Minutes of the meeting of Project Steering Committee of the GEF Funded Project entitled "Environmentally Sound Management and Final Disposal of Polychlorinated Biphenyls in India" held on 16.03.2021 at 3:00 pm

The meeting of the Protect Steering Committee (PSC) of the GEF funded project was held on 16.03.2021 at 3:00 pm through video conferencing. The meeting was chaired by Shri Naresh Pal Gangwar, Joint Secretary, MoEF&CC. The list of participants is annexed.

2. At the outset, the Chair welcomed all the participants to the meeting and informed that the PCB project was selected as the one of the priorities post the development of the National Implementation Plan. He informed that the project was extended until December 2021 for completion of the remaining activities. The Chair requested all participants that efforts should be made to complete the project activities within the given timeline. UNIDO was then requested to make a brief presentation on overall progress of the PCB project.

3. Dr. Rene Van Berkel, Regional Director & UNIDO representative began with his presentation and explained about the delay to complete the project activities due to COVID-19. Further, he informed that the overall objective of the project is to eliminate 7700 tons of PCBs in environmentally sound manner. An expenditure of US$12.87 million was reported till 15.03.2021 out of the total GEF cost of US$ 14.1 million.The executing partners of the project are Steel Authority of India Limited-Bhilai Steel Plant (SAIL-BSP) (for static facilities) and Central Power Research Institute (CPRI) (for mobile facility). He also added that India, being a party to the Stockholm Convention, is required to end the use of PCBs and complete the environmentally sound disposal of PCBs in the country by December, 31 2025 and by December 31, 2028, respectively. He also stated that India has a confirmed inventory of 9,838 ton of PCBs.

4. He, further, explained that there are four components under the project viz. (i) Policy and regulatory framework for environmentally sound management and final disposal of PCBs, PCB containing equipment and PCB containing mineral oil and wastes; (ii)Improve institutional capacity at all levels of PCBs, PCB-containing equipment and waste disposal management;(iii) Increase capacity building of PCB owners to properly manage PCBs, PCB-containing equipment and wastes and (iv) Establish technical capacity to treat and dispose of PCBs, PCB-containing equipment and wastes. Further, he added that project covers setting up of four facilities for dechlorination/destruction of PCBs out of which three are proposed at SAIL-BSP and one at CPRI. The facilities include (i) Plasma technology (BSP); (ii) Indirect Thermal desorption (IID) unit (BSP); (iii) De-chlorination technology (BSP) and (iv) Mobile De-chlorination treatment facility (CPRI). The destruction capacity of plascon, ITD and de-chlorination facilities are 330 MT/yr, 330 MT/yr and 907 MT/yr, respectively. The

capacity of mobile chlorination facility set up by CPRI is 600 MT/year. CPRI has reportedly de-chlorinated 231 MT of PCB contaminated oils. Dr. Berkel also highlighted the following activities are yet to be completed under the project:

i. Building, environment and operational permits for static facilities at BSP
ii. Completion of installation and commissioning of static facilities at BSP
iii. Early release of PCBs by owners for treatment and disposal
iv. Plants hand over and future treatment obligations

He also presented the year-wise destruction plan of PCBs and timelines/work plan.

5. Dr. P. Thomas, Addl. Director, CPRI gave a presentation on Management Service for the Treatment of Transformer Mineral Oil containing PCB's using Mobile De-chlorination System. CPRI is associated with MoEF&CC in various environmental projects since 2009. CPRI further informed that approx 9,838 tons of PCBs was inventorised across the country. He informed that mobile de-chlorination unit and Sodium Dispersion Preparation (SDP) system/ facility was installed and commissioned at CPRI. Afterwards, he explained the process of preparing sodium dispersion solution and working of mobile facility. CPRI has taken up the dechorlination activity at the at the following site:

Sl.No	**Details**	**Duration**	**PCB oil dechlorinated, MT**
1	Dechlorination work done at CPRI, Bangalore.	04/04/2018 to 25/07/2018	57.9
2	M/s TNEB, Mettupalayam, Tamil Nadu	17/12/2018 to 22/01/2019	23.75
3	M/s. Visvesvaraya Iron & Steel Plant, Bhadravathi, Karnataka.	27/02/2019 to 22/03/2019	21.75
4	M/s. Kerala State Electricity Board, Kakkayam, Kerala. & M/s Good year India Ltd, Haryana.	12.11.2019 to 04.12.2019	5.6
5	M/s Harduaganj Thermal Power Station, Kasimpur, Aligarh, Uttar Pradesh.	23.01.2020 to 24.10.2020	122
		Total	**231 MT**

So far, 231 MT of PCB oil has been dechlorinated using mobile PCB dechlorination unit. CPRI also presented the following list of the power companies/utilities along with the quantity of PCB oil at their premises:

