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केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार
MINISTRY OF ENVIRONMENT FOREST & CLIMATE CHANGE GOVT OF INDIA

HON'BLE NGT MATTER

March 4, 2024

CP-26/3/2021-WM-I-HO-CPCB-HO

10602

To

The Member Secretary

SPCBs

(As per the list)

Sub: Minutes of tenth Meeting with SPCBs to review the action taken reports as per in compliance to the directions of Hon'ble NGT order dated 29.01.2021 in O.A. No. 804 of 2017 in the matter of Rajiv Narayan & Anr. Vs. Union of India & Ors; w.r.t Contaminated Sites – reg

Sir/Madam,

Central Pollution Control Board has conducted 10th review meeting with SPCBs on 15.02.2024 through VC in compliance to the directions of Hon'ble NGT in the matter of OA No. 804 of 2017. Minutes of meeting is enclosed herewith for further necessary action.

Yours faithfully,

(V. P. Yadav)

Director & Head,

Waste Management Division-I

Encl.: As above

‘परिवेश भवन’ पर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, Delhi-110032



केन्द्रीय प्रदूषण नियंत्रण बोर्ड
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MINISTRY OF ENVIRONMENT FOREST & CLIMATE CHANGE GOVT OF INDIA

(By Email)

HON'BLE NGT MATTER

March 4, 2024

CP-26/3/2021-WM-I-HO-CPCB-HO

10602-10605

To

The Member Secretary
SPCBs
(As per the list)

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Yours faithfully,

(V. P. Yadav)

Director & Head,

Waste Management Division-I

Encl.: As above

Copy to:

- ✓ 1. Regional Directorates, : For information and with request to follow-up the matter with concern
Central Pollution Control Board SPCBs, please
(As per the list)

(V. P. Yadav)

List of SPCBs

1. The Member Secretary
Goa Pollution Control Board
Near Pilerne Industrial Estate,
Oppo. Saligao Seminary, Saligaon-Bardez
Goa – 403511
2. The Member Secretary
Kerala Pollution Control Board
Pattom P.O. Thiruvananthapuram-695004
3. The Member Secretary
Punjab Pollution Control Board,
VatavaranBhawan, Nabha Road, Patiala,
Punjab
4. The Member Secretary
Tamil Nadu Pollution Control Board
76, Mount Salai, Guindy, Chennai – 600032

List of Regional Directorates, CPCB:

1. The Regional Director
Regional Directorate - Bengaluru
A-Block, Nisarga Bhavan, 1st and 2nd Floors,
7th D Cross, Thimmaiah Road, Shivanagar,
Bengaluru-560079
2. The Regional Director
Regional Directorate – Chennai
Second Floor, No.77-A, South Avenue Road,
Ambattur Industrial Estate, Ambattur Taluk,
Thiruvallur District, Tamil Nadu
Chennai- 600058
3. The Regional Director
Regional Directorate – Chandigarh
BSNL Telephone Exchange, 2nd Floor,
Sector -49 C, Chandigarh – 160047

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Final Minutes of the Tenth Review Meeting with SPCBs for compliance to the directions of Hon'ble NGT (PB) order dated 29.01.2021 in OA No. 804 of 2017 in the matter of Rajiv Narayan & Anr. Vs. Union of India & Ors; w.r.t, Contaminated sites held on 15.02.2024

In compliance of Hon'ble NGT order dated 29.01.2021 in OA No. 804 of 2017 in the matter of Rajiv Narayan & Anr. Vs. Union of India & Ors, the tenth review meeting with 04 SPCBs (namely (i) Goa, (ii) Kerala, (iii) Punjab, & (iv) Tamil Nadu), held through VC on 15.02.2024 to discuss about the action taken report on assessment & remediation of contaminated/probable contaminated sites. The meeting was attended by officials of concerned SPCBs & CPCB-Regional Directorates and dealing officials of CPCB, HO, Delhi. List of the participants is given at **Annexure-I**.

At the outset, Sh. G. Rambabu, welcomed all the participants and briefed the agenda of the meeting. Thereafter, presentation was made on detailed action points to comply with various directions passed by Hon'ble NGT in aforesaid matters regarding identification, assessment of contaminated sites followed by status of on-going DPR preparations and execution of remediation works by the Responsible parties. Accordingly, State wise status was discussed as given at and its deliberations is given below:

1. **Goa:** Goa PCB has submitted action taken report vide its letter dated 15.09.23 on 02 Contaminated sites (CS) and 01 Probable contaminated site (PCS) in Goa. Accordingly, the reports were examined and made the following observations/suggestions are as below:

- (i) It is submitted that about 50,000 MT of Hazardous waste (HW) is still lying at the site entitled "M/s Sunrise Zinc Ltd, Plot No. L-2 & M/s Nicomet Industries Ltd Plot no, L-15, Punjim, Goa", and with regard to the disposal of said HW from the premises, unit had requested D/o Expenditure for financial assistance. Analysis result of GW samples revealed contamination with heavy metals.

