

F. No. 11/13/2023-HSMD
Government of India
Ministry of Environment, Forest and Climate Change
Hazardous Substances Management Division

Indira Paryavaran Bhawan,
Aliganj, Jorbagh Road,
New Delhi-110 003

Dated 11th October, 2023

To,
The Registrar General,
Principal Bench,
Hon'ble National Green Tribunal,
Copernicus Marg, New Delhi,-110001

Sub: Report in OA no. OA 862 of 2022 titled Pankaj Kumar Mishra vs. Union of India & Ors. passed by the Hon'ble NGT, Principal Bench, New Delhi on 10.05.2023 - reg.

Sir,

In compliance to the order dated 10.05.2023 passed by the Hon'ble National Green Tribunal in OA no. 862 of 2022 Pankaj Kumar Mishra vs. Union of India & Ors., the report is hereby attached with a request to put up before Hon'ble National Green Tribunal for consideration.

This issues with the approval of the Competent Authority.

Enclosure: As above

Yours sincerely,

N. Subrahmanyam
11/10/23

(N. Subrahmanyam)
Scientist-D
MoEF&CC

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**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Pankaj Kumar Mishra

Applicant

Versus

Union of India & Ors.

Respondent

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Report in compliance to order dated 10.05.2023 passed in OA 862 of 2022 titled Pankaj Kumar Mishra vs. Union of India & Ors. before the Hon'ble NGT, Principal Bench, New Delhi- reg.

1. The Hon'ble National Green Tribunal in the afore- cited matter passed the order dated 13.07.2023, relating to 100% utilization of fly ash
2. In reference to the directions passed, it is submitted that Ministry of Environment had published the notification on utilization of ash from coal or lignite based thermal power plants vide S.O.5481 (E) dated 31.12.2021(copy enclosed). This notification superseded the Fly Ash notification,1999 S.O. 5481(E) dated 14.09.1999 and subsequent amendments thereof. The Notification S.O. 5481 (E) dated 31.12.2021, has been further amended vide S.O. 6169 (E) dated 30.12.2022 (copy enclosed).
3. Ash Utilization Notification, 2021 mandates every coal or lignite based Thermal Power Plant to ensure loading, unloading, transport, storage and disposal of ash be done in an environmentally sound manner and all precautions to air and water pollution are to be taken as mandated under paragraph A (7).
4. The Ministry of Environment Forest and Climate Change has constituted 'Fly Ash Management Mission' in pursuance to the order dated 18.01.2022 in OA/164/2018, Ashwani Kumar Dubey vs. Union of India, vide office order dated 9th March 2022. The terms of reference of the Mission are:
 - i. To coordinate and monitor issues relating to handling and disposal of fly ash as well as all associated issues in light of the Joint Committee's recommendations for all the Thermal Power Plants and other industries in Singrauli and Sonebhadra industrial regions.
 - ii. To prepare an action plan as per the recommendations of the Joint Committee (as per Para 15 of the NGT Order dated 18.01.2022).
 - iii. To prepare resolutions and quarterly progress reports for information of stakeholders and inhabitants in the Singrauli and Sonebhadra industrial areas.
 - iv. The Mission may also consider the safeguards laid down in the Notification dated 31.12.2021, particularly for safety audits of the ash dykes which should be conducted particularly for structural stability, as far as possible within six months.
 - v. The Mission may monitor scientific management and utilization of fly ash **by power projects outside Singrauli and Sonebhadra, in coordination with** Chief Secretaries of concerned States and adopting safety measures for ash dykes, installing devices to control air pollution,

- (including FGDs, OCEMS) in a time bound manner and restoration of environment and public health.
- vi. The Mission may take up any other matter towards meeting the overall objectives.

5. The Mission held meetings on 24.11.2022, 31.01.2023, 01.05.2023 and 04.07.2023, respectively. Minutes of meetings of the Mission dated 24.11.2022, 31.01.2023, 01.05.2023 and 04.07.2023 are enclosed.

6. During the meetings, the Mission has reviewed progress of implementation of Action Plans by Thermal Power Plants, coal mines, industries and stone crushers in Singrauli and Sonebhadra region for control and abatement of air pollution including the control of pollution arising from loading unloading, transport, storage and disposal of fly ash.

7. It is submitted that the Fly Ash Utilization and Management Mission has undertaken a number of measures that relate to the recommendation of the Joint Committee made in the report.

S. No.	Action/ Recommendation	Responsibility	Status
1.	Secretariat at CPCB to upload the action plans and the progress of the action plans on the web portal of CPCB by 5th of next month, the link of which may be placed on MoEFCC as well as the concerned State Government's and other stakeholders' websites. CPCB to put in place an IT based tool for updating the progress in regard to the implementation of	CPCB, State Govts of UP and MP, All stakeholders	Action plans were submitted by power plants, coal mines and industries in Singrauli and Sonbhadra. Action Plans shared with Oversight Committees members for MP and UP have been scrutinised. A web page - "Fly Ash Management and Utilization" – to place relevant information in public domain has been created.

	action plans		
2.	Concerned State Governments, the State Environment Departments and concerned SPCBs to take all measures for the prevention, control and abatement of the industrial pollution in Sonbhadra and Singrauli districts to bring down the pollution levels in these districts. The compliance of the conditions of CTOs as well as ECs in respect of all the industries, including the installation and functioning of all pollution control as well as monitoring devices, must be strictly complied with by all industrial/mining/quarrying units.	State Governments of U.P. and M.P.	Reports have been received.
3.	All the industrial, coal and other mining activities as well as the stone quarrying and crushing in the districts of Sonbhadra and Singrauli must be carried out in compliance with the	State Governments of U.P. and M.P.	Respective stakeholders TPP, SPCB have been directed for implementation and compliance.

	Air Act, Water Act and EP Act. Regular inspections and audits to be carried out by the concerned SPCBs		
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.	Oversight Committees of U.P. and M.P.	Oversight Committees of U.P. and M.P. carried out verification. Report submitted.
5.	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.	All TPPs in Singrauli and Sonbhadra region	Status of ash utilization received from TPPs in Singrauli and Sonbhadra for FY 2021-22 & FY 2022-23.
6.	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	MPPCB and UPPCB	Based on the recommendation of Oversight Committee, MPPCB imposed Environmental Compensation on Railways (ECR & WCR) and NCL on 17.03.2023. Concerned have been

	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.		directed to undertake following; i. Coal mines were mandated to procure mechanical sweepers, fog and mist sprinklers for taking up dust mitigation measures. ii. Coal mines were directed to set up coal handling plant and railway siding for evacuation of coal through rail to match to the expanded production capacities iii. Jayant, Dudhichua and Nigahi coal mines were issued notices for taking dust pollution control measures for avoiding contamination of water bodies. Notices served to impose environmental compensation. iv. Suliyari open cast mine, Amelia coal mine, Mohar and Mohar Amlori coal mine
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			and Amelia north coal mine were directed to set-up concrete roads and procure mechanical sweepers and water sprinkling machines for control of air pollution. v. 8 railway sidings (ECR-3, WCR-3 and NCL-2) were directed for ensuring installation of air pollution control measures. vi. PWD was directed to inspect the construction of roads for control of air pollution Railway sidings: ECR-3, WCR-3, NCL-2 SECL. Directed for air pollution control measures.
7.	NHAI may be requested to utilize the ash for the road construction project. Utilization of ash in the road construction project NH39 from Sidhi to Waidhan, Singrauli, M.P. for 92 km. MoRTH may	MoEF&CC & MoRTH	Chairman, NHAI has been requested to utilize ash in road construction projects vide letter dated 04.05.2023.

	be requested to issue necessary instructions to NHAI to engage with TPPs for utilization of ash		
8.	Effective implementation of the mandate of 100% utilisation of ash by TPPs across the country must be ensured. In this regard, the compliance matrix along with the stakeholder mapping shared with concerned stakeholders to be implemented in a time bound manner and on a regular basis.	CPCB, CEA, All State Govts (having TPPs), All stakeholders as per Compliance Matrix	M/o Power issued show-cause to 43 TPPs (37 <60% and 6 TPPs 60-80% utilisation) Out of 186 independent TPPs (FY 2021-22): i. 144 TPPs complied under 3 years compliance cycle with >80% ash utilization ii. 21 TPPs complied under 4 years compliance cycle with 60-80% ash utilization iii. 38 TPPs complied under 5 years compliance cycle with <60% ash utilization 12 TPPs: Non-operational; 01 data not received.
9.	Dust containment and suppression measures are to be taken by the stone crushers. Carry out assessment of air quality in and around stone crushers on regular basis to verify the impact of	Stone crushers in Singrauli and Sonbhadra region, MPPCB & UPPCB	Action taken report received from MPPCB and UPPCB.

	mitigation measures taken by the stone crushers.		
10.	All thermal power plants and stone crushers shall update the progress in regard to the implementation of action plans by respective stakeholders	All TPPs and stone crushers in Singrauli and Sonbhadra region	Regular reports are submitted by stakeholders.
11.	Inter-state transportation of ash is to be permitted for utilization of ash in the specified eco-friendly purposes along with safeguards for pollution control and mitigation.	Govt. of UP and M.P.	Engagement between states for inter-state transfer for transportation of ash in eco-friendly manner.
12.	Submission of time-bound action plan for achieving 100% utilization of ash by TPPs.	UPRVUNL, NTPC and Anpara Lanco, All TPPs	TPPs have submitted the action plan for utilization of ash as per Ash Utilization Notification, 2021.
13.	In order to ensure 100% utilization of ash by all lignite and coal based thermal power plants across the country, effective monitoring and supervision of provisions of Ash Utilization Notification dated 31.12.2021 have to	CPCB, MoP, CEA, All State Govts, All stakeholders	CPCB to coordinate with the State Governments/SPCBs/all regulatory/ enforcement agencies to ensure the compliance in a time bound manner and on regular basis.

