

**Synopsis on “Status of Contaminated Sites in India” of Hon’ble NGT order dated 26.08.2019 in the matter O. A. No. 804 of 2017**  
(details may refer at **page 225** at **Chapter-8** of status report of CPCB)

Hon’ble NGT orders dated 26.08.2019 as reproduced below:

”..... iv. **126 sites** which have already been identified as contaminated may be cleared of the hazardous waste within six months so that remediation process may start. The remediation work may start at the **55 sites** for which DPRs have been completed within the timelines specified in the DPRs. For the **remaining 71 sites**, DPRs may be completed expeditiously but not later than one year and thereafter remediation may be done as per the timelines in the DPRs.

v. Failure to remove the waste from the **126 identified sites** will result in environmental compensation to be paid at the **rate of Rs. 10 lakhs per site from 01.04.2020 by the concerned SPCBs/PCCs to the CPCB. Same rate will apply in respect of such of the 195 sites** as are identified as contaminated **with effect from 01.01.2021.**

vi. With regard to **195 probable contaminated sites**, the **assessment may be completed within six months** and thereafter the waste may be removed within next six months from sites cleared by the CPCB to be contaminated.

vii. The clearance of site by way of disposal or transfer should be strictly as per the HOWM Rules, to be monitored by the CPCB. The cost of removal of waste may be first paid out of the environment funds/consent funds available with the State PCBs/PCCs and thereafter recovered from the persons concerned..... ”

**In compliance to aforesaid order of Hon’ble NGT, actions initiated by CPCB:**

(i)	CPCB communicated aforesaid order of Hon’ble NGT to <b>21 SPCBs/PCCs</b> for taking necessary action and submission of Action taken reports on ‘Assessment of Contaminated Sites’	letter dated 06.09.2019
(ii)	CPCB reminder along Guidance document on “Assessment and remediation of contaminated sites” issued by MoEF&CC was communicated to 21 SPCBs/PCC	03 letters and 06 e-mails
(iii)	To review the compliance to aforesaid directions of Hon’ble NGT, interactive meeting was organized with the officials of SPCBs/PCCs at CPCB Delhi	3rd - 4th February, 2020

- In response to CPCB letters and email communications, **19 out of 21 SPCBs/PCC** have submitted their information/Status Report on Action Taken/Initiated for “Assessment of contaminated sites” till 22.06.2020. However, no information received from **Chhattisgarh & Rajasthan SPCBs.**
- State wise Compliance status on Action taken/initiated by SPCBs/PCCs is given at **Section-C & D of Chapter 8** (pls refer **page 228** of status report of CPCB).

S. No.	Name of the States/UT	Total sites submitted before NGT in 2019	No. of active sites* till date	126 Contaminated Sites list submitted before Hon'ble NGT	
				55 sites (DPRs/ Remediation completed/on-going)	71 sites (DPR required)
1.	Andhra Pradesh (AP)	3	3*	1**	
2.	Assam (AS)	4	4		1
3.	Delhi (DL)	26	26		4
4.	Goa (GA)	2	2		1
5.	Gujarat (GJ)	23	23*	1***	7
6.	Haryana (HR)	17	17		3
7.	Himachal Pradesh (HP)	6	6		1
8.	Jharkhand (JH)	14	14		2
9.	Karnataka (KA)	25	25		5
10.	Kerala (KL)	13	10	4 (1## & 1###)	2
11.	Madhya Pradesh (MP)	20	20*	4 (1###)	2
12.	Maharashtra (MH)	5	6*	1***	1
13.	Odisha (OD)	31	32*	4(3##)	18
14.	Punjab (PB)	9	9		6
15.	Tamil Nadu (TN)	14	11	3 (2***)	3
16.	Telangana (TS)	9	9	1	1
17.	Uttar Pradesh (UP)	40	42*	8 (2*** & 2##)	10
18.	Uttarakhand (UK)	9	9		1
19.	West Bengal (WB)	35	7	27 (1**, 1## & 25###)	
<b>20.</b>	<b>Chhattisgarh (CH)</b>	<b>5</b>	<b>5</b>		<b>2</b>
<b>21.</b>	<b>Rajasthan (RJ)</b>	<b>11</b>	<b>11</b>	<b>1</b>	<b>1</b>
	<b>Total</b>	<b>321</b>	<b>291</b>	<b>55</b>	<b>71</b>