CPCB Suggestion: Hazardous waste lying at the site should be lifted and disposed of through secure landfill followed by treatment within 06 months and accordingly submit the action taken report to CPCB. In case of failure to comply, *as per the Hon'ble NGT order dated 26.08.2019 in OA No. 804/2017, environmental compensation shall be imposed to Goa SPCB at the rate of Rs. 10 lakh per site.*

After removing HW from the site, detailed investigation of the site should be carried out to ascertain the extent of contamination based on the Guidance document on assessment and remediation of contaminated sites published by MoEF&CC. In this regard, submit the progress report of investigation study to CPCB from time to time.

- (ii) For the site entitled "Quarry located in Village Pilium of DharBandora, Goa", it is informed that HW was lifted and utilized in cement kiln for co-processing during 2011-2016. Old reports revealed that soil was contaminated with heavy metals.

CPCB Suggestion: As no fresh report during 2023-24 is submitted by Goa PCB, it is suggested to carry out detailed investigation of the site to ascertain the extent and level of contamination

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and accordingly submit the investigation report to CPCB within as per the timelines specified at **Annexure-II**.

- (iii) For the site entitled "M/s Zuari Agro Chemical Ltd., Goa", it is informed that HW was lifted and stored in on-site SLF. Goa PCB has also carried out soil and SW sampling. However, analysis result is awaited.

CPCB Suggestion: Goa PCB is suggested to carry out detailed investigation of the site to ascertain the extent and level of contamination and accordingly submit the investigation report to CPCB within as per the timelines specified at **Annexure-II**.

Further, it is suggested that a Joint team of officials from Goa SPCB and CPCB (HO/RD, Bengaluru) may visit the aforesaid 03 sites followed by sampling within 2 months.

2. Kerala: Kerala SPCB has submitted action taken report for following 06 probable/contaminated sites vide its letter dated 19.07.2023 and 17.11.2023. Accordingly, the reports were examined and following observations and suggestions are made as below:

- (i) Out of **03 contaminated sites at Eloor-Edayar**, Kochi, Kerala, Kerala SPCB informed that;
- (a) For **01 site** at Kuzikundam Thodu (Creak), Eloor, ETP location is yet to be finalized and action will be taken to execute an agreement between M/s Hindustan Insecticides Limited (M/s HIL), Kochi and Kerala SPCB.

CPCB suggestion: Kerala SPCB should expedite in installation of ETP within the premises of M/s HIL as part of the DPR. Further, it is suggested that joint sampling by the team of officials from Kerala SPCB and CPCB (HO/RD, Bengaluru) should be carried out as observed that substantial decrease in concentration of heavy metals and pesticides at the said contaminated sites due to several floods occurred in 2018, 2021 and 2022.

- (b) For **02 sites** at Edayattuchal and erstwhile closed premises of M/s. Binani Zinc Ltd., meetings of expert committee were held as per direction of Hon'ble NGT (SZ) in matter of OA No. 143 of 2020 and 182 of 2021. In this regard, CPCB issued 'Guidelines for Management of Jerosite'.

CPCB suggestion: Kerala SPCB may finalize the timelines for lifting and disposal of waste from the unsecured jarosite ponds in secured manner and status in this regard may be submitted to CPCB. To assess the present status of the site, joint visit of officials from Kerala SPCB and CPCB (RD, Bengaluru) may be proposed within 2 months.

- (ii) For 2 PCSs at Vembanad, Kottayam & Bramhpuram, Kochi, it was observed that analysis results for CoCs only submitted and result reveals no contamination.

CPCB suggestion: The aforesaid PCSs may be proposed to delist as no contamination is reported.

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- (iii) For the remaining 01 site at Vadavathoor, Kottayam, with reference to Kerala SPCB letters dated 31.10.2023 and 17.11.2023, it was submitted that bio-remediation of Municipal Solid Waste (MSW) dumpsite located at Vadavathoor, Kottayam, Kerala has been sanctioned.

CPCB suggestion: CPCB vide letter dated 19.12.2023 informed that MSW dumpsite at Vadavathoor, Kottayam may be taken up for remediation as per the guidelines issued by CPCB from time to time. In this regard, KSPCB may submit progress report to CPCB.

3. **Punjab:** Punjab PCB vide its letter dated 01.11.2023 has provided action taken report for 8 contaminated sites in Punjab and submitted as follows:

- i) For CS at M/s Mahaluxmi Orgo Chemical Industries, Nabha Road, Bhawanigarh, Sangrur, w.r.t., Hon'ble NGT order dated 02.01.2024 in M.A. No. 103/2022, in OA No. 169/2021, joint committee was formed and HW was lifted from the demarked plot. Thereafter, 45 Nos. of GW and soil samples were carried out at that area and analysis report is awaited.

CPCB suggestion: In compliance of the Hon'ble NGT directions, Punjab PCB may submit the progress report to CPCB time to time.