	be scrupulously complied with. Respective stakeholders have been mapped in respect of the various activities mandated under the notification which has been shared with CPCB with the minutes of previous meeting. Concerned SPCBs to implement the provisions of Ash Utilization Notification, 2021 regarding TPPs to ensure loading, unloading, transport, storage and disposal of ash be done in an environmentally sound manner and all precautions to air and water pollution are to be taken as prescribed under para A(7).		Concerned SPCBs to implement the provisions of Ash Utilization Notification, 2021 related to loading, unloading, transport, storage and disposal of ash in an environmentally sound manner and take all precautions to air and water pollution.
14.	Ambient air quality monitoring in and around stone crushers to be conducted and baseline data of last two years (same season) be analysed to verify impact of mitigation measures taken by stone crushers.	State Govts. of U.P. and M.P., UPPCB and MPPCB	MPPCB conducted air quality monitoring around Phulwari, Sonbhadra District. Due to the installation of pollution control systems such as water sprinkler, greenbelt development, wind breaking wall and dust containment cum

	This may be carried out on a regular basis and data may be compiled in a continuous manner to assess the improvements as well as its sustainability.		suppress system, air quality (PM10 levels) were found to be within the prescribed standards. Out of 63 inspected stone crushers, 3 crushers are to be closed and remaining crushers to meet timelines for pollution control. Air pollution control system including laying of pucca roads have been installed in all 313 stone crushers and no new stone crushers is allowed to established in UP. 155 stone crushers were inspected out of which 47 defaulting units were issued show-cause notices under Air Act. An area of 10 Ha is afforested by Miyawaki technique for the control of dust pollution.
15.	SOP to be laid down for stipulation of measures to be taken during road transportation of ash, in the permission/ Consent to Operate issued for transportation and backfilling of mine void with ash	State Govt. of U.P. and M.P., MPPCB and UPPCB)	Compliance by the State Governments in this regard.

	and mixing the ash with OB.		
16.	All the pending/ongoing activities in respect of implementation of decisions made during 1st, 2nd and 3rd meeting of the Mission shall be undertaken and action taken report shall be furnished. Progress to be updated on the website on monthly basis. Necessary formats may be put up on the website to enable all stakeholders to upload the progress online. Login and passwords for all stakeholders to be generated immediately.	Concerned Ministry/ CPCB/ State Govts./ SPCBs/ Organisation	Concerned stakeholders have been requested to furnish the action taken report.

	and mixing the ash with OB.		
16.	All the pending/ongoing activities in respect of implementation of decisions made during 1st, 2nd and 3rd meeting of the Mission shall be undertaken and action taken report shall be furnished. Progress to be updated on the website on monthly basis. Necessary formats may be put up on the website to enable all stakeholders to upload the progress online. Login and passwords for all stakeholders to be generated immediately.	Concerned Ministry/ CPCB/ State Govts./ SPCBs/ Organisation	Concerned stakeholders have been requested to furnish the action taken report.

N. Subrahmanyam 13/10/23
 (एन. सुब्रह्मण्यम)
 (N. SUBRAHMANYAM)
 वैज्ञानिक 'डी' / Scientist 'D'
 पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
 M/o Environment, Forest and Climate Change
 भारत सरकार, नई दिल्ली
 Govt. of India, New Delhi

Item No. 02

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
(BY VIDEO CONFERENCING)**

Original Application No. 862/2022
(I.A. No. 309/2022)

(With reports dated 21.04.2023 and 28.04.2023)

Pankaj Kumar Mishra

Applicant

Versus

Union of India & Ors.

Respondent(s)

Date of hearing: 10.05.2023

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Respondent(s): Mr. Atif Suhrawardy, Advocate for CPCB

ORDER

The issue

1. Grievance in this application is against failure of concerned project in Singrauli and Sonbhadra in U.P. and M.P. to control air pollution. Such pollution is taking place during transportation of fly ash by Thermal Power Stations in violation of CPCB Guidelines and also activities of unregulated coal mining and stone crushers. Vide order dated 25.11.2022, the Tribunal sought a factual report from a joint Committee comprising MoEF&CC, CPCB and State PCB.

Factual report of joint Committee

2. Accordingly, report dated 21.04.2023 has been filed by the CPCB with regard to violations found in two parts - first part deals with area

falling in Madhya Pradesh and second with that falling in UP. Report dated 28.04.2023 filed by UP State PCB mentions the follow up action against the violators. We may mention further details of the said reports.

3. Report dated 21.04.2023 with regard to the area falling in Madhya Pradesh

Issues considered

“• Need for installation of the CCTV camera at the strategic locations to track the movements of trucks carrying coal & ash for checking their proper tarpaulin covering and also to keep a tab on the vehicles responsible for coal and ash on public roads.

• Need for regular cleaning of roads/sweeping of transportation roads where ash & coal dust gets deposited and get entrained on truck movement.

• There are few improper turns/speed breakers on the road from Shaktinagar to Auri to Anapra (Uttar Pradesh) that requires proper scientific designing to avoid road accidents.

• Need for alternate roads/dedicated roads are to be provided/constructed for public vehicles as coal & fly ash transporting vehicles and public vehicles plying on the same road is resulting in increasing number of accidents.

• The road shoulders are not pucca, due to which on vehicle movement the coal dust & fly ash deposited on the sides of the road, get entrains in the ambient and cause heavy fugitive emission.

• There are residential areas adjoining the Shaktinagar to Auri to Anapra Road of Uttar Pradesh which remain heavily affected due dusty surroundings.”

The Committee verified compliance status by different Thermal Power Stations, Coal Mines and Stone Crushers and found serious violations and failure in controlling the air pollution in violations of EC and consent conditions. The Committee has recommended measures required to be followed by the different projects. Observations and recommendations of the Committee are as follows:-

“➤ The coal transported via road majorly goes to Uttar Pradesh (UP) by the route of Shaktinagar to Auri to Anapara (UP) & other places. The second major road route opted for transporting the coal is Jayant mod to Shukla mod to Auri to Anpara (UP) & other places.

➤ The road widening and road repairing work was ongoing of prominent road route of Madhya Pradesh i.e. Jayant mode to Shukla Mod.

➤ The coal dust was found lying on the side of the road route of Jayant to Singrauli to Auri Road. However, ongoing cleaning work was also observed during visit.

➤ The water sprinkler & fogger were found operation on the road route of Jayant mod to Shukla mod

➤ The coal transportation was being done in trucks and tippers. On random check of the vehicles covers, it was found that a good number of covers were either damaged/torned or were inadequate to cover the truck fully to avoid fall of coal. Secondly the quality of the cover used is also not good. Heavy duty HDPE tarpaulin or cloth cover of required thickness (such as 400GSM or more) to be used for avoiding fall of coal from vehicles. Automatic / mechanical type of tarpaulin cover system shall be installed on each vehicle carrying coal as envisaged in the CPCB Guidelines of 2013 for the transportation of fly ash, for the transportation of coal as well.

➤ On random check, it was observed that the dry ash is being transported in bulkers and specially designed covered trucks whereas the wet ash was being transported in truck with full cover on the truck. Transportation of wet ash through tractors is also in practice. However, as stipulated in the CPCB guideline, 2013; currently no such mechanically designed covered trucks are in use to transport the ash from the ash dyke.

➤ No effective vigilance through CCTV was found on the major routes of coal & ash transportation.

➤ M/s. Suliyari Opencast Coal Mines Project (APMDC) transporting its coal 100% via road to Gajra Behra coal siding and M/s Mahan Energen Ltd Thermal Power Plant and proper upkeep of the transportation road and its timely wetting by water sprinkling has been found to be a concern, about which a large number of local villagers have recorded their protest before the visiting team.

➤ Progress was observed in the coal mines regarding the proposed new coal handling plants. But the concern remains that the coal mines has undergoing capacity expansion day by day. May be that percentage-wise the coal transportation by road may look less due to installation of added capacity of CHPs, but consequent to the capacity expansion, quantity (tonnage) of coal transport will also increase. Hence strict compliance and vigilance on the part of coal mines will be more required.

➤ **Bad transportation road and delaying in road construction also seems to be cause of concern for the dust on the roads, or trucks dropping coal / fly ash on roads due to bad road conditions, ruts and pot holes etc.**

8.0 Recommendations

- i. The transporters are using poor quality/ineffective tarpaulin of thin layer as the thickness of tarpaulin is not specified yet. The coal mines & TPPs may be directed to ensure that the truck/tippers cover is of heavy duty such as 400GSM & more thickness and adequate is size to avoid fall of coal & ash on road during transport
- ii. Coal mines, Thermal Power plants and District Administration may jointly establish the night vision Pan-tilt-zoom CCTVs & lights at prominent locations along the roads used for transportation of coal & ash. Also establish a control room (24x7) at the Office of Collector/traffic police office with dedicated staff to have effective vigilance on the vehicles engaged in coal and ash transportation.
- iii. The TPPs / Coal mine should also device a mechanism to impose penalty on violation by the truckers / transporters including blacklisting the violators or not allowing the trucks found with improper body or insufficient covers to enter their premises to load coal / fly ash. A checklist in this regard shall be maintained at the entry to the mines/TPPs and vehicles not adhering to the norms shall not be allowed to enter the mines/TPPs. Such checklist shall be made available to all the regulatory authorities on request.
- iv. Coal mines in consultation with third party agency and road making authorities (NHAI, MPRDC/PWD) shall formulate a traffic management plan with emphasis on road safety on the prominent routes of coal & ash transportation to decongest the traffic and minimize possibility of accidents
- v. Coal mines & TPPs to ensure that all the vehicle engaged in transportation of fly ash & coal has valid Pollution Under Check (PUC) certificate and also carryout periodic random PUC check of the vehicles in co-ordination with Regional Transport Office.
- vi. Thermal Power plant shall engage mechanically designed vehicles to transport the wet ash too.
- vii. MPPCB to ensure effective implementation of the CPCB guideline (2016) for “disposal/ utilization of Fly ash for reclamation of low-lying areas and in stowing of abandoned mines/quarries”. Further, MPPCB shall provide the low-lying area for filling as per

- the notification and place the allotted locations details (agency, capacity, geo-location etc.) on their website.*
- viii. Nagar Nigam shall deploy mechanized road sweeping machines (on contractual basis) all along the coal & fly ash transportation corridor falling within the municipal limits and the expenditure incurred for the said contract shall be borne by the respective coal/fly ash producers based on their contribution towards road transport.*
 - ix. The district administration in consultation with the neighboring state of UP as well as PWD / Nagar Nigam shall make short term and long-term plan to create alternate / separate roads for the coal / fly ash transportation and for the commuting of the general public.*
 - x. The NAHI should ensure that the work of the National Highway (NH 39) that is being under construction for a long time should be completed at the earliest.”*

4. With regard to area falling in UP

Identical situation has been found. The report mentions site inspection on 21-22.02.2023 of Coal Mines, Thermal Power Plants and Stone Crushers as per details mentioned. Violations have been found in operation of the said units during transportation of coal, fly ash handling and operation of stone crushers. Recommendations have been made with regard to all the three activities as follows:-

“22. Recommendations: *Following are some of the recommendations suggested by the committee to control the air pollution in the area.*

Steps needs to be taken for Fly Ash management and Transportation

22. 1. The TPPs can be asked to strictly follow the CPCB guideline for transportation of pond ash by road. The conditions specifically related to moisture content in the transported ash and vehicle condition need to ensured strictly.