**Note:**

- (a) Contaminated sites – 126 (**55+71**) sites
- (b) Probable sites – 195 sites
- (c) **New sites\*** - 7 sites (AP-1, GJ-1, MH-1, MP-1, OD-1, UP-2)
- (d) **De-listed** – 37 sites (AP-1, KL-3, GJ-1, MP-1, TN-3, WB-28)

Till June, 2020  
Total sites: **291 sites (PCS-175 and CS-116)**

**A. Summary of 55 sites:**

** Remediation completed	<b>2 sites:</b> AP-1# & WB-1#
*** Remediation on-going	<b>6 sites:</b> GJ-1, MH-1, TN-2 & UP-2
## Remediation about to initiate	<b>7 sites:</b> KL-1, OD-3, UP-2 & WB-1
### Remediation not required	<b>27 sites:</b> KL-1# , MP-1# & WB-25#
Assessment completed	<b>1 site:</b> RJ-1
DPR about to complete	<b>3 sites:</b> MP-3
Remediation work couldn't initiated due to court matter	<b>1 site:</b> TS-1
DPR prepared, remediation not yet initiated	<b>8 sites:</b> KL-2, OD-1, TN-1 & UP-4
<b>(# de-listed site)</b>	

Further, HW still lying at the sites (as per detailed investigation report/DPR prepared)

**8 sites:** KL-1, MP-1, OD-4, TN-1 & UP-1

**B. Summary of 71 sites:**

Preliminary Assessment done <b>(#de-listed site)</b>	<b>41 sites:</b> AS-1, GJ-7, HR-3, HP-1, KL-2 (1#), MP-2, OD-17, PB-3, TN-2 & UP-3
Preliminary Assessment on-going	<b>1 site:</b> JH-1
Only site inspection carried out, however sampling not done	<b>15 sites:</b> KA-5, MH-1, OD-1, TN-1 & UP-7
Remedial action initiated	<b>1 site:</b> JH-1
Remedial action proposed	<b>1 site:</b> TS-1
Information not received from SPCBs/PCC	<b>12 sites:</b> CH-2, DL-4, GA-1, PB-3 RJ-1 & UK-1

Further as per preliminary assessment report, HW lifted/removed

**2 sites:** GJ-01 & UP-1

HW not observed

**11 sites:** HP-1, KA-1, TN-2 & UP-3

**C. Summary of 195 Probable sites:**

Preliminary Assessment done	<b>95 sites:</b> AP-1, AS-3, DL-9, GA-1, GJ-15, HR-14, HP-5, JH-3, KA-1, KL-4(1#), MP-14, OD-6, PB-1, TN-5 (3#), UP-8 & UK-5
Preliminary Assessment on-going	<b>8 sites:</b> JH-8
Only site inspection carried out, however sampling not done	<b>66 sites:</b> AP-1, DL-13, JH-1, KA-18, KL-3, TN-3, TS-7, UP-12 & WB-8 (2#)
Preliminary Assessment about to start	<b>3 sites:</b> MH-3
Remediation on-going	<b>1 site:</b> KA-1
Sampling not carried out as GPS location was not matched with the site	<b>4 sites:</b> OD-3 & UK-1
Information not received from SPCBs/PCC	<b>18 sites:</b> CH-3, PB-2, RJ-9, UP-2 & UK-2

Further as per preliminary assessment report, HW lifted/removed from the sites  
**(#de-listed site)**

**4 sites:** DL-1, GA-1, **GJ-1#** & UP-1

HW not observed

**33 sites:** HR-8, HP-5, TN-1, TS-5 & UP-15

**D. Status of 07 new sites (AP-1, GJ-1, MP-1, MH-1, OD-1 & UP-2):**

Preliminary Assessment done by CPCB	<b>1 site:</b> UP-1
Assessment on-going	<b>3 sites:</b> AP-1, MP-1 & OD-1
Only site inspection carried out, & HW lifted/removed from the sites; however, sampling not done	<b>2 sites:</b> MH-1 & UP-1
No information from SPCB	<b>1 site:</b> GJ-1