- ii) For out of other 8 CS, 1 site namely; Ajnali Village, Mandi Gobindgarh, Punjab-147301, may be proposed to delist and the remaining 7 sites, action taken reports along with analysis result is submitted by PPCB. However, it has been observed that soil & GW samples collected from 01-02 locations only. Hence, it may be difficult to draw a conclusion whether the site is contaminated or not.

CPCB suggestion: For the aforesaid 7 CS, adequate no. of sampling (i.e. from 5-6 locations) for different matrices should be carried out by PPCB. In this regard, PPCB shall comply the suggestions/observations made by CPCB as annexed at **Annexure-II** and submit its action taken reports as per specified timelines.

4. **Tamil Nadu:** There are 11 sites in TN; wherein 05 sites identified as PCS and other 06 sites are as CS. TNPCCB has informed the following:

- i) Mercury contaminated site at Kodaikanal, remediation work is underway. As of now 7,200 MT of contaminated soil has been remediated. It is also informed that to complete the remediation work, it may take 1 more year. Further, proposal for treatment of Hg-contaminated slurry is awaited from CSIR-NEERI.
- ii) BPCL oil-contaminated site at Tondiarpet, both the Soil Vapour Extraction (SVE) systems are not yet resumed and regarding health study task assigned to ICMR, report is still awaited.
- iii) In case of chromium contaminated site at Ranipet, tendering for executing interim remedial measures is underway. In this regard, CPCB-RD, Chennai has submitted that as per Hon'ble NGT orders, Health study of the affected area may be conducted by TNPCCB and monitoring wells should be installed to monitor the quality of the GW of the said area.

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- iv) For other 02 contaminated sites, namely Noyyal river, Tirupur & Eachangadu, Cuddalore, Tamil Nadu, preliminary site assessment reports have been received from TNPCB and in case of remaining 6 sites (SPCS & 1CS), assessment reports are still awaited.

The site namely, Noyyal river, Tirupur, is proposed for delisting as no contamination is reported.

CPCB suggestion:

- (i) TNPCB shall monitor and verify the on-going remediation works underway by the Responsible parties for Kodiakanal and Tondairpet, Chennai contaminated sites. In this regard, submit the progress reports to CPCB from time to time.
- (ii) TNPCB may expedite in preparing tender document for interim remediation of Ranipet site in time bound manner as the case is also pending before Hon'ble NGT (SZ) in OA No. 186 of 2020 (Suo-Moto). In this regard, CPCB-RD, Chennai is requested to follow up the issue with TNPCB.
- (iii) For the namely, Eachangadu, Cuddalore, CPCB has examined the report and no contamination is reported w.r.t, CoCs.

However, CPCB-RD, Chennai has submitted that the site at Eachangadu, Cuddalore is nearby SIPCOT industrial area and during rainy season white coloured surface run-off along with smell of chemicals is observed at downstream of natural canal. Hence, TNPCB should comply the suggestions/observations made by CPCB as annexed at **Annexure-II** and submit action taken report as per specified timeline.

- (iv) For remaining 06 sites, TNPCB shall comply the suggestions/observations made by CPCB as given at **Annexure-II** and submit action taken report as per specified timeline.

Recommendations/Action Points:

1. Disposal of visible/identified hazardous waste through secured landfill

- SPCBs shall prepare plan to lift and dispose of visible/identified hazardous waste followed by stabilization through secured landfill
- It is to ensure that lifting and disposal of visible/identified hazardous waste followed by stabilization through TSDFs/SLFs shall be as per available guidelines/SOPs and the Hazardous and Other Wastes (Management & Transboundary Movement), Rules, 2016 (HOWM Rules, 2016)

In case of failure to comply, as per the Hon'ble NGT order dated 26.08.2019 in OA No. 804/2017, environmental compensation (EC) shall be imposed to concerned SPCBs at the rate of Rs. 10 lakh per site.

2. Preliminary site assessment/detailed site investigations

- To ascertain the extent and nature of contamination, SPCBs shall carry out preliminary site assessment followed by sampling of soil/GW/SW/sediment from at least 3-4 locations of each



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matrix (as applicable) as per the timelines specified at **Annexure-II** and accordingly submit the reports to CPCB.

- SPCBs shall carry out detailed site investigation, wherein concentration levels exceeded the screening levels/standards during the preliminary site assessment.

3. States to take responsibility

- For high risk "Orphan Sites", where there is historic dumping & for which DPRs have already been prepared under various project, and the polluter could not be identified or polluter is not in a position to pay for remediation costs.

In this regard, SPCBs may follow-up with concerned State Govt. for execution of remediation works.

4. Update the "Inventory of contaminated Sites"

- SPCBs need to be updated the 'Inventory of contaminated sites' from time to time
- Furnish the updated inventory to CPCB for maintaining a national list in public domain.

5. Constitute State Level Empowered Monitoring Committee (SLEMC)

SPCBs shall constitute State Level Empowered Monitoring Committee (SLEMC), having representatives from Dept. of Environment, Industries Dept., SPCB/PCC, CGWA/SGWA, relevant Experts, etc. within one month for effective implementation of remediation plans.