22.2. TPPs also needs to install tyre cleaning facility for transportation vehicle before reaching to the public road.

22.3. The TPPs can be asked to explore the possibilities to increase the use of dry ash instead of pond ash, as the dry ash transportation trough bulker is relatively less polluting.

22.4. The TPPs can be asked to maintain wet surface condition of the ash dykes to avoid the dust emission during the windy condition.

22.5. Committee observed that the fly ash dyke management of the almost all thermal power plant is not up to the mark (Stabilization, maintenance, slope, water recirculation system, transportation, etc.) specially with Obra TPP, Anpara TPP and Shaktinagar TPP. Fly ash dyke can also play pivotal role in generation of dust specially during summer due to improper management. Overall, its management need to be review. MOEF&CC and CPCB can jointly review the Fly ash dyke Management of the entire dyke available in the area in question.

22.6. Improper fly ash dyke management can trigger dyke breaching in the area in question which ultimately plays a significant role in dust emission. Necessary measures can be taken by all TPPs.

22.7. Majority of Road connected from fly ash dykes to main road are unpaved. Local administration can ensure that the all-approach road can be blacktopped and uses of water sprinkler on regular basis for controlling of dust within six months.

22.8. UPPCB can be asked to initiate action against the defaulter TPPs for the various violations as mentioned in the report above

22.9. The illegal dumping of ash along the road sided and inside the forest area is the matter of serious concern. And at the same time none of the TPP is taking responsibility for this dumping. Hence, the vehicle involved in the ash transportation should be GPS enabled and every TPP can be asked maintain the record of the GPS tracking for cross verification

22.10. Similarly, considering the difficulty in monitoring such kind of illegal disposal and fixing the responsibility of the violator, a group of representatives from every TPP can be formulated. Every TPP can be asked to nominate the official working as chief of the environmental cell in the group. And this group can be made responsible for finding out TPP unit responsible for such illegal disposal of the ash. And in case, this group fails to identify the violator, all the TPPs can be held responsible and equal penalty can be imposed through UPPCB.

Steps needs to be taken for Coal handling and Transportation

22.11. Every NCL mining project should install adequate number of fog cannon machines at all the strategic point inside the mining area to suppress the airborne dust. UPPCB should review the installation of the systems on periodic basis

22.12. All the NCL mines should review the frequency of the water spraying on the internal roads through the tankers.

22.13. Every NCL mine should develop SOPs to monitor the status of fugitive emission in the mine area through existing CCTV network. The SOPs should contain guideline to take steps to control the fugitive emission.

22.14. NCL mines can be asked to brought down the road transportation below 10% to comply with the condition of the Environmental Clearance.

22.15. Every NCL mine should install the tyre cleaning facilities for the vehicles used for road transportation of coal and it should be ensure that the tyre of the vehicle reaching to the public road is free from the coal dust

22.16. NCL mining projects should ensure close monitoring of the vehicle involved in the coal transportation. And at any cost the vehicle without authorized number plates and leakages in the body of vehicle should allowed for transportation.

22.17. Every NCL mine should collect the coal dust deposited along the public road by deploying vehicles with vacuum extraction system, and should ensure the beneficial usage of the collected coal dust. They can be asked to maintain records of the same for the verification purpose

22.18. Every NCL mine should strictly comply the condition of the tarpaulin cover on the transportation vehicles as mentioned in the office memorandum issued by MoE&CC. At any cost the coverage through LDPE plastic sheets or green net should be permitted.

22.19. Every NCL mining project should construct a concrete approach road from the coal mine gate to the public road and should also ensure its maintenance and cleanliness.

22.20. Significant quantity of dust is also emitted during loading of coal/fly ash on railway wagon. It is utmost important by concern project to adopt closed loop system for minimization of the dust during loading of coal/ fly ash in railway wagon at earliest.

22.21. As suggested for the TPPs above, a group of representatives from every NCL mining project can be formulated having with officials working as chief of the environmental cell in each project. This group can be made responsible for ensuring coal dust free public roads. And in case, this group fails to comply, equal penalty can be imposed through UPPCB on all the mining projects.

22.22. The TPPs receiving coal through road should ensure that the truck used for transportation is properly covered with tarpaulin. And in case of default, the same can be reported to NCL for taking necessary action

22.23. Every TPP should deploy adequate number of fog canon machines to control the dust from coal storage areas.

22.24. UPPCB should take immediate action against the N CL mining projects wherein in coal fire incidents are observed.

Steps needs to be taken to control fugitive emission from other industrial sectors

22.25. M/s Hindalco should deploy adequate number of fog cannon machines to suppress the dust from the red mud storage area. UPPCB can initiate action against the unit for not taking any precautionary measure to control the fugitive emission from red mud storage areas.

22.26. The sever air-borne dust in the stone crusher area is matter of serious concerns.

22.26.1. UPPCB can be asked installed separate CAQMS on the stone crushing area i.e., in Dalla area, for regular monitoring of air quality. Till the time UPPCB should manually monitor the ambient air quality of the area at least twice a week.

22.26.2. Local admiration can take cognizance of the air quality data and take prompt action on it. All stone crusher plant can be closed, if, fails to complying the Ambient Air Quality Norm. Responsibility of the individual industry can also be fixed on the non-compliance of the Norms prescribed under AAQ after six months.

22.26.3. No further stone crushers should be allowed in these clusters as UPPCB has a stone crusher siting guidelines requiring distance between any two stone crushers.

Steps needs to be taken for betterment of public road condition

22.27. Setting of advance CCTV Camera network on main public roads used for the transportation of the coal, fly ash etc. for proper surveillance. In a first phase the Auri Mode to Shakti Nagar Road can be considered for installation of CCTV surveillance.

22.28. Each unit can be asked to deploy the adequate number of mist guns/ fog cannons to suppress the airborne dust. The required number can be calculated by UPPCB considering the capacity of the unit and number of trucks involve in road transportation

22.29. To avoid the disturbance to the public transportation and to control the air pollution, Scientific Transportation Management Plane (STMP) need to be prepared by Local Administration under consultations with the UPPCB, the plan can be scientific based on the

peak dust emission on the road, which can be easily assess by the data of installed CAQMS, average vehicular movement per day etc.

22.30. Unpaved area of road side can be paved by using fly ash block, which may substantially reduce the dust emission on the road.

22.31. Regular and substantial road cleaning is another way to minimize further dust emission specially from the both side of median and unpaved area of the road. The coal dust deposited along the roadside needs to be collected through the vacuum extraction system for beneficiary utilization.

22.32. It has been observed that the median of the national highway are without any green cover of plant, it is utmost important to create proper green cover on the median of the National Highway by concerned authority for controlling of road dust.

22.33. The establishment of the road green belt (RGB) is an effective means to reduce particulate matter (PM_{2.5}) emissions from road traffic. It is utmost important to execute CPCB guideline for controlling of dust emission.

22.34. District administration through NHAI can explore the possibility to develop green belt along the road side in accordance with the guideline developed by Indian Road Congress (IRC).

Steps required to resolve other identified issues

22.35. Local administration through police can controlled the unauthorized coal burning used by local people and shops. More stringent surveillance is required during winter.

22.36. UPPCB can ensure that the each and every industry colony will setup concrete Solid Waste Management System (SWMS) to avoid further burning of solid waste within six months.

22.37. Dust sequestration study of individual unit can be conducted by organization of international repute likes, BHU, NEERI, IIT etc.

22.38. Chief Medical Officer (CMO) can be asked to conduct survey among the people living side of the highway, dust prone area in light of lung related disease etc. In addition to above he may also create separate inventory for the asthmatic patient of the area in question

22.39. The action can be initiated in under Forest Act against Mis Renusagar TPP and M/s Obra TPP for carrying out excavation/ mining in the forest area.

Further, it is humbly submitted that the Hon'ble NGT in the matter of OA No 164/2018 has constituted a fly ash

management and utilization Mission to be jointly headed by the Secretaries, MoEF&CC, Coal and Power, Gal, and Chief Secretaries of UP and MP. It is pertinent to note that the issues raised in the present application are closely linked to the scope of the aforementioned Mission. And hence the finding of the committee can be referred to the Mission for its consideration.”

5. **Report dated 28.04.2023 of UP State PCB** mentions follow up with reference to recommendations of the joint Committee with regard to units in UP - NCL-Bina, Distt. Sonbhadra and Obra Thermal Power. Closure order has been passed against seven defaulting stone crushers under the Air (Prevention and Control of Pollution) Act, 1981.

