

F. No. 11/3/2018- HSMD
Government of India
Ministry of Environment, Forest & Climate Change
(HSM Division)

Indira Paryavaran Bhawan
Jor Bag Road, Aliganj
New Delhi – 110003

Dated: 9th March, 2023

OFFICE MEMORANDUM

Sub.: Minutes of the second meeting of 'Fly Ash Management and Utilization Mission' held on 31.01.2023- reg.


The undersigned is directed to enclose herewith the minutes of the second meeting of "Fly Ash Management and Utilization Mission" held under the Chairpersonship of Secretary (EF&CC) on 31.01.2023 at 12:00 hrs at Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, New Delhi.

2. It is requested to furnish the action taken report to Central Pollution Control Board.

This issues with the approval of the Competent Authority.

Encl.: As above

Yours sincerely,


(Dr. Satyendra Kumar)
Director

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To:

1. Secretary, Ministry of Power, New Delhi
2. Secretary, Ministry of Coal, New Delhi
3. Chief Secretary, State of U.P.
4. Chief Secretary, State of M.P.
5. Chairman, Central Pollution Control Board, New Delhi
6. Additional Chief Secretary /Principal Secretary, Environment Department, Government of Uttar Pradesh
7. Additional Chief Secretary /Principal Secretary, Environment Department, Government of Madhya Pradesh

8. Additional Chief Secretary /Principal Secretary, Department of Power, Government of Uttar Pradesh
9. Additional Chief Secretary/Principal Secretary, Department of Power, Government of Madhya Pradesh
10. Additional Chief Secretary /Principal Secretary, Department of Industries, Government of Uttar Pradesh
11. Additional Chief Secretary /Principal Secretary, Department of Industries, Government of Madhya Pradesh
12. Chairman, UPPCB, Uttar Pradesh
13. Chairman, MPPCB, Madhya Pradesh
14. District Magistrate, Sonbhadra, U.P. (for stone crushers and all private mines)
15. District Magistrate, Singrauli, M.P. (for stone crushers and all private mines)
16. CMD, NCL
17. CMD, M/s NTPC Limited
18. CMD, M/s Anpara Thermal Power Plant (Power Plant)
19. CMD M/s Anpara 'C' Lanco Anpara Power Pvt. Ltd.
20. CMD, M/s Hindalco Industries Ltd.
21. CMD, M/s Renusagar Thermal Power Plant
22. CMD, M/s UPRVUNL
23. CMD, M/s Grasim Industries Limited, Renukoot, Sonbhadra
24. CMD, M/s Birla Carbon India Pvt. Ltd., Renukoot, Sonbhadra
25. CMD, M/s M.P. Power Generating Co. Ltd., Madhya Pradesh

Copy to:

1. PPS to Secretary (EF&CC)
2. PPS to AS (NPG)
3. Guard File

**Minutes of the meeting of Fly Ash Management and Utilization Mission
held on 31.01.2023 at 12:00 hrs**

The second meeting on 'Ash Management and Utilization Mission' was convened on 31st January, 2023 at 12:00 hrs for the issues related with industrial pollution in Singrauli and Sonbhadra region of M.P. and U.P. respectively. The list of participants is annexed at **Annexure I**.

(1) During the meeting, **following discussions were held:**

1. The first meeting of the Mission was held on 24th November, 2022 to address the pollution related issues in Singrauli, M.P. and Sonbhadra, M.P. During the meeting, several directions were given by the Mission including timely submission and implementation of the action plan by concerned stakeholders.
2. Based on the recommendations of the Mission in the last meeting, a Secretariat has been established at CPCB for coordination, monitoring, supervision and implementation of activities pertaining to decisions made by the Mission from time to time. CPCB presented the status of activities undertaken as below:
 - i. A web page - "Fly Ash Management and Utilization" – to place relevant information in public domain was created on 13.12.2022.
 - ii. Action plans submitted by power plants, coal mines and industries in Singrauli and Sonbhadra Action Plan have been shared with Oversight Committees members for MP and UP for review and scrutiny.
 - iii. Action plans of power plants and coal mines in Singrauli and Sonbhadra and the latest report of the Oversight Committees for MP and UP (District Magistrate, concerned officers of CPCB RD and State Pollution Control Board) have been scrutinized and common action points were formulated and shared with power plants and coal mines. Updated status of compliance of power plants and coal mines on common action points have been obtained. The same has been shared with State Pollution Control Board, respective Oversight Committees for quarterly verification and furnishing the status to Mission Secretariat.