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Annexure-I

List of officials participated (through VC)

CPCB (HO)- Waste Management Division-I

1. Sh. G. Rambabu, Scientist-D
2. Ms. Kokila M., Scientist-B
3. Dr. Gargi Biswas, RA-III
4. Sh. Thorat Siddhesh, SLA

CPCB, Regional Directorates

5. Ms. H.D. Varalaxmi, Regional Director, Chennai
6. Sh. J. Chandra Babu, Regional Director, Bengaluru
7. Sh. Vivek K, Scientist-D, CPCB-RD, Bengaluru
8. Ms. Soumya D, Scientist D, CPCB RD Chennai
9. Sh. J P Meena, Sci-D, CPCB-RD Chandigarh
10. Dr. Narendra Sharma, Scientist-F, CPCB-RD, Chandigarh

SPCBs ((i) Goa, (ii) Kerala, (iii) Punjab, & (iv) Tamil Nadu)

11. Sh. Pravin Fal Dessai, Assistant Environmental Engineer, Goa State Pollution Control Board;
12. Sh. S.Bharathiraja, DEE, TNPCB Tiruppur North;
13. Dr. P Anantha Narayanan, Assistant Environmental Engineer, TNPCB, Cuddalore
14. Sh. Guneet Sethi, Environmental Engineer, PPCB, Regional Office, Sangrur
15. Er. Bindhu Radhakrishnan, CEE, Head Office, Kerala SPCB
16. Sh. Hardeep Kaur, Environmental Engineer, PPCB
17. Sh. Avtar Singh, Scientific Officer, Punjab Pollution Control Board
18. Dr. S. Rajan, Addl. Chief Environmental Engineer, TNPCB, Corporate Office, Guindy, Chennai
19. Tmt. T. Rathi, Environmental Engineer, TNPCB, Corporate Office, Guindy, Chennai
20. Tmt. M. Veda, Assistant Environmental Engineer, TNPCB, Corporate Office, Guindy, Chennai
21. Sh. Baburajan P K, Chief Environmental Engineer, Regional office, Kerala SPCB



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Annexure-II

Table-1: State wise distribution of probable/contaminated sites:

S. No.	States/UTs	Updated status as on Feb, 2024				Remediation Work (Underway)
		Total Sites	Probable Contaminated Sites (PCS)	Contaminated Sites (CS)	Proposed to De-list	
1	Goa	3	2	1	-	-
2	Kerala	4	0	4	2	1
3	Punjab	9	0	8	1	
4	Tamil Nadu	11	5	5	1	2

State wise compliance status on Action taken by SPCBs viz. (i) Goa; (ii) Kerala; (iii) Punjab & (iv) Tamil Nadu, is given below:

Goa

Goa PCB has submitted action taken report vide its letter dated 15.09.23 on "Contaminated sites (CS) /Probable contaminated sites (PCS)" in Goa. Accordingly, the reports were examined and made the following observations/suggestions are as below:

S. No.	Name of the Site	CS/ PCS	Action taken/initiated by Goa PCB	Observations/ Suggestions of CPCB
1.	M/s Sunrise Zinc Ltd, Plot No. L-2 & M/S Nicomet Industries Ltd Plot no, L-15, 19 & 20, Cuniculum Industrial Estate, Punjim, Goa	CS	<p>Goa PCB has inspected the site and it is informed that 50,000 MT of HW is still lying at the site.</p> <p>With reference to GPCB letter dated 29.11.2021, it was informed that GW was collected from 04 piezometer wells and analysed for heavy metals. Analysis result reveals that GW is contaminated with Cadmium, Copper, Nickel & Zinc, w.r.t., BIS for drinking water.</p> <p>Further with regard to the disposal of HW from the premises, unit had requested DoE for financial assistance.</p>	<p>HW should be lifted and disposed followed by stabilization through secure manner within six months. In case of failure to comply, as per the Hon'ble NGT order dated 26.08.2019 in OA No. 804/2017, environmental compensation shall be imposed to Goa SPCB at the rate of Rs. 10 Lakh per site.</p> <p>Goa SPCB should carry out Leachate sampling at the site, as HW is still lying.</p> <p>After lifting of the HW from the site, detailed site investigation may be carried out based on the Guidance document on assessment and remediation of contaminated sites published by MoEF&CC and detailed investigation report shall be submitted within 06 months from the execution of the detailed investigation.</p>
2.	Quarry located in Village Pilium	CS	Goa PCB has inspected the site and it is informed that HW had utilized in cement kiln for co-	As no fresh report during 2023-24 is submitted by Goa PCB should carry out detailed site investigation to

