediation of Edayar contaminated sites as per DPR prepared by CPCB. The cost incurred by MoEF&CC/CPCB in assessment and DPR preparation may also be recovered from the Respondent No. 9's Industry. The work may be executed as per the authorisation and supervision of Kerala SPCB. Kerala SPCB may also engage any competent consultant to monitor and verify the works executed by Respondent No. 9 Industry. This Respondent may provide technical assistance and also verify the remediation works as and when required.
16. That with regard to the Para 2 of the Prayers, this Respondent may have no comments on linking removal of plant and machineries to execution of remediation works. However, it is humbly submitted that the Kerala SPCB may ensure that Respondent No. 9 Industry executes remediation of Edayar contaminated sites as per DPR prepared by CPCB.



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17. That with regard to the Para 3 of the Prayers, it is humbly submitted that remediation work may be executed by Respondent 9 Industry as per the authorisation and supervision of Kerala SPCB. Kerala SPCB may also engage any competent consultant to monitor and verify the works executed by Respondent 9 Industry. This Respondent No. 4 may provide technical assistance and also verify the remediation works as and when required. Further, it is humbly submitted that the State Level Monitoring Committee (SLMC) may be constituted to monitor and supervise the remediation works.
18. That with regard to the Para 4 & 5 of the Prayers, it is humbly submitted that NCEF Project of MoEF&CC has been discontinued by Government of India. Therefore, the Government of Kerala and Kerala SPCB may issue necessary directions to Respondent No. 9 Industry for execution of remediation works at their own cost as per the DPR prepared by CPCB.
19. That with regard to the Para 6 of the Prayers, this Respondent may humbly submit that a detailed site assessment study was carried out in Edayar area and a DPR for remediation has already been prepared by this Respondent. It is humbly submitted that the priority at this stage may be to contain further release of contaminants from the premises of Respondent No. 9 Industry during every monsoon and to remediate the identified contaminated sites in Edayar area as per DPR. Therefore, this Respondent may have no comments to offer on the proposal of Applicant.

### PRAYER

It is humbly prayed before this Hon'ble Tribunal in the interest of Justice that this Hon'ble Tribunal may be pleased to pass an order to;

- i) Edayar contaminated area including the premises of Respondent No. 9 Industry and the adjoining areas may be remediated as per the DPR prepared by this Respondent No. 4.



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- ii) The cost of assessment and remediation works as per the DPR prepared may be borne by Respondent No. 9 Industry being the responsible party for causing contamination.
- iii) Remediation work may be executed by Respondent No. 9 Industry as per the DPR prepared by CPCB.
- iv) Remediation work may be executed by Respondent No. 9 Industry as per authorisation and supervision of Kerala SPCB. Kerala SPCB may also engage any competent consultant to monitor and verify the works executed by Respondent No. 9 Industry.
- v) This Respondent may provide technical assistance and also verify the remediation works as and when required.

Pass any such and further order, as this Hon'ble Tribunal may deem fit and proper in the facts and circumstances of the case.

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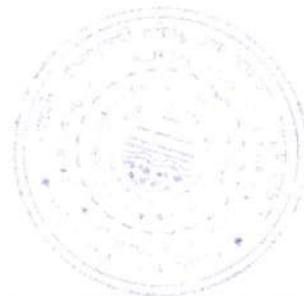
### VERIFICATION

Verified at Bengaluru on this 18<sup>th</sup> day of November, 2021 that the contents of the above counter affidavit are true & correct to best of my knowledge and belief. Nothing has been concealed therein

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CENTRAL POLLUTION CONTROL BOARD  
REGIONAL DIRECTORATE (SOUTH)  
MIN. OF ENV. FORESTS & CC, GOVT. OF INDIA  
BENGALURU - 560 079. MOB : 9480672128





5421/MSUL  
22/12/2011

☎ General: 0471- 2312910, 2318153, 2318154, 2318155 Chairman: 2318150 Member Secretary: 2318151  
e-mail: keralapcb@asianetindia.com FAX: 0471 - 2318134, 2318152 web: www.keralapcb.org

**KERALA STATE POLLUTION CONTROL BOARD**  
**കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്**

Pattom P.O., Thiruvananthapuram – 695 004  
പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/HW/GEN/616/06

Dated: 17/12/2011

From  
The Chairman



To  
The Chairman  
Central Pollution Control Board  
Parivesh Bhavan  
East Arjun Nagar  
New Delhi – 110032

Sub: - Project on remediation of hazardous waste dump site – contribution by the State Government.

Ref: - 1. Letter No. 12-68/2011-HSMD dated 16.11.2011 from the MoEF  
2. That officer letter no. B-29016 (SC)/1/36(VIII)/11/HWMD/1944 dated 29.11.2011.  
3. Govt. letter no. 3532/B2/11/Env't has dated 07.12.2011

Sir,

The Government of Kerala agreed in principle to meet 60% of the project cost for remediation of the hazardous waste dump site 'Kuzhikandom Thodu and banks at Eloor, Kerala' under the National Clean Energy Fund (NCEF) programme. A copy of the letter forwarded to MoEF in this regard by the State Government is enclosed.