- iv. The updated status of compliance of action plans for power plants and coal mines and industries have been obtained.
 - v. Action Plans for stone crushers have been submitted by M.P. State Government.
 - vi. Action plans are yet to be received from individual stone crushers from State Government of U.P in respect of Sonbhadra district.
 - vii. Draft guidelines for ash ponds/dykes have been prepared by CEA in consultation with CPCB. In view of the recent amendment notification of Ash Utilisation Notification, 2021, the guidelines are under modification to incorporate the provisions of latest amendments on use of reclaimed ash ponds for setting up of solar and wind energy plants.
 - viii. Oversight Committees for U.P. and M.P. comprising representatives of CPCB, SPCB and DM of concerned States, have submitted the first quarterly report on compliance verification.
 - ix. An account 'Voluntary Contribution Fund for Environmental Restoration & Relief' has been opened jointly by Government of M.P. and MPPCB. The account is yet to be opened by Government of U.P.
 - x. Report w.r.t. public health and risk impact assessment is submitted by Government of M.P. However, Govt. of UP is yet to submit the report in this regard.
3. It was observed that no participation from UP Govt was there.
 4. Several power plants/industries raised concerns regarding disposal of fly ash particularly in respect to the non-availability of mines for backfilling or mixing of ash with external overburden dumps.
 5. M/o Coal has so far identified 32 abandoned coal mines along with availability of volumes for backfilling ash by Thermal Power Plants. Nearly half of these mines have been allocated to TPPs for initiating backfilling of ash.
 6. It was highlighted that a Committee under the chairmanship of Chairman, CPCB with representatives from M/o Coal, M/o Mines, M/o Power, DGMS and IBM has been constituted under Ash Utilisation Notification, 2021 for

identification of mines for backfilling of mine voids with ash/ mixing of ash with overburden dump including examination of safety, feasibility (not economic feasibility) and aspects of environmental contamination. The committee shall update the list of such mines once in quarter.

7. It was informed that Reliance Sasan Thermal Power Plant with their captive coal mine has completed the study carried out by CIMFR which provided favourable recommendations for mixing of ash with overburden in operational mine. Trials for mixing of overburden and fly ash were completed and DGMS permission was also granted. The activity of mixing of ash with the overburden dump will start soon in Sasan captive coal mine.
8. NCL informed that IIT BHU conducted a study for one of its operational mine and the study found that it is not safe for backfilling with ash. However, Sasan case study was presented by MP Pollution Control Board to NCL and concerned District Magistrate to take up similar studies for backfilling of ash in mine voids.
9. Hindalco Industries informed that they require an abandoned or working mine for disposal of red mud and boiler ash. Studies found that red mud has alkaline in nature and is suitable for backfilling in acidic mines.
10. Gorbi abandoned mine of M/s NCL was allotted to NTPC and UPRVUNL (Anpara TPP) for backfilling of ash in mine voids. NTPC has started backfilling of ash in Gorbi mines whereas, UPRVUNL is yet to start such activity. So far, 0.3 million m³ of ash has been disposed in Gorbi mine.
11. MPPCB has raised concerns of pollution generated from transportation of fly ash from Anpara TPP (UPRVUNL) to Gorbi mine for backfilling of mine voids.
12. The ash utilization percentages of various thermal power plants for FY 2021-22 are presented as below:
 - i. Nigrie, JP Associates- 89.6%
 - ii. Rihand, NTPC- 59.3%
 - iii. Singrauli, NTPC- 57.5%
 - iv. Vindhyachal, NTPC- 53%
 - v. Sasan, RPL- 52.3%

- vi. Mahan, Essar Power- 25.5%
- vii. Anpara C, Lanco- 12.8%
- viii. Obra B, UPVUNL-5.5%
- ix. Anpara A, B & D, UPVUNL-2.6%