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S. No.	Name of the Site	CS/ PCS	Action taken/initiated by Goa PCB	Observations/ Suggestions of CPCB
	of Dharbandora, Goa-403401		<p>processing during excavation and clearing process held in 2 phases (Phase-1 in 2011 & Phase-2 in 2016). In this regard, old report dated 03.10.2017 has been submitted.</p> <p><i>Further, with reference to old report dated 29.11.2022, it was submitted that sampling of Soil was carried out from 02 locations and surface water was carried out from each 01 upstream & downstream locations. The same was analysed for heavy metals & CoCs.</i></p> <p><i>Analysis result of soil samples revealed that soil is contaminated with Mercury, Copper, Nickel, Chromium & Arsenic, w.r.t., CCME-Screening level of Soil for industrial land use.</i></p> <p><i>Analysis result of surface water reveals no contamination.</i></p>	assess the extent of contamination and submit the report to CPCB within 2 months.
3.	Old site of immobilization and containment at M/s Zuari Agro Chemical Ltd., Goa	PCS	<p>Goa PCB has inspected the site and it is informed that HW has been lifted and stored in on-site SLF. Goa PCB has carried out soil and SW sampling. However, analysis result is awaited.</p> <p><i>In this regard, GSPCB has submitted old report prepared by CSIR-NEERI in 2005; wherein, analysis result of post-closure GW samples revealed that it was contaminated with Pb, Mn, Ni and Iron. Further, GSPCB had submitted another old analysis result of GW samples carried out in March, 2013 and it revealed no contamination.</i></p>	Goa PCB shall submit action taken report along with analysis result of fresh soil, SW, sediment and GW samples within 2 months.

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Kerala

Kerala SPCB has submitted action taken report for following **06 probable/contaminated sites** vide its letter dated 19.07.2023 and 17.11.2023. Accordingly, the reports were examined and following observations and suggestions are made as below:

S. No.	Name of the Site	CS/PCS	Action taken/Initiated by Kerala PCB	Observations/ Suggestions by CPCB
1.	Kuzhikandom Thodu (Creek), Kerala	CS	<p>DPR is completed under NCEF project.</p> <p>In the review meeting held by Additional Chief Secretary on 09.08.2022 at Regional Office, Ernakulam, directed to the Chief Environmental Engineer of RO, Ernakulam to assess present quality of soil and sediments, in view of the floods that have occurred frequently in 2018, 2021 and 2022. RO, Ernakulam has initiated action for re-assessment.</p> <p>Accordingly, re-sampling was done and analysis results revealed the decrease in concentrations of Heavy metals & Pesticides in compare to the result of 2019.</p> <p>ETP location is yet to be finalized and action shall be taken to execute an agreement between HIL and KSPCB.</p>	As it was observed that substantial decrease in concentration of heavy metals and pesticides, joint sampling by the team of officials from Kerala SPCB and CPCB (HO/RD, Bengaluru) may be carried out.
2.	Edayar, Edayattuchal Kochi, Kerala (in & around the premises of M/s. Binani Zinc Ltd.)	CS	<p>DPR is completed under NCEF project.</p> <p>As the case is heard by Hon'ble NGT (SZ) in OA No. 143 of 2020 and 182 of 2021; CPCB has issued guidelines for management of Jarosite.</p>	Kerala SPCB may finalize the timelines for lifting and disposal of waste from the unsecured jarosite ponds in secured manner and status in this regard may be submitted to CPCB. To assess the present status of the site, joint visit of officials from Kerala SPCB and CPCB (RD, Bengaluru) may be proposed within 2 months .
3.	Edayar, Chakkarachal Kochi, Kerala (in & around the premises of M/s. Binani Zinc Ltd.)	CS	<p>Since the matter is sub-judicial, the joint committee suggested for further sampling of sediment/soil and crops/plant from the paddy fields to verify the present status of contamination.</p>	
4.	Vadavathoor, Kottayam	CS	<p>Site was inspected by Kerala SPCB and it is informed that the spot MSW dumping yard of Kottayam municipality.</p> <p>During inspection, GW samples were collected from 02 wells. Analysis was done for CoC only and result reveals</p>	With reference to the Kerala SPCB letters dated 31.10.2023 and 17.11.2023 regarding sanction for bio-remediation of Municipal Solid Waste (MSW) dumpsite located at

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S. No.	Name of the Site	CS/ PCS	Action taken/Initiated by Kerala PCB	Observations/ Suggestions by CPCB
			<p>biological contamination w.r.t., BIS Drinking water standard for Total Coliform.</p> <p><i>However, old report revealed as below:</i></p> <p>i. In GW Mercury was reported higher than prescribed limit of BIS drinking water standard.</p> <p>ii. Soil was contaminated with Chromium & Nickel.</p>	<p>Vadavathoor, Kottayam, Kerala, the matter has been examined and it is to inform vide CPCB letter dated 19.12.2023 that MSW dumpsite at Vadavathoor, Kottayam may be taken up for remediation as per the guidelines issued by CPCB from time to time.</p> <p>In this regard, KSPCB may submit progress report to CPCB.</p>
5.	Vembanad (Vembanad Kayal or Vembanad Kol), Kottayam, Kerala-686001	PCS	<p>i. Site was inspected by Kerala SPCB and identified as wastewater drainage at Aroor, Alappuzha. However, no hazardous waste generating industries are found near this point.</p> <p>ii. Soil and GW sampling was carried out. Analysis has been done for CoCs only and result reveals no contamination</p>	<p>Concentrations of CoCs are found within the range of screening level/standard.</p> <p>Proposed to de-list.</p>
6.	Bramhपुरam, Kochi-682303	PCS	<p>i. Site is inspected by Kerala SPCB followed by soil and groundwater sampling from 02 locations.</p> <p>ii. Analysis has been done for CoCs only and result reveals no contamination.</p>	