Consideration and further directions

6. We have considered the matter in the light of the above. From the factual report by the joint Committee, it is seen that covers of the vehicles used for transportation were inadequate to prevent spillage of coal. Quality of covers was not good. There are no mechanically designed covered trucks to transport ash nor effective vigilance through CCTV. There was no timely sprinkling which was resulting in air pollution. Thus, there are violations which need to be stopped forthwith and accountability fixed for past violations. We have noted from the report that following units are operating and have been found to be violating the norms by the Committee in M.P. and U.P:-

IN MADHYA PRADESH

Thermal Power Plants

1. M/s. Vindhyachal Super Thermal Power Project-NTPC, Stage -I (6 Units)
M/s. Vindhyachal Super Thermal Power Project - NTPC Stage II (2 Units)
M/s. Vindhyachal Super Thermal Power Project, NTPC, Stage-III, (2 Units)
M/s. Vindhyachal Super Thermal Power Project Stage-IV, (2 Units)

M/s. Vindhyachal Super Thermal Power Project Stage-V (1 Units)

2. M/s. Sasan Power Limited, Village, Siddhikhurd, Post- Tiyara, Tal & Dist: Singrauli (M.P.) (6 Units)
3. M/s Jaiprakash Power Ventures Ltd.-Jaypee Nigrie Super Thermal Power Project, Vill. - Nigrie, TahsilDeosar Distt. - Singrauli MP (2 Units)
4. M/s. Mahan Energen Limited (Formerly Known as Essar Power MP Ltd.), Vill: Bandhaura, Teh. Mada, Dist: Singrauli (M.P.) (2 Units)
5. M/s. Hindalco Industries Limited- Mahan Aluminum Project, Vill: Bargawan, Tal: Devsar, Dist: Singrauli (M.P.) (6 Units for captive power generation)

Coal Mines

1. M/s. Bina Ext Project- NCL
2. M/s. Khadia Project-NCL,
3. M/s. Dudhichua ProjectNCL
4. M/s. Jayant Project-NCL
5. M/s. Nigahi Project-NCL
6. M/s. Amlori Project-NCL
7. M/s. Block B Project-NCL
8. M/s. Jhingurda Project-NCL
9. M/s. Suliyari Opencast Coal Mines Project (APMDC)
10. M/s. THDC India Limited
11. M/s. Amilia North Coal Mining Project, Jai Prakash Power Ventures Ltd
12. M/s. Moher & Moher, Amlori Extension

IN UTTAR PRADESH

Coal Mines

1. NCL Dudhichua
2. NCL Bina
3. NCL Khadia
4. NCL Krishnashila
5. NCL Kakri

Thermal Power Plants

1. M/s NTPC Rihand
2. M/ s Anpara TPP
3. M/s NTPC Shakti Nagar
4. M/s Lanco TPP
5. M/s Renusagar TPP
6. M/s Obra TPP

Other Industries

1. M/s Hindalaco Industry
2. M/s Ultratech Cement, Dalla
3. M/s Ultratech Cement (Dalla Super)
4. M/s Grasim Chemical Industry
5. M/s Birla carbon black

7. It is further mentioned that there are around 313 stone crushers operational near the Dalla area. Other units have to be identified.

8. The report also states that the issue of fly ash management in the area by thermal power stations stands covered by the directions of this Tribunal vide order dated 18.1.2022 in OA 164/2018, Ashwani Kumar Dubey v. UOI and thus remedial action with regard to the violations now found can be overseen by the said committee.

Directions

9. In the light of above, concerned PPs - Thermal Power Plants, Coal Mining Units and Stone Crushers and also management of Railway Siding have to forthwith take necessary preventive and remedial measures, including measures to control dust emissions while transporting coal and fly ash as well as during industrial operations in terms of EC and consent conditions. Fly ash handling and utilization has to be in accordance with laid down procedures. In case of violations, statutory regulators have to close such units till compliance. Further, accountability has to be fixed for past violations. The measures so far taken by UP State PCB are not adequate. There is no report about remedial action by the MP State PCB.

10. The report of the Committee is available on the website of NGT. The respective State PCBs may also place the same on their websites so that PPs can access the same and give their response.

11. As rightly pointed out by the Committee, the issue of fly ash management in the area by thermal power stations has already been dealt with by the Tribunal vide order dated 18.1.2022 in OA 164/2018, *Ashwani Kumar Dubey v. UOI*. Operative part of then order is as follows:

“21. In the light of above discussion, it is patent that remedial measures are required in terms of recommendations set out in para 15 above in respect of individual TPPs or other projects as well as general issues applicable to all the TPPs such as timely installation of air pollution control and monitoring devices, timely utilisation and disposal of fly ash, scientific designing of fly ash dykes and safety norms, addressing public health issues, steps for restoration of deteriorated environment by bringing down CEPI scores in the entire area, restoration of Rihand Reservoir and other damaged/ degraded areas, providing arrangement for public health facilities, including water supply and by coordinated and concerted efforts and high level monitoring. The PP are to be accountable for past violations and are under obligation to remedy the violations and follow the norms for future. The regulators are to enforce the same and higher authorities are to oversee. Accordingly, following direction are issued:

- i. **We direct constitution of a fly ash management and utilization Mission to be jointly headed by the Secretaries, MoEF&CC, Coal and Power, GoI and Chief Secretaries of UP and MP. The Secretary, MoEF&CC will be the nodal agency for coordination and compliance.** The Mission will coordinate and monitor issues relating to handling and disposal of flyash as well as all associated issues in the light of above discussion. It may hold its first meeting within one month to take stock of the situation and to prepare action plan in the light of recommendations of Joint Committees quoted earlier in para 15 above in respect of individual plants as well as road map generally. Thereafter, it may meet atleast once in a month for one year to review the progress. The resolutions of the Mission and quarterly progress may be placed on the website of MoEF&CC for information of the stake holders and inhabitants in the area. The Mission will be free to interact with the concerned Government Departments/ Expert institutions/ individuals/ other stakeholders. The Mission may in its first meeting require voluntary financial contribution by all the projects in proportion of the financial capacity of the projects out of CSR funds or otherwise. The contribution, alongwith compensation which may be collected may be credited to a separate environment restoration account for restoration of environment and relief to the victims of damage to the environment in such manner as may be found necessary by the Mission. Any victim or aggrieved party will be free to approach the Mission for providing such relief. The Mission may also consider the safeguards laid down in the Notification dated 31.12.2021,

particularly for safety audits of the ash dykes which should be conducted particularly for structural stability, as far as possible within six months. Advisory issued by the Ministry of Power dated 22.9.2021 will not be enforced being against the spirit of notification dated 31.12.2021 and obstructing much needed speedy utilisation/disposal of legacy flyash. The Mission may evolve mechanism for interaction with stake holders, including associations of brick kiln owners. Guidelines be also issued for siting, design and engineering standards for the location, disposal, maintenance and regulation of Ash Ponds as breach of a fly ash ponds result in great disaster. Public health and risk impact assessment in the areas of operation of TPPs and generators of fly ash may be got conducted. The Mission may also monitor scientific management and utilization of fly ash by power projects outside Singrauli and Sonebhadra, in coordination with Chief Secretaries of concerned States and adopting safety measures for ash dykes, installing devices to control air pollution, (including FGDs, OCEMS) in a time bound manner and restoration of environment and public health. The Mission may also consider use of beneficiated coal. It may in particular consider on-site and off-site crisis management plans with regard to fly ash ponds and dykes. As noted earlier, legacy fly ash is 1670.602 Million Tonnes as on 31.12.2021 and data of ash generation and utilization of legacy fly ash is as follows:

“Summary of Ash Generation and Utilization during year 2020-21

No. of Thermal Power Stations:	191
Capacity (MW)	: 2,13,030 MW
Coal consumed	: 672.130 Million Tonnes
Fly Ash Generation	: 222.789 Million Tonnes
Fly Ash Utilization	: 205.098 Million Tonnes
Percentage Utilization	: 92.06%
Legacy flyash	:1670.602 Million Tonnes

The Committee of Secretaries, in coordination with PPs and statutory regulators, may draw a roadmap for utilization and disposal of entire legacy fly ash for Sonebhadra and Singrauli areas as well as for all the Power Plants located in clusters or standalone with tagging the sources to utilize fly ash on voluntary and compulsion mode for which required mechanism be laid down.

- ii. **With regard to past violations, the PPs remain liable and the Joint Committee of CPCB, State PCB and jurisdictional District Magistrates may determine compensation following due process, on the principles laid down inter alia in M.C. Mehta, (1987) 1 SCC 395, Sterlite (2013) 4 SCC 575 and Goel Ganga (2018) 18 SCC 257, having regard to the period of violation and financial capacity of the unit. The PPs may take**

remedial measures as per recommendations of the Committee and as per law, failing with coercive measures for continuing or future violations be taken by concerned authorities.

- iii. Statutory regulators may take action in terms of need for compliances in the light of recommendations with regard to individual Plants as well as generally so as to require the concerned PPs to comply, failing which coercive measures be taken by the statutory regulators in accordance with law.
- iv. In respect of incident dated 10.04.2020, compensation paid to heirs of the deceased at the rate of Rs. 10 lakhs per death is increased to Rs. 15 lakhs on principles laid down inter alia in *Sarla Verma (2009) 6 SCC 121* and *Uphaar Cinema (2011) 14 SCC 481*. We direct the remaining amount to be paid within one month. This order will not debar the heirs of the victims to claim higher compensation by approaching appropriate forum. If the salaries to persons appointed as compensation to the victims are below minimum wages, the PP may ensure compliance of law on the subject which may be also looked into by the concerned Labour Departments of the State of UP and MP. The statutory regulators may take further remedial action in terms of recommendations of the Committee in OA 148/2020, quoted earlier for restoration of environment and preventing such incidents.
- v. With regard to breach of Rihand Reservoir also, further remedial measures be taken in terms of recommendations on the subject, quoted in para 15 above.”

12. Accordingly, a copy of the report be forwarded to the Secretary, MoEF&CC for further action in terms of above order considering violations found by the Committee. An action taken report in the matter be filed within three months by the Secretary, MoEF&CC. CPCB may give information with regard to action taken for past violations in terms of direction (ii) above.