Yours faithfully

Enclose: as above

K. S. J.  
CHAIRMAN

for n. a.  
31.12  
1/c HWMD (on leave)  
Dr. Umamant, RA  
26/12/2011

**BY FAX**  
**URGENT****GOVERNMENT OF KERALA**

No. 3532/B2/11/Envvt.

Environment (B) Department,  
Thiruvananthapuram,  
Dated: 07.12.2011

From:

The Principal Secretary to Government

To

Dr. Tishya Chatterjee,  
Secretary, Government of India,  
Ministry of Environment & Forests,  
Paryavaran Bhavan, CGO Complex,  
New Delhi-110 003.  
FAX- 011-24362746.

Sir,

Sub: - Remediation of Contaminated hazardous waste dump sites under  
National Clean Energy Fund (NCEF)-Kuzhikandom Remediation  
Programme, Eloor, Kerala - Reg.

Ref:- Your D.O.letter No.12-68/2011-HSMD dated 16.11.2011

I am directed to invite your attention to the reference cited and to inform that the Government of Kerala agrees in principle to meet 60% of the project cost for remediating the Kuzhikandom Thodu and banks at Eloor, Kerala under the National Clean Energy Fund Programme, subject to the terms and conditions.

Yours faithfully,

**G. RAJEEV**  
Additional Secretary  
for Principal Secretary to Government

Post copy in confirmation

Copy to:-

✓ The Chairman,  
Kerala State Pollution Control Board,  
Thiruvananthapuram  
(vide letter No.PCB/HO/HW/GEN/616/06 dated 16.11.2011)

13/12  
13/12/2011  
CP/CA/ah

CLEF  
13.12.2011

K. SAJEEVAN

Annexure - II

923

Speed Post

F. No: B-29016/59(1)/WMD-I/NCEF (1-10)/2017/16360

February 13, 2019

To,

The Member Secretary  
Kerala State Pollution Control Board,  
Plamoodu Junction, Pattam-P.O.  
Thiruvananthapuram – 695 004, Kerala

**Sub: A template of Bid document for selection of contractor for execution of remediation works as per DPR prepared under NCEF Project – reg**

Sir,

This has reference to the project for remediation of contaminated areas identified at Eloor & Edayar, Kerala under National Clean Energy Fund (NCEF). The approved DPRs (Eloor & Edayar) was already forwarded to SPCB and State Government vide letter & email dated 23/08/2018 & 04/02/2019, respectively.

As per the contract, the Consultant has provided a template of Bid documents (i.e. Step-7 of the project) for selection of remediation contractor.

The aforesaid template of Bid document is enclosed for kind reference, which may be utilized with necessary modifications as required for calling bids, in case execution of remediation works is initiated by State Government Agency.

Yours faithfully,



(B. Vinod Babu)

Additional Director & Divisional Head,  
Waste Management Division-I

Encl.: As above

Copy to:

The Principal Secretary,  
Environment Department, Government of Kerala,  
South Sandwich Block, Room – SSBT II,  
4th Floor, Thiruvananthapuram-695001, Kerala

: For kind information, please

कन्द्रीय प्रदूषण नियंत्रण बोर्ड

निर्गल.....

दिनांक.....

13/02/19

o/c



(B. Vinod Babu)

F. No. 29016/59(1)/WM-I/NCEF (10)/2017/16002

February 04, 2019

To,

The Principal Secretary,  
Environment Department, Government of Kerala,  
South Sandwich Block, Room – SSBT II,  
4th Floor, Thiruvananthapuram-695001, Kerala

**Sub: Request for arrangement of State share for Project on "Remediation of hazardous waste contaminated dumpsites" under National Clean Energy Fund (NCEF) - reg**

Sir,

This has reference to remediation of contaminated areas located at Eloor & Edayar, Kochi, Kerala under National Clean Energy Fund (NCEF) project of Ministry of Environment, Forest & Climate Change, Govt. of India. In-principle commitment was given by Govt. of Kerala to bear 60% of cost for the said project (copy enclosed for ready reference).

Phase-I of the project that is preparation of DPR has been completed by CPCB at a cost of Rs. 2,91,54,341/- (including taxes) excluding consultancy services for execution of remediation works. The DPR was accepted by Project Steering Committee (PSC) in its meeting held on 07/06/2018.

In view of the above, it is requested that State Government shall remit 60% of above cost that is **Rs. 1,74,92,605/-** including taxes to the account of CPCB towards preparation of DPR. Further, State may initiate necessary steps for execution of remediation works as per the DPR.

Yours faithfully

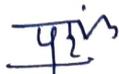
  
(Prashant Gargava)  
Member Secretary

Encl.: As above

Copy to:

The Chairman  
Kerala State Pollution Control Board,  
Plamoodu Junction, Pattam-P.O.  
Thiruvananthapuram – 695 004, Kerala

: For kind information and follow-up  
with State Govt., please

  
(Prashant Gargava)

केंद्रीय प्रदूषण नियंत्रण बोर्ड  
निर्गत.....  
दिनांक..... 6/2/19 o/c

**BEFORE THE NATIONAL GREEN TRIBUNAL,  
PRINCIPAL BENCH, NEW DELHI  
Original Application No. 200 of 2014  
(M.A. No. 254/2018)  
(C.W.P. No. 3727/1985)  
And  
Original Application No. 668 of 2017  
(Earlier M.A. No. 923/2017 In Original Application No. 200/2014)**

**IN THE MATTER OF:**

M.C. Mehta .....Applicant

Vs.