Punjab

Punjab PCB vide its letter dated 01.11.2023 has submitted action taken report on contaminated sites (CS) / probable contaminated sites (PCS) for following 9 contaminated sites in Punjab. In this regard, observations/suggestions of CPCB are as below:

S. No.	Name of the Site	CS/ PCS	Action taken/initiated by Punjab PCB	Observations/ Suggestions by CPCB
1.	Mahaluxmi Orgo Chemical Industries, Nabha Road, Bhawanigarh, Sangrur	CS	<p>M/s Mahaluxmi Orgo Chemical industries was earlier in operation and was involved in the manufacturing of H-Acid. However, the Industry had closed down its operations and there are no industrial activities at this site. Further, as per Hon'ble NGT order dated 02.01.2024 in M.A. No. 103/2022, and OA No. 169/2021, it was submitted that:</p> <p><i>"...And whereas, the layer of soil laid over the hazardous waste dumped at the site is</i></p>	<p>With reference to Hon'ble NGT matter in O.A. No. 169 of 2021, vide order dated 20.07.2021 had constituted a five members Joint Committee and the said Joint Committee in its report dated 30.3.2022 submitted that groundwater and soil has been contaminated due to</p>

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S. No.	Name of the Site	CS/ PCS	Action taken/initiated by Punjab PCB	Observations/ Suggestions by CPCB
			<p><i>required to be removed from the property to ensure that the site is contaminated levelled properly and proper soil sampling and Geophysical imaging is carried out by National Environmental Engineering Research Institute, Nagpur.</i></p> <p><i>And whereas, it is pertinent to mention here that M/s Maha Laxmi Orgochem Industries (Proprietor M/s Matharu Steel Pvt. Ltd., (Bhawanigarh, Nabha Road, Bhawanigarh, District Sangrur during the operation of the industrial unit has dumped industrial / hazardous waste in the land which has now been sold to Sh. Bhupinder Pal Singh;..."</i></p> <p>In view of the above, it is submitted that the work for lifting the soil from site has been commenced and ~2,50,000 cubic feet of soil has lifted from site and work for shifting the remaining soil and levelling of site will be completed by 31.01.2024.</p> <p>Moreover, Analysis result of GW sample revealed contamination with colour, Copper, fluoride, TDS, sulphate and nitrate as reported higher than acceptable limit of BIS drinking water standard.</p>	<p>illegal discharge of untreated trade effluent and dumping of hazardous waste by the industry more than 15 years ago, and also suggested short term and long term remediation plans of the contaminated site.</p> <p>In compliance of the Hon'ble NGT, Punjab PCB may submit the progress report to CPCB time to time.</p>
2.	Basti Sheikh, Jalandhar	CS	<p>PPCB has Inspected the dumpsite and carried out soil sampling from 2 locations and GW sampling from 1 location. Presently park has been developed at the site. Analysis result reveals that:</p> <ol style="list-style-type: none"> GW parameters are within the acceptable/permisible limits as per Indian Standard for Drinking Water). Soil is contaminated with Zinc w.r.t., screening level of Residential land use. 	<p>It was observed that only 01 GW sample collected. Hence, it may be difficult to draw a conclusion whether the site is contaminated or not. It is also observed that soil is contaminated with HM.</p> <p>Therefore, it is suggested that Punjab PCB may carry out adequate (5-6) number of soil samples in & around the site and submit the investigation report to CPCB within 2 months.</p>
3.	Hambran Road MSW Dump Site, Ludhiana	CS	<p>PPCB has inspected the MSW dumpsite and carried out soil and GW sampling. Analysis result reveals that:</p> <ol style="list-style-type: none"> GW parameters are within the acceptable/permisible limits as per Indian Standard for Drinking Water. 	<p>It was observed that only 01 soil & GW sample collected. Hence, it may be difficult to draw a conclusion whether the site is contaminated or not.</p>