## Observations

Action taken reports submitted by the SPCBs/PCC are examined by CPCB and following observations are made as below:

- i. SPCBs/PCC have carried out only few sampling of limited matrices for most of the sites. Therefore, conclusion may not be drawn whether the site is contaminated or not, even if the concentrations levels reported within the standards/levels.
- ii. SPCBs/PCC (namely; DL, KA, TS, UP & WB) have carried out only site inspection. However, no samples were carried out.
- iii. SPCBs/PCC have not submitted proper inspection reports along with analysis results and site visit photographs for most of the sites.
- iv. Few sites were found at/nearby Temples, residential colonies and where construction of flyover activities were done, etc.
- v. None of the states/UT except Odisha has constituted Empowered Monitoring Committee (EMP) for monitoring of remediation plans.

## Recommendations

S. No.	Activity	Target
i.	In case of Probable contaminated sites, SPCBs/PCC shall carry out Preliminary site investigation as per "Reference document on Identification, Inspection and Assessment of Contaminated Sites" prepared by CPCB.  Site investigation report as per prescribed format may be submitted to CPCB for further assessment.	45 days
ii.	In case of contaminated sites, SPCBs/PCC shall carry out detailed site investigation, as per "Reference document on Identification, Inspection and Assessment of Contaminated Sites" prepared by CPCB and "Guidance document on Assessment and Remediation of contaminated sites in India" issued by MoEF&CC.  Detailed investigation report may be submitted to CPCB.	3 months
	If Remediation needed, SPCBs/PCC may take necessary and submit remediation plan to CPCB for further course of action.	Within 45 days (after completion of investigation study)
iii.	SPCBs/PCCs to ensure that the hazardous waste accumulated/lying at all such identified sites/any new sites shall be disposed off either through TSDF or on-site SLF on priority to stop further contamination.  Wherein, HW is lifted/removed from the site, SPCB/PCC shall carryout detailed investigation followed by remediation, if needed ( <b>as above ii</b> )	3 months
iv.	The Committee for effective implementation of remediation plan at state level, Empowered Monitoring Committee chaired by Secretary, Environment Dept. having	1 month

S. No.	Activity	Target
	representatives from Industries Dept., SPCB/ PCC, CGW/SGWA, relevant Experts, etc. shall be constituted.	
v.	Financial supports for execution of project on remediation of the contaminated sites may be arranged to SPCBs/PCC so that the detailed investigation studies followed by remediation works can be undertaken on priority  <b>- By State/Central Govts.</b>	4 months

**Note:** Preliminary sites investigation/ detailed investigation followed by Remediation may be carried out – By SPCBs/PCC by engaging reputed Remediation Consultants.

### Way Forward:

- i) Need of National Policy on Management of contaminated sites.
- ii) Need to update Inventory of contaminated sites.
- iii) Immediate remedial actions for priority contaminated sites.
- iv) Remediation of orphan sites through funding from State/Central Govts.