13. With regard to the issues not covered by the order dated 18.01.2021 i.e. compliance by mining units and stone crushers, we constitute a joint Committee of CPCB, UP and MP PCBs and District Magistrates and DFOs Singrauli area in UP and MP (nodal agency being CPCB and concerned State PCB) to oversee compliance of norms and determine the liability of erring units on ‘Polluter Pays’ principle for past violations having regard to nature and extent of violation, cost of remediation and turnover of the units. This exercise be completed within three months. The joint

Committee may also undertake carrying capacity of the area to sustain the number of stone crushers and siting criteria required to be followed including in terms of *inter-se* distance. Such carrying capacity be calculated based on the available data. Forest Departments of UP and MP may also take necessary action under the relevant statutory provisions to ensure that no fly ash/ash slurry or waste is dumped in forest area and necessary and requisite plantations are undertaken. The Forest Departments may also take necessary action against the violators, following due process of law. The Committee may also give the status of execution of plan to bring down Comprehensive Environmental Pollution Index (CEPI) level. **The joint Committee may give its report by 15.09.2023** by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF. Copy of the report may also be furnished to the stakeholders by placing the same on appropriate website, intimating the said stakeholders. Any party wishing to file their response may do so by 30.09.2023. Erring units may be put to notice of these proceedings by the concerned State PCB so that they have opportunity to file their respective response before this Tribunal, if so advised. If no response is filed, this Tribunal will pass further orders with regard to their accountability. Chief Secretaries of UP and MP may look into the issues with regard to measures to be taken by the State Administration such as construction of necessary roads in the area. Inter-state coordination mechanism may also be reviewed and strengthened. It is made clear that if there is a failure, the liability of the said States will also be determined by this Tribunal on the next date. In absence of any other data, the compensation of erring units may be determined at the rate of 1 per cent of the turnover of the concerned unit subject to assessed cost of remediation being recovered.

List for further consideration on 11.10.2023.

A copy of this order be forwarded to Secretary, MoEF&CC, Chief Secretaries of UP and MP, CPCB, UPPCB, MPPCB, District Magistrates and DFOs Singrauli area in UP and MP by e-mail for compliance.

I.A. No. 309/2022 has been filed for permission to file additional documents comprising of photographs of factual position on SH 5A Audi-Shaktinagar Road and NH-39 Singrauli Dibulganj- Renukoot Road located in Anpara, Sonbhadra, UP. The additional documents are taken on record but the applicant may serve the same on CPCB, UPPCB and MPPCB for consideration by the joint Committee. I.A. No. 309/2023 stands disposed of accordingly.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Dr. A. Senthil Vel, EM

May 10, 2023
Original Application No. 862/2022
(I.A. No. 309/2022)
SN



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असाधारण
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)
PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित
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नई दिल्ली, शुक्रवार, दिसम्बर 31, 2021/पौष 10, 1943
NEW DELHI, FRIDAY, DECEMBER 31, 2021/PAUSHA 10, 1943

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 31 दिसम्बर, 2021

का.आ. 5481(अ).—केन्द्रीय सरकार ने भारत सरकार के तत्कालीन पर्यावरण और वन मंत्रालय की अधिसूचना सं. का.आ. 763 (अ) तारीख 14 सितम्बर, 1999 द्वारा कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों से तीन सौ किलोमीटर के विनिर्दिष्ट व्यास के भीतर ईंटों के विनिर्माण के लिए उपजाऊ मिट्टी के उत्खनन को प्रतिबंधित करने के लिए और भवन निर्माण सामग्री के विनिर्माण में और संनिर्माण क्रियाकलाप में फ्लाई-राख के उपयोग को बढ़ावा देने के लिए निदेश जारी किए हैं;

और, प्रदूषणकर्ता भुगतान सिद्धांत (पीपीपी) के आधार पर, ऐसा करके कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों द्वारा फ्लाई-राख का 100 प्रतिशत उपयोग सुनिश्चित करते हुए और फ्लाई-राख प्रबंधन प्रणाली की संधारणीयता के लिए पूर्वोक्त अधिसूचना को और अधिक प्रभावकारी ढंग से कार्यान्वित करने हेतु, केंद्रीय सरकार ने मौजूदा अधिसूचना की समीक्षा की;

और प्रदूषणकर्ता भुगतान सिद्धांत के आधार पर पर्यावरणीय प्रतिकर निर्धारित किए जाने की आवश्यकता है;

और, विनिर्माण को बढ़ावा देकर तथा निर्माण कार्य के क्षेत्र में राख आधारित उत्पादों तथा भवन निर्माण सामग्रियों के प्रयोग को अनिवार्य करके उपजाऊ मिट्टी को संरक्षित करने की आवश्यकता है;

और, सड़क बनाने, सड़क एवं फ्लाई ओवर के रेलिंग बनाने, तटरेखा की सुरक्षा का उपाय करने, अनुमोदित परियोजनाओं के निचले क्षेत्रों को भरने, खनित स्थलों को फिर से भरने में मिट्टी की सामग्रियों से भरने के विकल्प के रूप में राख उपयोग को बढ़ावा देकर उपजाऊ मिट्टी और प्राकृतिक संसाधनों को संरक्षित करने की आवश्यकता है;

और, पर्यावरण को सुरक्षित करना तथा कोयला अथवा लिग्नाइट आधारित ताप विद्युत संयंत्रों से सृजित फ्लाई राख के निक्षेपण तथा निपटान की रोकथाम करना आवश्यक है;

और, उक्त अधिसूचना में जो 'राख' शब्द का प्रयोग किया गया है उसमें कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों से सृजित फ्लाई-राख और बॉटम-राख दोनों शामिल हैं;

और, केंद्रीय सरकार प्रदूषणकर्ता भुगतान सिद्धांत के आधार पर, पर्यावरणीय प्रतिकर की प्रणाली सहित राख के उपयोग के लिए एक व्यापक ढांचा लाना चाहती है;

अतः पर्यावरण (संरक्षण) नियम, 1986 के नियम (5) के उप-नियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, भारत सरकार के पर्यावरण एवं वन मंत्रालय की अधिसूचना जो का.आ. 763 (अ) तारीख 14 सितम्बर, 1999 द्वारा भारत के राजपत्र, असाधारण भाग II, खंड 3, उप खंड (i) में प्रकाशित का अधिक्रमण करते हुए, कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों द्वारा राख के उपयोग के संबंध में प्रारूप अधिसूचना जो सा.का.नि. 285 (अ) तारीख 22 अप्रैल, 2021 द्वारा भारत के राजपत्र, असाधारण, भाग-2, धारा 3, उप धारा (i) में प्रकाशित की गई थी जिसमें उन सभी व्यक्तियों से जिनका इससे प्रभावित होना सामान्य है उस तारीख से, जिसको उक्त प्रारूप उपबंधों की शासकीय राजपत्र में अंतर्विष्ट प्रतियां जनता को उपलब्ध करा दी गई थी, साठ दिनों के अवसान से पूर्व आक्षेप और सुझाव आमंत्रित किए गए थे।

और उक्त प्रारूप अधिसूचना के संबंध में उससे संभावित तौर पर प्रभावित होने वाले सभी व्यक्तियों से प्राप्त आक्षेपों और सुझावों पर केंद्रीय सरकार द्वारा सम्यक रूप से विचार कर लिया गया है;

अतः पर्यावरण (संरक्षण) नियम, 1986 के नियम (5) के उप-नियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए और अधिसूचना का.आ. 763 (अ) तारीख 14 सितम्बर, 1999 का उन बातों के सिवाय अधिकांत करते हुए जिन्हें ऐसे अधिक्रमण से पूर्व किया गया है या करने का लोप किया गया है, केंद्रीय सरकार कोयलों या लिग्नाइट आधारित ताप विद्युत संयंत्रों से राख के उपयोग के संबंध में निम्नलिखित अधिसूचना जारी करती है, जो इस अधिसूचना के प्रकाशन की तिथि से प्रवृत्त होगी, अर्थात्

क. फ्लाई-राख और बॉटम-राख का निपटान करने हेतु ताप विद्युत संयंत्रों (टीपीपी) के उत्तरदायित्व.-

(1) प्रत्येक कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्र (जिनमें कैप्टिव और/या सह-उत्पादन केंद्र शामिल हैं या दोनों) की यह प्राथमिक जिम्मेदारी होगी कि वह अपने द्वारा सृजित राख (फ्लाई-राख और बॉटम-राख) का उप पैरा (2) में दिए गए पारि-अनुकूल तरीके से 100 प्रतिशत उपयोग सुनिश्चित करे;

(2) कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों से सृजित राख का उपयोग केवल निम्नलिखित पारि-अनुकूल प्रयोजनों के लिए किया जाएगा, अर्थात्:-

- (i) फ्लाई राख पर आधारित उत्पाद अर्थात्: ईट ब्लॉक टाइल, फाइबर सीमेंट शीट, पाइप, बोर्ड, पैनल का विनिर्माण;
- (ii) सीमेंट विनिर्माण, रेडी-मिक्स कंक्रीट;

- (iii) सड़क निर्माण और फ्लाई-ओवर के रेलिंग का निर्माण, राख और जिओ-पॉलीमर आधारित निर्माण सामग्री;
- (iv) बांध का निर्माण;
- (v) निचले क्षेत्र को भरना;
- (vi) खनन कार्य से रिक्त हुए स्थान को भरना;
- (vii) सिंटेड या शीत-बद्ध राख संचय का विनिर्माण;
- (viii) मृदा परीक्षण के आधार पर नियंत्रित तरीके से कृषि;
- (ix) तटीय जिलों में तटरेखा संरक्षण संरचनाओं का निर्माण;
- (x) अन्य देशों को राख का निर्यात;
- (xi) समय-समय पर यथाधिसूचित किसी अन्य पारि-अनुकूल प्रयोजन के लिए।
- (3) अध्यक्ष, केंद्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) की अध्यक्षता में एक समिति गठित की जाएगी जिसमें पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय (एमओईएफसीसी), विद्युत मंत्रालय, खान मंत्रालय, कोयला मंत्रालय, सड़क परिवहन और राजमार्ग मंत्रालय, कृषि अनुसंधान एवं शिक्षा विभाग, सड़क कांग्रेस संस्थान तथा राष्ट्रीय सीमेंट एवं भवन सामग्री परिषद के प्रतिनिधियों को सदस्यों के रूप में शामिल किया जाएगा, जिसका प्रयोजन राख के उपयोग के पारि-अनुकूल तौर-तरीकों की जांच करना, उनकी समीक्षा एवं अनुशंसा करना तथा प्रौद्योगिकीय विकासों तथा पणधारी से प्राप्त अनुरोधों के आधार पर उप-पैरा (2) में यथोल्लिखित ऐसे तौर-तरीकों की सूची में समिति द्वारा सुझाए गए तौर-तरीकों को शामिल करना या किसी तौर-तरीके को सूची से हटाना या उसमें संशोधन करना है। जब भी इस प्रयोजन के लिए अपेक्षित हो, यह समिति राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति, ताप विद्युत संयंत्र और खानों के प्रचालकों को आमंत्रित कर सकती है। इस समिति सिफारिश के आधार पर, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय ऐसे पारि-अनुकूल प्रयोजन प्रकाशित करेगा।
- (4) प्रत्येक कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्र उस वर्ष के दौरान सृजित राख (फ्लाई-राख और बॉटम-राख) का 100 प्रतिशत उपयोग करने हेतु उत्तरदायी होगा; तथापि, किसी भी स्थिति में, किसी वर्ष में राख का उपयोग 80 प्रतिशत से नीचे नहीं होगा और साथ ही, उस ताप विद्युत संयंत्र को तीन वर्ष की अवधि में 100 प्रतिशत औसत राख के उपयोग का लक्ष्य प्राप्त करना होगा :