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S. No.	Name of the Site	CS/ PCS	Action taken/initiated by Punjab PCB	Observations/ Suggestions by CPCB
			ii. Soil samples reveal no contamination. However, it is alkaline in nature.	Therefore, it is suggested that Punjab PCB may carry out adequate (5-6) number of soil samples in & around the site and submit the investigation report to CPCB within 2 months . <i>Based on the revised investigation report, decision may be taken to de-list.</i>
4.	Buddha Nullah, Ludhiana, Punjab	CS	As per old report submitted by PPCB, it was informed that regular monitoring of the said Nullah is being carried out by PPCB as industrial effluent was carried through it. PPCB has inspected the site and carried out Soil sampling from 2 locations, Surface water and Groundwater sampling from 1 location. Analysis result reveals that: i. GW parameters are within the acceptable/permissible limits as per Indian Standard for Drinking Water. ii. Parameters for Surface water samples are within the limit of standard w.r.t, inland surface water discharge, except: TDS, hardness and Nitrate; iii. Soil samples reveal no contamination.	PPCB may carry out sediment sampling as the industrial waste water from ETP is flowed through the said Nullah and submit the action taken report to CPCB within 2 months. Further, it was observed that only 01 soil, SW & GW sample collected. Hence, it may be difficult to draw a conclusion whether the site is contaminated or not. Therefore, it is suggested that Punjab PCB may carry out adequate (5-6) number of soil samples in & around the site and submit the investigation report to CPCB within 2 months .
5.	Tajpur road MSW dump site, Ludhiana	CS	PPCB has inspected the MSW dumpsite and carried out soil and GW sampling from 2 locations. Analysis result reveals that: i. GW parameters are within the acceptable /permissible limits for all parameters (As per Indian Standard for Drinking Water). ii. Soil is contaminated with Copper, Nickel, & Zinc w.r.t., screening level of Industrial land use.	It was observed that only 02 soil & GW samples collected. Hence, it may be difficult to draw a conclusion whether the site is contaminated or not. Further, it is reported that soil is contaminated with HM. Therefore, it is suggested that Punjab PCB may carry out adequate (5-6) number

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S. No.	Name of the Site	CS/PCS	Action taken/initiated by Punjab PCB	Observations/ Suggestions by CPCB
				of soil samples in & around the site and submit the detailed investigation report to CPCB within 2 months.
6.	PSIEC Leather Complex, Jalandhar, Punjab	CS	PPCB has inspected the site and carried out soil, GW and surface Water sampling from 1 location. Analysis result reveals that: (i) GW parameters are within the acceptable/permissible limits as per Indian Standard for Drinking Water, except: TDS and Hardness. (ii) Soil samples reveal no contamination. However, it is alkaline in nature.	It was observed that only 01 soil & GW sample collected. Hence, it may be difficult to draw a conclusion whether the site is contaminated or not. Therefore, it is suggested that Punjab PCB may carry out adequate (5-6) number of soil samples in & around the site and submit the investigation report to CPCB within 2 months.
7.	Kala Sanghia Drain, Jalandhar, Punjab 144623	CS	PPCB has inspected the site and carried out soil, GW and surface Water sampling from 01 location. Analysis result reveals that: (i) parameters of GW samples are within the acceptable/permissible limits as per Indian Standard for Drinking Water, except: Hardness. (ii) Parameters for Surface water samples are within the limit of standard w.r.t, inland surface water discharge, except: TDS, and hardness; (iii) Soil samples are alkaline in nature at the bank of drain. Further, analysis result revealed that soil is contaminated with Copper, Chromium, Nickel, & Zinc w.r.t., screening level of Industrial land use.	PPCB may carry out sediment sampling at the said drain. As soil is contaminated with heavy metals, PPCB shall carry out detailed site investigation by taking adequate no. of samples (each matrices about 6-8 samples, in case of soil at different depth, may refer CPCB reference document) and submit the report to CPCB within 2 months.
8.	Nasrali Village, Mandi Gobindgarh- 147301	CS	PPCB has inspected the site and carried out soil sampling from 02 locations, GW and surface Water sampling from 01 location. Analysis result reveals that: (i) parameters of GW samples are within the acceptable/permissible limits as per Indian Standard for Drinking Water. (ii) Parameters for Surface water samples are within the limit of	It was observed that only limited soil & GW sample collected. Hence, it may be difficult to draw a conclusion whether the site is contaminated or not. Therefore, it is suggested that Punjab PCB may carry out adequate (5-6) number of soil samples in & around

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S. No.	Name of the Site	CS/ PCS	Action taken/initiated by Punjab PCB	Observations/ Suggestions by CPCB
			standard w.r.t, inland surface water discharge. (iii) Soil samples are alkaline in nature and no contamination is reported.	the site and submit the investigation report to CPCB within 2 months. <i>Based on the revised investigation report, decision may be taken to de-list.</i>
9.	Ajnali Village, Mandi Gobindgarh, Punjab.-147301	CS	PPCB has inspected the site and carried out soil sampling from 3 locations, GW from 01 location and surface Water from 2 locations. Analysis result reveals that: i. parameters of GW samples are within the acceptable/permissible limits as per Indian Standard for Drinking Water. ii. Parameters for Surface water samples are within the limit of standard w.r.t, inland surface water discharge. iii. Soil samples are alkaline in nature and no contamination is reported.	As no contamination is reported, site may be proposed to de-list.