Sl.No	Name of the company	PCB to be de-chlorinated (MT)
1	Neyveli Lignite Corporation (NLC). T.N	500
2	Tarapur Atomic Power Station (TAPS), Tarapur, Maharastra.	130
3	Chandrapur Thermal Power Station, Maharastra.-	80
4	Transmission Corporation of Andhra Pradesh Limited, Vijayawada.A.P	39
5	Panki Thermal Power Station, UP	55
6	Gandhi Nagar Thermal Power Station, Gujarat	60
7	Rajasthan Rajya Vidyut Prasaran Nigam Ltd. Rajasthan	100
	Total	**964**

He also informed that power supply, storage tanks, nitrogen cylinders, house accommodation and storage rooms are required to be provided by power companies for taking up the dechlroination activity at the site. It is noted that the cost of PCB treatment using mobile facility is charged Rs 20/litre by CPRI. CPRI has informed that after completing the 750 MT, the cost towards the treatment would be higher. CPRI also highlighted that TAPS, CTPS and Gandhinagar TPS had shown interest and order for PCB dechlroination is awaited from them.

6. Dr Vijay Yeul, Tarapur TPS referred that clause (d) of PCB notification i.e.(d) A dielectric fluid or, mineral oil used in the power equipments (transformer, capacitor, etc.) shall continue to be used till 31st December, 2025 if, it contains PCBs less than 0.005 per cent by weight (i.e. Polychlorinated Biphenyls < 50 mg/kg) and asked whether the dielectric fluid having PCB concentration less than 7 ppm can be used after using dilution method. Shri B. Vinod Babu, Addl. Director, CPCB replied that as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, the used oil having PCB concentration less than 2 ppm can only be recycled. Dielectric fluids with concentrations >50 ppm of PCB may not be allowed for dilution and reuse. However, dielectric fluids can be treated through mobile de-chlorination facility of CPRI.

7. Shri Babu, further, sought clarification on the Standard Operating Procedures (SOPs) for treatment of PCB contaminated surfaces of transformers at site and the monitoring system for disposal of residue as per HWM Rules, 2016. Dr Carmela Centeno, Project Manager, UNIDO informed that cleaning of metallic contaminated surface depends on the concentration of PCBs. She further stated that with proper cleaning of contaminated surfaces using clean mineral oil, decontamination of surface could be achieved.

8. Representative of NLC requested CPRI for taking up de-chlorination of PCBs at their plant to which CPRI replied that they had already written to them and were awaiting their formal communication. Representative of NLC was advised to pitch in with CPRI for engaging them treatment of PCB stock.

9. Shri K. Praveen, General Manager (EMD), SAIL-BSP made a detailed presentation on Setting-up of Static Facility for Environmentally Sound Management of PCB. He highlighted the objective of the project and informed that project comprises of two parts viz. Part A: Destruction of 1700 MT of pure PCB oil and PCB contaminated wastes (paper and wood) and Part B: Decontamination/Treatment of 3,400 MT of PCB contaminated equipment (transformers, transformer carcasses) and PCB contaminated mineral oil.

As per the scope, UNIDO is required to provide equipment/technology for destruction/decontamination of PCBs oil/waste. However, setting up the infrastructure and its maintenance and procurement and replacement of all the PCB filled transformers in BSP is the responsibility of BSP. He informed that in BSP three facilities viz. plasma (for pure PCBs), indirect thermal desorption (for PCB containing porous and solid material) and dechlorination (for PCB contaminated oil and equipment containing PCBs) are in the process of execution, commissioning and installation. He further elaborated the overall status of building and infrastructure for setting up of static facility. The erection and installation of most of the equipments at BSP have been completed. The balance works of construction of water tank, temporary landfill facility, installation of firefighting systems & fire detection alarm system, pumps & motors, CCTV & conferencing systems, air conditioning system, lighting/illumination system require 03 months for completion from the date grant of building permission.

He also stated that BSP has filed an application for seeking building permission from Risali Nagar Nigam. The building permission is expected by 15/04/2021. All pending works under BSP's scope will be completed within three months from obtaining building permission. As per the overall status presented by BSP, trial run of static facility will be completed by September, 2021.

10. Shri Anirban Dasgupta, Director (I/C), BSP-SAIL, informed that they will take up the issue related to building permission with the Government of Chhattisgarh. He also requested that the Ministry may write to the Chhattisgarh Environment Conservation Board for issuing CTO and CTE for static facilities.

11. Shri Satyendra Kumar, Director, HSM Division while summarising the discussions stated that the MoEF&CC is the executing agency of the project. The project activities need to be reviewed on a weekly basis by UNIDO, SAIL-BSP and CPRI so that corrective measures could be taken in time to avoid any further delay. The

coordination amongst the stakeholders is also required to expedite the project activities. He assured all support of the Ministry to the project.