13. Ash Utilisation Notification, 2021 mandates all Thermal Power Plants achieve 100% utilization of current ash within 3-5 year compliance cycle as applicable based on the utilisation levels in the FY 2021-22.
14. It was also mentioned that major pollution in Singrauli region of M.P. is predominantly caused by the dust generated due to coal transportation from mines to TPPs, loading and unloading activities of coal near railway sidings.
15. It was mentioned that skill training was provided to SHGs for promoting small scale clay brick manufacturers to switch over to ash based brick units in Madhya Pradesh.
16. It was mentioned that Ash Utilisation Notification, 2021 mandates all building construction agencies within 300 km radius of TPPs to use ash based products/bricks which requires to be implemented by State Pollution Control Board and District Magistrate.

(2) The **following decisions were made** during the meeting:

1. Government of U.P. to submit Action Plans regarding stone crushers in Sonbhadra District and the implementation report on the compliance of the conditions of CTOs as well as ECs in respect of all the industries.

(Action: Env. Dept, Government of U.P.)

2. Government of U.P. to create a separate account to receive voluntary contributions and funds for environment restoration and relief. State Government to take measures for restoration of environment and provide relief to victims of damage in a manner as may be found appropriate from these funds.

(Action: Env Dept., Government of U.P.)

3. Concerned State Governments to arrange for conducting health and risk impact assessment studies of operations of TPPs and ash generating industries, and share the report with CPCB.

(Action: State Governments of U.P. and M.P.)

4. Oversight Committees comprising CPCB, concerned SPCB and respective DMs shall carry out continued verification of the implementation of action plans by industries in Singrauli & Sonbhadra, and furnish the status report once in quarter.

(Action: Oversight Committees of U.P. and M.P.)

5. Northern Coalfields Ltd. (NCL) to conduct feasibility study in excavated portions of all its operational mines as well as abandoned mines, along with availability of volume for backfilling of ash in mine voids or mixing of ash with external Overburden dumps. A template comprising details of all the mines may be formulated and a report in this regard may be submitted.

(Action: Ministry of Coal)

6. Ministry of Coal and Ministry of Mines to take effective steps for identification of more mines and make them available to coal and lignite based thermal power plants for backfilling and mixing of ash with external overburden dumps, in line with the Ash Utilisation Notification, 2021.

(Action: M/o Coal & M/o Mines)

7. Director General, DGMS may be co-opted as member of the Mission.

(Action: MoEFCC)

8. Committee under the chairpersonship of Chairman, CPCB may convene a meeting for identification of mines as well as for the development of SOP for making operational/abandoned mines available to the TPPs with M/o Coal, NCL, DGMS, NTPC, Anpara-UPRVUNL and other stakeholders, and prepare the plan for studies(mine-wise/region wise or as deemed fit) regarding availability of mines with timelines along with parallel steps for the necessary

approvals(as that of DGMS), for backfilling of ash and mixing of ash with OB in Singrauli and Sonbhadra region.

(Action: CPCB)

9. All thermal power plants shall scrupulously implement the action plans to achieve 100% ash utilization as per the compliance cycle prescribed under the Ash Utilisation Notification, 2021.

(Action: All TPPs in Singrauli and Sonbhadra region)

10. Action plans of thermal power plants shall also include status of annual safety certification of ash dykes and measures taken to prevent breaches, designation of officer responsible in this regard.

(Action: All TPPs)

11. Anpara TPP, UPRVUNL shall submit the time bound action plan for 100% utilization of ash vis-à-vis present utilization rates, backfilling of ash in Gorbi mines along with the concerns of MPPCB regarding pollution from transportation, and other plans for achieving 100% utilization of ash.

(Action: Govt of U.P., UPRVUNL)

12. Draft guidelines for technical specifications and annual certification of ash ponds/dykes may be finalised.

(Action: CPCB and CEA)

13. A meeting with Ministry of Coal, NCL, NTPC, Indian Railways, other TPPs, owners of private railway siding may be convened to identify mitigation measures for prevention, control and abatement of dust pollution predominantly caused by mining activities and transportation of coal in Singrauli region and furnish a detailed report. Accountability of pollution generated from coal transportation, loading and unloading activities may be fixed on TPPs, coal mines and railway siding (private or public) based on the jurisdiction of activities.