### Compliance status on Recommendations of the Monitoring Committee related to Contaminated sites are as below:

S. No.	Recommendations of the Committee	Compliance status
<b>1.</b>	<b>Disposal of hazardous wastes accumulated at identified sites:</b>	
	(i) CPCB/SPCBs/PCCs to ensure that the hazardous waste accumulated at all such identified sites shall be disposed of either through Treatment, Storage and Disposal Facilities (TSDFs) or onsite secured landfilling (SLF) on priority to stop further contamination  <b>(CPCB/ SPCBs/PCCs: 06 months)</b>	Detailed information is given at <b>Section-C &amp; D of Chapter 8</b> (page <b>228 to 308</b> ) for kind reference.
<b>2.</b>	<b>Guidelines for Identification and Assessment of Contaminated Sites:</b>	
	(i) For a consistent and uniform application and approach across the country, guidelines for identification and assessment of contaminated sites shall be published.  <b>(CPCB: 03 months)</b>	Guidance document on Assessment and remediation of Contaminated Sites in India issued by MoEF&CC, communicated to 21 SPCBs/PCC. Based on this guidance document, a “Reference document on identification, inspection and assessment of contaminated sites in India” has been prepared by CPCB is given at <b>Annexure-XIII (page 421)</b> for kind reference.
<b>3.</b>	<b>Assessment and remediation of Contaminated sites:</b>	
	(i) Capacity building program for officials of SPCBs/PCCs on the entire process of remediation,  <b>(CPCB: 06 months)</b>	(i) MoEF&CC sponsored “Five – Day International Seminar/workshop on Contaminated Sites; and Demonstration Sessions / Workshop on Environmental Subsurface Investigations” was organized by IIT Delhi during 17-21

	<p>(ii) Assessment of about 195 probable contaminated sites and any new additional sites recommended by CPCB/SPCBs/PCCs shall be completed within period of 1 year after publication of such guidance document by CPCB.</p> <p style="text-align: center;"><b>(CPCB/SPCBs/PCCs: 1 year)</b></p> <p>(iii) For effective implementation of the remediation plan at State level, Empowered Monitoring Committee chaired by Principal Secretary, Department of Environment having representatives from department of Industries, SPCB/PCC, Groundwater development agency, etc. shall be constituted.</p> <p style="text-align: center;"><b>(State Govt: 04 months)</b></p>	<p>February, 2020 for the officials of MoEF&amp;CC/CPCB/SPCBs, Academic, etc. is given at <b>Annexure-XIV (page 458)</b> for kind reference.</p> <p>CPCB has proposed a 3 separate training programs on identification and assessment of contaminated sites for the officials of SPCBs/PCCs for the financial year 2020-21.</p> <p>(ii) Detailed progress on assessment of probable contaminated sites under taken by SPCBs/PCCs is given at <b>Section-C of Chapter 8</b> for kind reference.</p> <p>(iii) <b>Odisha SPCB</b> has informed vide its letter dated 19.05.2020 that at State level, Empowered Monitoring Committee (EMC) has been constituted.</p>
<b>4.</b>	<b>Financial Arrangements for remediation of contaminated sites:</b>	
	<p>(i) Financial arrangements between Central-State Governments for the proposed remediation projects shall be resolved immediately so that the remediation works as proposed in DPRs can be undertaken on priority. These DPRs (2017-18 and 2018-19) may need to be revisited if no action is taken in a reasonable time for execution of remediation works.</p> <p>(ii) Govt. should take up on priority not only remediation projects at the sites where DPRs have been prepared but also the assessment of about 195 sites, besides any new addition of potentially contaminated site, if any.</p> <p style="text-align: center;"><b>(MoEF&amp;CC/State Govt.: 06 months)</b></p>	<p>It is humbly submitted that MoEF&amp;CC has sanctioned central share under National Clean Energy Fund (NCEF) scheme of Rs. 15.5 crore for preparation of DPRs for 08 areas contaminated (containing 21 sites) for remediation.</p> <p>Further, it is humbly submitted that there is no funding for execution of remediation works, since NCEF scheme has been discontinued by Govt. of India. The DPRs along with templates of bidding have been forwarded to concerned State Govts and SPCBs with request to implement remediation works.</p>
<b>5.</b>	<b>Networking of Academic and Research Institutes:</b>	
	<p>(i) MoEF&amp;CC/CPCB/SPCBs/PCCs shall undertake action research and also promote academic courses on this subject in association with academic and research institutions.</p> <p style="text-align: center;"><b>(MoEF&amp;CC/CPCB/SPCBs/PCCs: 06 months)</b></p>	<p>(i) A project sponsored by MoEF&amp;CC at IIT Delhi, a National Network of Experts and Resources for Subsurface Investigations and Remediation of Contaminated Sites (NERCS) has been formed. In this regard, Web page of NERCS is given at <b>Annexure-XV (page 507)</b> for kind reference.</p>