12. After detailed deliberations, the following was decided:

i. UNIDO, CPRI and BSP shall furnish financial progress of the project along with statement of expenditure as per the contributions envisaged by UNIDO ($29 million), GEF ($14.1 million), & BSP ($32 million).
ii. SAIL-BSP shall submit the application for grant of Consent to Operate (CTO) for Part-A Facilities (Plasma Incineration & ITD) to Chhattisgarh Environment Conservation Board (CECB) within two weeks. UNIDO representative at the BSP site may pursue for timely submission of the application. Status in this regard may be submitted to MoEF&CC.
iii. SAIL-BSP shall follow-up with CECB for granting CTO for Part-B facility (Dechlorination unit) and provide the details of application, pendency status to the MoEF&CC for pursuing with CECB for expediting the grant of CTO.
iv. SAIL-BSP may provide the status of building permission to be obtained from Risali Nagar Nigam.
v. SAIL-BSP shall ensure setting up of balance infrastructure (water tank, temporary landfill facility and other utilities) by June, 2021 and monthly progress report is to be submitted.
vi. UNIDO to ensure erection and installation of equipment of static facilities at BSP by Ramky Enviro Pvt. Ltd. by June, 2021 so that SAIL-BSP can ensure commissioning of these facilities and its full operations by September, 2021. Progress in this regard may be updated.
vii. UNIDO/CPRI shall provide Standard Operating Procedures (SOPs) for treatment of PCB contaminated surfaces of transformers, and low concentrated PCB containing oils. If these SOPs are not in place, SOPs may be developed and made available to all stakeholders.
viii. CPRI shall develop guidelines for treatment of PCB containing transformer oils regarding facilities to be provided by the power utilities at the site, pricing of treatment cost per litre including fixed and variable charges. The guidelines shall also specify increased cost of treatment after achieving the target of 750 MT envisaged under the project. UNIDO may provide guidance in this regard.
ix. NLC and CPRI shall coordinate for treating 500 MT of PCB containing oil lying at NLC premises at the earliest. Both the organisations shall keep CEA and MoEF&CC informed of the communications to expedite the process of treatment within a month.
x. To achieve objectives of updating the inventory of PCBs, prohibition of its use by December, 2025 and environmentally sound disposal by December, 2028 in line with the Regulation of Polychlorinated Biphenyls Order, 2016, CEA may write to all power utilities for disclosing PCB details in Form-A of the said regulations. Further, MoEF&CC may take-up with concerned authorities/departments for

stipulating a condition for such disclosure in the Environmental Clearance, Forest Clearance and Consent to Operate.

xi. Participants of Thermal Power Plants/State Electricity Boards/Utilities are encouraged to declare the inventories of PCBs and approach CPRI for initiating the treatment of PCBs lying at their respective sites through mobile facility. Power utilities may inform CEA and MoEF&CC in case of any difficulties faced by them.

xii. UNIDO to coordinate with stakeholders for smooth progress of the project.

xiii. Project activities may be monitored/reviewed on weekly basis by MoEF&CC and UNIDO.

The meeting ended with vote of thanks to the Chair.

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Annexure I

List of participants

MoEF&CC

1. Shri Naresh Pal Gangwar, Joint Secretary
2. Shri Satyendra Kumar, Director
3. Shri N. Subrahmanyam, Scientist D

UNIDO

1. Dr. Rene Van Berkel, Regional Director & UNIDO Representative
2. Ms. Carmela Centeno, Project Manager
3. Dr Y.P. Ramdev, National Technical Advisor
4. Dr. S. P. Dhua, Regional Coordinator
5. Shri. R. K. Agarwal, National Consultant (Static)
6. Shri C. J. Naidu, National Consultant (Mobile unit)
7. Ms.Shivani Mudgal, Assistant Project coordinator
8. Ms.Preeti Dubey, Project Assistant

CPCB

9. Shri B. Vinod Babu, Scientist E
10. Ms. Deepti Kapil, Sc – D

Ministry of steel/SAIL-BSP

11. Shri Parmjeet Singh, Additional Industrial Adviser, Ministry of Steel
12. Shri Anirban Dasgupta, Director In-Charge, BSP-SAIL
13. Shri R.K. Panigrahi, CGM (Projects-Commercial), BSP
14. Shri S.K. Jain, GM (Projects), BSP
15. Shri Staya Prakash, CGM (EMD), BSP-SAIL
16. Mrs. Uma Katoch, GM (EMD), BSP
17. Shri K.Praveen, GM (EMD),BSP

CPRI

18. Dr. Thomas P, Additional Director

CEA/State Electricity Boards/Others

19. Ms. Seema Saxena, Chief Engineer, Central Electricity Authority (CEA)

20. Shri Bhanwar Singh Meena, CEA
21. Shri S K Ray Mohapatra, Chief Engineer, CEA
22. Shri Ajay Kumar Sharma, Sr. Chemist, RRVUNL
23. Shri H.T. Bathwar, Chief Engineer, GSECL
24. Dr. SmitaWagh, MAHAGENCO
25. Dr. Vijay Yeul, MAHAGENCO
26. Shri S. Gauthaman, CGM, NLC
27. Sh. Sunil Dhaiya, Addl. GM, NTPC
28. Ms. Priya Ranjan
29. Shri Santosh Kumar Takhele
30. Ms. Shivani Sharma
31. Shri U K Arora
32. Shri N K Jha
33. GPM Director
34. CEC-NLC India Limited
35. CPM Pragati
36. HPC EME
37. Planning Team, NLCIL