(Action: MPPCB and UPPCB)

14. Skilling and outreach programmes may be conducted on similar lines of training of SHGs by MPPCB for promoting switch over to ash based brick/product manufacturing.

(Action: MP and UP Govt.)

15. Enforcement measures regarding mandatory use of ash based products/bricks by all building construction agencies within 300 km radius of TPPs prescribed under Ash Utilisation Notification, 2021, shall be implemented to promote ash based product manufacturing.

(Action: UPPCB, MPPCB and concerned District Magistrates)

16. NHAI may be requested to utilize the ash for the road construction project.

(Action: MoEFCC)

17. As informed, studies found that red mud has alkaline in nature and is suitable for backfilling in acidic mines. Identification of an abandoned or working mine for disposal of red mud and boiler ash may be undertaken, if feasible.

(Action: CPCB)

18. Effective implementation of the mandate of 100% utilisation of ash by TPPs across the country must be ensured. In this regard, the compliance matrix shared along with the minutes of the first meeting must be implemented in a time bound manner and on a regular basis.

(Action: CPCB, CEA, All State Govts (having TPPs), All stakeholders as per Compliance Matrix)

List of Participants

1. Smt. Leena Nandan, Secretary, EFCC
2. Shri. Alok Kumar, Secretary, Power
3. Shri Tanmay Kumar, Chairman, CPCB
4. Shri Naresh Pal Gangwar, Additional Secretary, MoEFCC
5. Shri Anandji Prasad, Advisor, MoC
6. Dr. Satyendra Kumar, Director, MoEFCC
7. Shri Nazimuddin, Scientist F, CPCB
8. Shri N. Subrahmanyam, Scientist D, MoEFCC
9. Shri Chandra Mohan Thakur, MS, MPPCB
10. Shri Gurdeep Singh, CMD, NTPC
11. Shri Ramesh Babu, Director (Operations), NTPC
12. Shri MVR Reddy, ED, SSEA, NTPC
13. Shri S.K. Takhele, CGM (SEA), NTPC
14. Shri Chetan Awsathi, STA to ED (SSEA), NTPC
15. Shri Gaurav Gahlot, Scientist C, CPCB
16. Shri Durga Nand Jha, JRF, CPCB
17. RO, MPPCB, Singrauli
18. Shri Hemant K. Sharma, Director (Environment), MPPCB
19. Shri R.K. Gupta, Superintending Engineer, MPPCB
20. Shri Gulshan Raj, CE, CD, CEA
21. Shri Amit Kumar, Director, CD, CEA
22. Shri Madan Gupta, COO, Jaiprakash Power Ventures Ltd.
23. Shri M.K.V. Ramanrao, CTO, Jaiprakash Power Ventures Ltd.
24. Shri Jitendra Malik, Director, NCL
25. Shri H.B. Shinde, CM (Environment), NCL, Singrauli
26. Shri Shripal Bhatt, DGM (Civil), NOIDA
27. Dr. Avinash Tripathi, Officer on Special Duty, NOIDA
28. Shri Wasim Ahmed, Senior DGM, Lanco Anpara Power Ltd.
29. Shri Arun Tholia, ED(Commercial), Lanco Anpara Power Ltd.
30. Shri Rajeev Tyagi, P.G.M, UPSIDA
31. Shri Santosh Kumar, DGM, NTPC

32. Shri Guru Prasad, MD, UPRVUNL
33. Shri S.K. Dutta, Director (Project), UPRVUNL
34. Shri Vipul N. Rajyaguru, GM, Grasim Industries
35. Dr. Vijay Yadav, AGM (Environment), Grasim Industries Ltd., Renukoot
36. Shri Sayed M Islam, Manager (EHS), Birla Carbon
37. Shri V R Shankar, President, Aditya Birla
38. Smt. Vaishali Surawar, Hindalco
39. Shri Jitendra Prasad, Add. Vice President, Sasan Power Ltd.
40. Shri Sanjay Singh, Grasim Industries
41. Shri R.N. Shukla, GM (Environment), APL
42. Shri Rohit Kumar
43. Shri Utpal Sarkar
44. Shri Ashwani Tyagi
45. Shri V R Shankar