परंतु, यह और कि पहली बार के लिए लागू तीन वर्ष के चक्र को ऐसे ताप विद्युत संयंत्रों, जहां राख का उपयोग 60-80 प्रतिशत के बीच होता है, एक वर्ष के लिए और ऐसे संयंत्रों, जहां राख का उपयोग 60 प्रतिशत से कम है, दो वर्ष के लिए बढ़ाया जा सकता है, और राख के उपयोग की प्रतिशतता की गणना के प्रयोजन के लिए वर्ष 2021-2022 में उपयोग की प्रतिशत प्रमाणा को नीचे दी गई तालिका के अनुसार ध्यान में रखा जाएगा:

तापीय विद्युत संयंत्रों के उपयोग की प्रतिशतता	100 प्रतिशत उपयोगिता प्राप्त करने के लिए प्रथम अनुपालन चक्र	100 प्रतिशत उपयोगिता प्राप्त करने के लिए द्वितीय अनुपालन चक्र
>80 प्रतिशत	3 वर्ष	3 वर्ष
60-80 प्रतिशत	4 वर्ष	3 वर्ष
<60 प्रतिशत	5 वर्ष	3 वर्ष

परन्तु, ताप विद्युत संयंत्रों के लिए 80 प्रतिशत न्यूनतम उपयोग प्रतिशतता, क्रमशः 60-80 प्रतिशत और <60 प्रतिशत की उपयोगिता की श्रेणी के तहत आने वाले ताप विद्युत संयंत्रों के लिए प्रथम अनुपालन चक्र के पहले वर्ष और पहले दो वर्षों पर लागू नहीं होगी।

परन्तु, अनुपालन चक्र के अंतिम वर्ष में सृजित 20 प्रतिशत राख को अगले चक्र में भी ले जाया जाएगा जिसका उपयोग उस अनुपालन चक्र के दौरान सृजित राख के साथ अगले तीन वर्षों में किया जाएगा।

- (5) अप्रयुक्त संचित राख अर्थात् लीगेसी राख, जिसका इस अधिसूचना के प्रकाशन से पहले भंडारण किया गया है, को ताप विद्युत संयंत्र (टीपीपी) द्वारा इस रीति से क्रमिक रूप से उपयोग में लाया जाएगा, कि लीगेसी राख को इस अधिसूचना के प्रकाशन की तिथि से दस वर्षों के भीतर पूरी तरह उपयोग कर लिया जाएगा और यह उस विशिष्ट वर्ष के चालू संचालनों के माध्यम से राख उत्सर्जन के लिए निर्धारित उपयोग लक्ष्यों से अतिरिक्त होगा।

परन्तु, निम्नलिखित प्रतिशतताओं में यथा उल्लिखित लीगेसी राख की न्यूनतम मात्रा का उपयोग तास्थानी वर्ष के दौरान कर लिया जाएगा और लीगेसी राख की न्यूनतम मात्रा की ताप विद्युत संयंत्र की संस्थापित क्षमता के अनुसार वार्षिक राख उत्सर्जन के आधार पर की जानी है।

प्रकाशन की तिथि से वर्ष	पहला	दूसरा	तीसरा-दसवां
लीगेसी राख का उपयोग (वार्षिक राख की प्रतिशतता)	कम से कम 20 प्रतिशत	कम से कम 35 प्रतिशत	कम से कम 50 प्रतिशत

परन्तु, यह और कि लीगेसी राख का उपयोग वहां अपेक्षित नहीं है, जहां राख के तालाब या डाइक स्थिर हो गए हैं और हरित पट्टी के निर्माण या पौध रोपण से पुनरुद्धार किया गया है और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड इस संबंध में प्रमाणित करेगा। किसी राख तालाब या डाइक के स्थिरीकरण और भूमि-उद्धार का कार्य, जिसमें केन्द्रीय प्रदूषण नियंत्रण बोर्ड या राज्य प्रदूषण नियंत्रण बोर्ड द्वारा प्रमाणन शामिल है, इस अधिसूचना के प्रकाशन की तारीख से एक वर्ष के भीतर किया जाएगा। अन्य सभी राख के कुंड या डाइक में शेष बचे राख का उपयोग ऊपर उल्लिखित समय-सीमाओं के अनुसार क्रमिक रूप से किया जाएगा।

टिप्पण: राख के उपयोग के लक्ष्यों को हासिल करने के लिए उप पैरा (4) और (5) के अधीन दायित्व 01 अप्रैल, 2022 की तारीख से लागू होंगे।

- (6) किसी भी नए तापीय विद्युत संयंत्र (टीपीपी) में 0.1 हेक्टेयर प्रति मेगावाट (एमडब्ल्यू) क्षेत्रफल के साथ आपातकालीन या अस्थायी राख कुंड की अनुमति दी जा सकती है। राख के तालाब या डाइकों का तकनीकी विनिर्देश, केन्द्रीय विद्युत प्राधिकरण (सीईए) के परामर्श से केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा बनाए गए दिशानिर्देशों के अनुसार होगा और ये दिशानिर्देश राख के कुंड या डाइक के संबंध में इसकी सुरक्षा, पर्यावरणीय प्रदूषण, उपलब्ध प्रमात्रा, निपटान का तरीका, निपटान में जल की खपत या संरक्षण, राख जल पुनर्चक्रण और ग्रीन बेल्ट आदि के वार्षिक प्रमाणन के लिए कार्यविधि भी निर्धारित करेंगे और इस अधिसूचना के प्रकाशन की तारीख से तीन महीनों के भीतर प्रस्तुत किए जाएंगे।
- (7) प्रत्येक कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्र यह सुनिश्चित करेगा कि राख की लदाई, उतराई, ढुलाई, भंडारण और निपटान पर्यावरणीय दृष्टि से अनुकूल रीति से किया गया है और वायु और जल प्रदूषण की रोकथाम के लिए सभी ऐहितयात किए गए हैं और इस संबंध में स्थिति की सूचना इस अधिसूचना में संलग्न अनुबंध में संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) को दी जाएगी।
- (8) प्रत्येक कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र, संस्थापित क्षमता पर आधारित राख के कम से कम 16 घंटों के भंडारण के लिए समर्पित शुष्क फ्लाई राख साइलोस प्रतिष्ठापित करेगा, जिनके पास पृथक पहुंच मार्ग होंगे, जिससे कि राख पहुंचाने के कार्य को सुगम बनाया जा सके। इसकी सूचना संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) को उपाबंध में दी जाएगी और केन्द्रीय प्रदूषण नियंत्रण

बोर्ड (सीपीसीबी) या राज्य केन्द्रीय प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति द्वारा समय-समय पर निरीक्षण किया जाएगा।

- (9) प्रत्येक कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र (जिसके अंतर्गत कैप्टिव या सह उत्पादन केन्द्र भी है या दोनों), वास्तविक उपयोगकर्ता (उपयोगकर्ताओं) के हित के लिए केन्द्रीय प्रदूषण नियंत्रण बोर्ड के वेब पोर्टल या मोबाईल फोन एप्प का लिंक उपलब्ध कराकर ताप विद्युत संयंत्र के पास राख की उपलब्धता के वास्तविक आंकड़े प्रदान करेगा।
- (10) राख के 100 प्रतिशत उपयोग का वैधानिक दायित्व, जहां भी लागू हो, विधि में बदलाव के रूप में माना जाएगा।

ख. राख के उपयोग के प्रयोजनार्थ, उत्तरवर्ती उप पैराग्राफ लागू होंगे :-

- (1) ऐसे सभी अभिकरण (सरकारी, अर्द्धसरकारी और निजी), जो सड़क बिछाने, सड़क और फ्लाई ओवर के किनारों, तटीय जिलों में तटरेखा की सुरक्षा संरचनाओं और लिग्नाइट या कोयला आधारित ताप विद्युत संयंत्र से 300 किमी के भीतर बांधों जैसे निर्माण संबंधी कार्यकलापों में लगे हुए हैं, इन कार्यकलापों में अनिवार्य रूप से राख का उपयोग करेंगे :

परंतु इसको परियोजना स्थल पर निशुल्क पहुंचाया जाए और परिवहन लागत, ऐसे कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों द्वारा वहन की जाए।

परंतु यह और कि ताप विद्युत संयंत्र पारस्परिक सहमत हुई शर्तों के अनुसार राख की लागत और परिवहन के लिए शुल्क ले सकता है उस मामले में जहां ताप विद्युत संयंत्र अन्य माध्यम से राख का निपटान करने में समर्थ है और ये अभिकरण इसके लिए प्रार्थना कर सकते हैं और बिना लागत और बिना परिवहन शुल्क के राख उपलब्ध कराने के प्रावधान तभी लागू होंगे यदि उसके लिए ताप विद्युत संयंत्र उस निर्माण अभिकरण को नोटिस जारी करता है।