Union of India & Ors. ....Respondent

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S. No.	Particular	Page No.
<u>1</u>	Affidavit on behalf of Ministry of Environment, Forest and Climate Change, Respondent No. 1.	

**PLACE****DATED:**

**Through**

**Counsel For Respondent No. 1**

1/10  
P. Singh  
A. Singh  
g/c

**BEFORE THE NATIONAL GREEN TRIBUNAL,  
PRINCIPAL BENCH, NEW DELHI  
Original Application No. 200 of 2014  
(M.A. No. 254/2018)  
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**IN THE MATTER OF:**

M.C. Mehta .....Applicant

Vs.

Union of India & Ors. ....Respondent

**AFFIDAVIT ON BEHALF OF THE MINISTRY OF ENVIRONMENT, FOREST  
and CLIMATE CHANGE, RESPONDENT NO. 1**

I, Yogendra Pal Singh, working as Scientist- 'D' in the Ministry of Environment, Forest and Climate Change (formerly known as the Ministry of Environment and Forests) having office at Indira Paryavaran Bhawan, JorBagh Road, New Delhi- 110 003 do hereby solemnly affirm and state as under:

- 1) That I, in the capacity of Scientist- 'D' of the Ministry of Environment, Forest and Climate Change, am fully conversant with the facts of the case and competent to swear this affidavit on behalf of Respondent No.1.
- 2) That the deponent craves liberty to raise any further submissions or file additional affidavits if need arises during the course of proceedings.
- 3) That this Hon'ble Tribunal vide order dated 25th May 2018, was pleased to direct Central Government;

*"As far as Central Government is concerned, we direct  
that State and Central Government shall file an affidavit*

*by the next date of hearing stating the time that they will ensure that the amount is released for the removal of the dump of waste."*

- 4) It is submitted that a project proposal on "Remediation on Hazardous Waste Dumpsites" has been initiated by this Ministry in the year 2011 under National Clean Energy Fund (NCEF) scheme.
- 5) That the aforesaid scheme envisaged assessment of contamination, design of remediation plan, preparation of bid-documents, remediation and supervision of remedial activities for 12 priority sites.
- 6) That, CPCB has initiated projects in 6 States for remediation of 8 contaminated sites, which had agreed in principle, for States share. Remediation of Chromium contaminated area, Rania, Khanpur Dehat, U. P. is one of the 8 contaminated sites where the project was initiated. In this connection, an amount of Rs. 10 crores were released to CPCB in 2012 for calling of Expression of Interests (EOIs) and award of work for Detailed Project Report (DPR) preparation. Further, on the request of CPCB, MoEF&CC has released Rs. 5.5 crore from HSMD Plan Scheme on 16.3.2018 to complete the Phase I of the project i.e. DPR preparation.
- 7) It is submitted that now, NCEF Scheme has been discontinued by the Government of India. Therefore, Ministry has no dedicated scheme and allocated budget under which, fund could be released for the execution of the remediation work. However, funds were released by the MoEF&CC for only DPR preparation. Since NCEF project ceased to exist the proposal of cost share in 40: 60 ratio by the Central and State Government may not arise. In case of the site where polluter is identified, it shall be responsibility of the polluter to remediate the site as per polluter pays principle. However, in case of site, where polluter is not traceable or identified, it shall be responsibility of the State Government to remediate the site with their funding in larger public interest, to safeguard the health risk of the receptor population in the affected area.
- 8) For execution of Remediation of Chromium contaminated area at Rania, Kanpur Dehat, UP, CPCB is finalising a Detailed Project

Report which would contain a complete remediation plan. The funding options as stated in Para 7 above will have to be explored for this site as well.

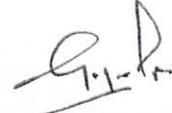
- 9) It is most humbly prayed that this Hon'ble Tribunal may kindly pass such order(s) as may be deemed fit and proper in the facts and circumstances of the case.



(**DEPONENT**)  
(YOGENDRA PAL SINGH)  
वैज्ञानिक 'डी' / Scientist 'D'  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय  
Min. of Environment, Forest and Climate Change  
भारत सरकार, नई दिल्ली  
Govt. of India, New Delhi

**VERIFICATION**

Verified at New Delhi on this day of \_ \_ July, 2018 that the contents of the above affidavit are true and correct to my knowledge and as per official records maintained in the routine course of business. No part of the above affidavit is false and nothing material has been concealed there from.



(**DEPONENT**)  
(YOGENDRA PAL SINGH)  
वैज्ञानिक 'डी' / Scientist 'D'  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय  
Min. of Environment, Forest and Climate Change  
भारत सरकार, नई दिल्ली  
Govt. of India, New Delhi