Tamil Nadu

TNPCB has submitted vide its email/letter dated 26.12.2022 regarding status of **11 Probable/Contaminated sites** and the reports were examined. The status of on-going remediation works is given below:

S. No.	Name of the Site	CS/ PCS	Action taken/ initiated by TNPCB	Observations/ Suggestions by CPCB
1.	Kodaikanal, Tamil Nadu	CS	<ul style="list-style-type: none"> Till 31st July 2023, 7552 m² area out of the identified 17858 m² is remediated so far. The treated soil from washing and retorting is homogenized with natural soil, i.e., in total 9963 MT of soil is homogenized so far. Consolidated results of analysis for period of last six months is attached in Annexure-IA. 7th Scientific Expert Committee (SEC) Meeting to monitor the remediation process at the site Kodaikanal was held on 10.08.23 and 11.08.2023. During the meeting, the committee has made 11 recommendations compliance. for necessary 	<p>TNPCB my monitor the remediation works undertaken by Responsible party and submit progress report to CPCB from time to time.</p> <p>Further, M/s HUL had submitted the proposal regarding remediation of black slurry and its disposal. Same is under review.</p>

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S. No.	Name of the Site	CS/PCS	Action taken/ initiated by TNPCCB	Observations/ Suggestions by CPCB
			<ul style="list-style-type: none"> The Board vide letter dated: 01.09.2023 has instructed the unit to comply with the SEC recommendations. 	
2.	Tondairpet, Chennai, Tamil Nadu	CS	Remediation work is underway by M/s BPCL and health study report is awaited.	<p>Post-monsoon sampling of groundwater may be carried out jointly with CPCB (HO/RD, Chennai) TNPCCB and M/s BPCL to ascertain present level of contamination.</p> <p>Further, TNPCCB may monitor the remediation works undertaken by Responsible party and submit progress report to CPCB from time to time.</p>
3.	TCCL, Ranipet, Tamil Nadu	CS	<p>DPR is prepared under NCEF project formerly.</p> <p>TNPCCB awarded work order vide dated 28.11.2022 to consultant for the preparation of technical and tender documents to Implement the Interim remedial measures as per Hon'ble NGT (SZ) directions.</p>	<p>Since hazardous waste is still lying at the site and Remediation work is not yet initiated, TNPCCB may issue necessary directions within 02 months to responsible party to lift and disposed of waste from the site followed by treatment as per the DPR prepared by CPCB at the earliest.</p> <p>In case of failure to comply for lifting/disposal of hazardous wastes from the site, as per the Hon'ble NGT order dated 26.08.2019 in OA No. 804/2017, environmental compensation may have to be paid by TNPCCB at the rate of Rs. 10 lakh per site.</p> <p>Further, once remediation works initiated, TNPCCB may monitor the same and submit progress report to CPCB from time to time.</p>
4.	Noyyal river, Tirupur, Tamil Nadu	CS	<ul style="list-style-type: none"> Site inspection was carried out by TNPCCB. GW, SW and soil sampling carried out and analyzed for CoCs. Analysis result reveals about no contamination. 	<p>CPCB has examined the report and no contamination is reported w.r.t, CoCs.</p> <p>As no contamination is reported, site may be proposed to de-list.</p>
5.	Eachangadu, Cuddalore, Tamil Nadu	CS	<ul style="list-style-type: none"> Site inspection was carried out by TNPCCB. GW and soil sampling carried out and analyzed for CoCs. 	CPCB has examined the report and no contamination is reported w.r.t, CoCs.

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S. No.	Name of the Site	CS/PCS	Action taken/ initiated by TNPCB	Observations/ Suggestions by CPCB
			<ul style="list-style-type: none"> Analysis result of soil samples reveals no contamination w.r.t., screening level for agricultural land use. Analysis result reveals about no GW contamination. 	<p>However, CPCB-RD, Chennai has submitted that the site at Eachangadu, Cuddalore is nearby SIPCOT industrial area and during rainy season white coloured surface run-off along with smell of chemicals is observed at downstream of natural canal.</p> <p>Therefore, TNPCB should carry out soil (from different depths), SW, sediment and groundwater (may install monitoring well if no bore-well available at the site) sampling at the location during post monsoon. The samples will be analysed for general parameters and heavy metals as per CPCB reference document and submit the same within 2 months.</p>
6.	Ranipet, Tamil Nadu-632401	PCS	<p>TNPCB had awarded the assessment work vide letter dated 11.08.2022 to Consultant (i.e. M/s GLens Innovation Labs Pvt Ltd.), for Preliminary site assessment.</p> <p>The aforesaid work is underway.</p>	<p>TNPCB should submit Preliminary site assessment reports within a month.</p> <p>If concentration levels exceeded the screening levels/available standards, TNPCB shall carry out detailed site investigation and submit the report to CPCB at the earliest.</p>
7.	Vanitec Limited (inside the premises of CETP) Vallayambattu, Vadiumbadi, Vellore, Tamil Nadu	CS		
8.	Walajapet Lake Water Polluted Site, Vellore, Tamil Nadu-632513	PCS		
9.	Peranampattu Pond Site, Vellore Tamil Nadu - 632001	PCS		
10.	Perumgudi, Chennai-600035	PCS		
11.	Karunguri Village, Kancheepuram, Tamil Nadu-631501	PCS		