- (2) उक्त कार्यकलापों में राख का उपयोग भारतीय मानक ब्यूरो, भारतीय रोड कांग्रेस, केन्द्रीय भवन अनुसंधान संस्थान, रूड़की, केन्द्रीय सड़क अनुसंधान संस्थान, दिल्ली, केन्द्रीय लोक निर्माण विभाग, राज्य लोक निर्माण विभागों और अन्य केन्द्रीय और राज्य सरकार के अभिकरणों द्वारा निर्धारित किए गए विनिर्देशों और दिशानिर्देशों के अनुसार किया जाएगा।
- (3) तापीय विद्युत संयंत्र की 300 किलोमीटर की परिधि के भीतर अवस्थित सभी खानों के लिए विस्तारित उत्पादक उत्तरदायित्व (ईपीआर) के तहत खुली आवर्त खानों में राख का पृष्ठ भंडारण करना या अधिक भार के ढेरों के साथ राख का मिश्रण करना बाध्यकारी होगा। सभी खान के स्वामी या प्रचालक (चाहे सरकारी, सार्वजनिक और निजी क्षेत्र के हो) कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्रों से तीन सौ किलोमीटर (सड़क द्वारा) के भीतर, महानिदेशक, खान सुरक्षा (डीजीएमएस) के दिशानिर्देशों के अनुसार ओवर बर्डन के बाह्य निक्षेप खान की बैकफिलिंग अथवा स्टोर्विंग (प्रचालित या छोड़ी गई खानों, जैसा भी मामला हो) के लिए उपयोग की गई सामग्रियों के भार-दर-भार के आधार पर कम से कम 25 प्रतिशत राख को मिश्रित करने के लिए उपाय करेंगे :

परंतु ऐसे तापीय विद्युत केन्द्र निःशुल्क राख प्रदान करके और परिवहन की लागत को वहन करके या पारस्परिक सहमत हुई शर्तों पर लिए गए निर्णय के अनुसार लागत या परिवहन व्यवस्था करके राख की अपेक्षित मात्रा की उपलब्धता को सुकर बनायेंगे और खानों के खाली स्थानों और ढेरों में अधिकभार के साथ राख को मिश्रित करना, सृजित अधिभार के लिए इस अधिसूचना के प्रकाशन की तिथि से लागू होगा और उक्त कार्यकलापों में राख का उपयोग, केन्द्रीय प्रदूषण नियंत्रण बोर्ड, महानिदेशक खान सुरक्षा और भारतीय खदान ब्यूरो द्वारा निर्धारित दिशानिर्देशों के अनुसार किया जाएगा।

स्पष्टीकरण :- इस उप-पैरा के प्रयोजन के लिए यह भी स्पष्ट किया जाता है कि लागत मुक्त राख और निःशुल्क परिवहन के उपबंध केवल तभी लागू होंगे यदि ताप विद्युत संयंत्र इसके लिए खान मालिक को नोटिस देते हैं और अधिभार वाले ढेर के साथ मिश्रित करने और खान में खाली स्थान को भरने के लिए राख के 25 प्रतिशत हिस्से के उपयोग का अधिदेश तब तक लागू नहीं होगा जब तक कि ताप विद्युत संयंत्र द्वारा खान मालिक को नोटिस न दिया गया हो।

- (5) (i) सभी खान मालिकों को खान में खाली स्थानों में राख को समायोजित करने के लिए खान बंद योजना (प्रगामी और अंतिम) तैयार करनी होगी और खान में खाली स्थानों में राख के निपटान और अधिभार वाले ढेर के साथ राख को मिश्रित करने के लिए खान योजनाओं को संबंधित प्राधिकारी अनुमोदित करेगा। पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय द्वारा ताप विद्युत संयंत्रों और कोयला खदानों की पर्यावरणीय मंजूरी की अपेक्षा से छूट देने के साथ-साथ ऐसे निपटान के लिए अपनाए जाने वाले दिशानिर्देशों के संबंध में तारीख 28 अगस्त, 2019 को दिशानिर्देश जारी किए गए।
- (ii) मंत्रालय, केन्द्रीय प्रदूषण नियंत्रण बोर्ड, महानिदेशक, खान सुरक्षा (डीजीएमएस) और भारतीय खान ब्यूरो (आईबीएम) के साथ परामर्श करके, खानों में खाली स्थानों में राख के निपटान करने तथा अधिभार वाले ढेरों में इसे मिश्रित करना सुगम बनाने के लिए समय-समय पर आगे भी दिशानिर्देश जारी कर सकता है और यह खान मालिकों की जिम्मेदारी होगी कि वे ऐसी खानों को अभिज्ञात करने की तिथि से एक वर्ष के भीतर विभिन्न विनियामक प्राधिकरणों द्वारा जारी की गई अनुमतियों में आवश्यक संशोधन या परिवर्तन प्राप्त करेंगे।
- (6) (i) पर्यावरणीय प्रदूषण के संदर्भ में सुरक्षा, व्यवहार्यता (आर्थिक व्यवहार्यता नहीं) और पहलुओं की जांच सहित राख से खान में खाली स्थान को वापस भरने/अधिभार वाले ढेर के साथ राख को मिश्रित करने के लिए खानों की पहचान करने के लिए पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, विद्युत मंत्रालय, खान मंत्रालय, कोयला मंत्रालय, महानिदेशक खान सुरक्षा और भारतीय खान ब्यूरो से प्रतिनिधियों को शामिल करते हुए अध्यक्ष, केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) की अध्यक्षता में एक समिति का गठन किया जाएगा और यह समिति पणधारी मंत्रालयों या विभागों के लिए अभिज्ञात खानों (भूमिगत और खुली, दोनों) के संबंध में तैयार की गई तिमाही रिपोर्टों को अद्यतन करेगी और यह समिति, इस अधिसूचना के प्रकाशन के तुरंत पश्चात उपयुक्त खानों की पहचान करना आरंभ करेगी।
- (ii) ताप विद्युत संयंत्र या खानें, उपरोक्त अनुसार अधिदेशित उपयोग लक्ष्यों को पूरा करने के लिए उपर्युक्त समिति द्वारा पहचान किए जाने तक राख के निपटान हेतु प्रतीक्षा नहीं करेंगी।
- (7) राख से निचले क्षेत्र को भरने का कार्य, अनुमोदित परियोजनाओं के लिए राज्य प्रदूषण नियंत्रण बोर्ड की पूर्व अनुमति से और केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा निर्धारित दिशा-निर्देशों के अनुसार किया जाएगा और राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति द्वारा अनुमोदित स्थलों, अवस्थान, क्षेत्र और अनुमत मात्रा को अपनी वेबसाइट पर प्रतिवर्ष प्रकाशित किया जाएगा।
- (8) केन्द्रीय प्रदूषण नियंत्रण बोर्ड, संगत पणधारी के साथ मिलकर, राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) द्वारा अनुमति प्रदान करने के लिए समयबद्ध ऑनलाइन आवेदन प्रक्रिया प्रस्तुत करने के साथ-साथ इस अधिसूचना के अधीन परिकल्पित सभी प्रकार के कार्यकलापों के लिए एक वर्ष के भीतर दिशानिर्देश प्रस्तुत करेगा।
- (9) कोयला या लिग्नाइट आधारित तापीय ऊर्जा संयंत्र से तीन सौ किलोमीटर के दायरे में स्थित सभी भवन निर्माण परियोजनाएं (केंद्रीय, राज्य और स्थानीय प्राधिकरणों सरकारी उपक्रमों, अन्य सरकारी अभिकरणों तथा सभी निजी अभिकरणों) राख की ईटों, टाइल्स, धातुमल राख अथवा अन्य राख आधारित उत्पादों का उपयोग करेंगी बशर्ते कि वे वैकल्पिक उत्पादों की कीमत से अधिक कीमत पर उपलब्ध न हो।
- (10) राख आधारित उत्पादों के विनिर्माण और ऐसे उत्पादों में राख के उपयोग में भारतीय मानक ब्यूरो, भारतीय सड़क कांग्रेस और केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा निर्धारित विनिर्देशों और दिशानिर्देशों की अनुपालना होगी।

ग. गैर-अनुपालन के लिए पर्यावरणीय प्रतिकर .-

- (1) तीन वर्ष के चक्र के प्रथम दो वर्षों में, यदि कोयला या लिग्नाइट आधारित तापीय ऊर्जा संयंत्र (कैप्टिव और/ या सह-उत्पादक स्टेशनों या दोनों सहित) ने कम-से-कम 80 प्रतिशत राख (फ्लाई-राख और बॉटम-राख) उपयोग नहीं की है तो ऐसे गैर-अनुपालन ताप विद्युत संयंत्रों पर प्रस्तुत की गई वार्षिक रिपोर्टों के आधार पर वित्तीय वर्ष के

अंत में अप्रयुक्त राख पर 1000 रुपए प्रति टन की दर से पर्यावरणीय प्रतिकर लगाया जाएगा और यदि यह तीन वर्ष के चक्र के तीसरे वर्ष में 100 प्रतिशत राख का उपयोग करने में असमर्थ रहता है, तो वह अप्रयुक्त मात्रा पर 1000 रुपए प्रति टन की दर से पर्यावरणीय प्रतिकर के भुगतान का पात्र होगा, जिस पर पहले पर्यावरणीय प्रतिकर नहीं लगायी गयी है।

परंतु पर्यावरणीय प्रतिकर को पैरा क के उप-पैरा (4) में उल्लिखित विभिन्न उपयोगी श्रेणियों के अनुसार प्रथम अनुपालन चक्र के अंतिम वर्ष के अंत में अनुमान लगाया जाएगा और अधिरोपित किया जाएगा।

- (2) अधिकारियों द्वारा एकत्रित पर्यावरणीय प्रतिकर को केन्द्रीय प्रदूषण नियंत्रण बोर्ड के निर्दिष्ट खाते में जमा किया जाएगा।
- (3) लैग्रेसी राख के मामले में, यदि कोयला या लिग्नाइट आधारित तापीय ऊर्जा संयंत्र (कैप्टिव या सह-उत्पादक स्टेशनों या दोनों सहित) ने स्थापित क्षमता पर आधारित उत्पन्न राख का कम-से-कम 20 प्रतिशत (प्रथम वर्ष के लिए), 35 प्रतिशत (द्वितीय वर्ष के लिए), 50 प्रतिशत (तीसरे से दसवें वर्ष तक) उपयोग के बराबर लक्ष्य प्राप्त नहीं किया है तो उस वित्तीय वर्ष के दौरान अप्रयुक्त लैग्रेसी राख पर 1000 रुपए प्रति टन की दर से पर्यावरणीय प्रतिकर लगाया जाएगा और यदि 10 वर्ष के अंत में लैग्रेसी राख का उपयोग नहीं किया जाता है तो 1000 रुपए प्रति टन की दर से शेष अप्रयुक्त मात्रा पर पर्यावरणीय प्रतिकर लगाया जाएगा जिस पर पहले पर्यावरणीय प्रतिकर नहीं लगाया गया है।
- (4) अधिकृत खरीददारों या उपभोक्ता अभिकरणों तक राख भेजने की जिम्मेदारी परिवहकों या वाहन मालिक की जिम्मेदारी है और यदि इसका अनुपालन नहीं किया जाता है, तो अनधिकृत उपयोगकर्ताओं अथवा गैर-अधिकृत उपयोगकर्ताओं को ऐसी मात्रा गलत तरीके से वितरित करने पर 1500 रुपए प्रति टन की दर से पर्यावरणीय प्रतिकर लगायी, इसके अतिरिक्त राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) द्वारा गैर अनुपालनकर्ता परिवहकों पर अभियोजन लागू होगा।
- (5) इस अधिसूचना के पैरा ख में विहित पर्यावरण अनुकूल तरीके में राख के उपयोग की जिम्मेदारी खरीददार या उपभोगकर्ता एजेंसियों की है और ऐसा नहीं करने पर केन्द्रीय प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) द्वारा 1500 रुपए प्रति टन की दर से पर्यावरणीय प्रतिकर लगाया जाएगा।
- (6) यदि उपयोगकर्ता अधिकरण पैरा ख के अधीन निर्धारित सीमा तक अथवा पैरा घ के उप-पैरा (1) के अधीन, दिए गए नोटिस के माध्यम से सूचित की गई सीमा, इनमें से जो भी कम हो, तक राख का उपयोग नहीं करती है, वे अतिरिक्त राख की मात्रा का 1500 रुपए प्रति टन की दर से भुगतान करने के लिए उत्तरदायी होंगी।
परंतु भवन निर्माण के संबंध में पर्यावरणीय प्रतिकर निर्मित क्षेत्र के 75 रुपये प्रति वर्ग फीट की दर से वसूल किया जाएगा।
- (7) (i) ताप विद्युत संयंत्रों अन्य बकायादारों से केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा लगायी गई का पर्यावरणीय प्रतिकर उपयोग अप्रयुक्त राख के सुरक्षित निपटान हेतु किया जाएगा और राख आधारित उत्पादों सहित राख के उपयोग के संबंध में और अधिक अनुसंधान करने के लिए भी निधि का उपयोग किया जा सकता है।
(ii) अप्रयुक्त मात्रा पर लगाए गए पर्यावरणीय प्रतिकर के पश्चात भी राख के उपयोग का उत्तरदायित्व ताप विद्युत संयंत्रों की होगी और यदि पश्चातवती चक्रों में पर्यावरणीय प्रतिकर लगाने के पश्चात ताप विद्युत संयंत्र, किसी विशेष चक्र की राख के उपयोग के लक्ष्य को प्राप्त करता है तो अगले चक्र के दौरान अप्रयुक्त मात्रा पर एकत्र की गई पर्यावरणीय प्रतिकर में 10 प्रतिशत कटौती के पश्चात उक्त रकम ताप विद्युत संयंत्र को वापस कर दी जाएगी और पश्चातवती चक्रों में राख के उपयोग के मामले में एकत्र की गई पर्यावरणीय प्रतिकर की 20 प्रतिशत, 30 प्रतिशत और उसी क्रम में कटौती की जानी है।

घ. राख या राख आधारित उत्पादों की आपूर्ति हेतु प्रक्रिया .—

- (1) ताप विद्युत संयंत्रों के स्वामी अथवा राख की ईंटों या टाईल्स या धातुमल आधारित राख के विनिर्माता उन व्यक्तियों या अभिकरणों को लिखित सूचना देंगे जो बिक्री या परिवहन या दोनों के लिए प्रस्तुत राख या राख आधारित उत्पादों के उपयोग के लिए उत्तरदायी हैं।
- (2) ऐसे व्यक्ति या उपयोगकर्ता अभिकरणों जिन्हें ताप विद्युत संयंत्रों के स्वामी द्वारा या राख की ईंटों या टाईल्स या धातुमल आधारित राख के उत्पादकों द्वारा सूचना दी गई है, यदि वे पहले ही राख या राख उत्पादों के उपयोग के प्रयोजन से अन्य अभिकरणों के साथ जुड़े हुए हैं, यदि वे किसी भी राख/राख उत्पादों का उपयोग नहीं कर सकते हैं अथवा कम मात्रा का उपयोग कर सकते हैं, तदनुसार ताप विद्युत संयंत्र को सूचित करेंगे।

ड. प्रवर्तन, निगरानी, लेखा परीक्षा और प्रतिवेदन करना

- (1) केंद्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी), उपबंधों के अनुपालना सुनिश्चित करने के लिए प्रवर्तन और निगरानी प्राधिकरण होंगे। सीपीसीबी या एसपीसीबी या पीसीसी तिमाही आधार पर राख के उपयोग की निगरानी करेंगे और सीपीसीबी इस प्रयोजन के लिए अधिसूचना की प्रकाशन की तारीख से छः माह के भीतर एक पोर्टल विकसित करेगा। संबंधित जिला अधिकारी के पास इस अधिसूचना के उपबंधों को लागू करने और निगरानी करने के लिए समवर्ती अधिकारिता होगी।
- (2) (i) ताप विद्युत संयंत्र, राख उत्सर्जन और उपयोग से संबंधित मासिक सूचना वेब पोर्टल पर अगले महीने की 5 तारीख तक अपलोड करेगा। कोयला या लिग्नाइट आधारित ताप ऊर्जा संयंत्रों द्वारा केंद्रीय प्रदूषण नियंत्रण बोर्ड, संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति (पीसीसी), केंद्रीय विद्युत प्राधिकरण (सीईए) और पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय के संबंधित एकीकृत क्षेत्रीय कार्यालयों को इस अधिसूचना के उपबंधों के अनुपालन संबंधी सूचना उपलब्ध कराते हुए वार्षिक कार्यान्वयन रिपोर्ट प्रत्येक वर्ष (1 अप्रैल से 31 मार्च तक की अवधि के लिए) अप्रैल माह के 30वें दिन तक प्रस्तुत की जाएगी। सीपीसीबी और सीईए द्वारा सभी ताप विद्युत संयंत्रों द्वारा प्रस्तुत वार्षिक रिपोर्टों का समेकन किया जाएगा और उसे पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को 31 मई तक प्रस्तुत किया जाएगा।
- (ii) सभी अन्य उपयोगकर्ता अधिकरण पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय या राज्य स्तरीय पर्यावरण प्रभाव आकलन प्राधिकरण (एसईआईए) द्वारा जारी पर्यावरणीय मंजूरी (ईसी) अथवा राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) द्वारा जारी संचालन की सहमति (सीटीओ), जो भी लागू हो, की अनुपालना रिपोर्ट में इस अधिसूचना में आज्ञापकता के अनुसार राख के उपभोग या उपयोग या निस्तारण तथा राख आधारित उत्पादों के उपयोग संबंधी सूचना प्रस्तुत करेंगे। केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) या राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) अधिसूचना के उपबंधों के प्रभावी कार्यान्वयन की समीक्षा करने हेतु ताप विद्युत संयंत्रों के अतिरिक्त अन्य सभी अधिकरणों की राख उपयोग की वार्षिक रिपोर्ट प्रकाशित करेंगे।
- (3) इस अधिसूचना के उपबंधों की निगरानी और कार्यान्वयन के प्रयोजन के लिए केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) की अध्यक्षता में एक समिति का गठन किया जाएगा जिसके सदस्य विद्युत मंत्रालय, कोयला मंत्रालय, खनन मंत्रालय, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, सड़क परिवहन और राजमार्ग मंत्रालय और भारी उद्यम विभाग से होने के साथ-साथ समिति के अध्यक्ष द्वारा नामित किए जाने वाले कोई संबंधित पणधारी होंगे। यह समिति संगत पणधारी को आमंत्रित कर सकती है। यह समिति इस अधिसूचना के उपबंधों के प्रभावी और दक्ष कार्यान्वयन के लिए सिफारिशें कर सकती है। यह समिति छः माह में कम से कम एक बार एक बैठक करेगी और वार्षिक कार्यान्वयन रिपोर्टों की समीक्षा करेगी और यह समिति, इस अधिसूचना द्वारा आज्ञापक किए गए अनुसार छः महीनों में कम से कम एक बार संगत पणधारी (को) को आमंत्रित करके राख के उपयोग की निगरानी करने के लिए पणधारी से साथ परामर्शदात्री बैठकें आयोजित करेगी। यह समिति पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय (एमओईएफसीसी) को छः मासिक रिपोर्ट प्रस्तुत करेगी।

- (4) ताप विद्युत संयंत्रों और राख के उपयोगकर्ताओं या राख आधारित उत्पादों के विनिर्माताओं के बीच के विवाद का समाधान करने के प्रयोजन से राज्य सरकारें या संघ राज्यक्षेत्र की सरकारें इस अधिसूचना के प्रकाशन की तारीख से तीन माह के भीतर राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) की अध्यक्षता में एक समिति का गठन करेंगी जिसमें विद्युत विभाग के प्रतिनिधि और एक प्रतिनिधि उस विभाग का होगा, जो विवाद वाले संबंधित अभिकरण का कार्य देख रहे हैं।
- (5) केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) द्वारा प्राधिकृत लेखा परीक्षकों द्वारा ताप विद्युत संयंत्रों और उपयोगकर्ता अभिकरणों द्वारा किए गए राख के निपटान की अनुपालन लेखा परीक्षा संचालित की जाएगी और लेखा परीक्षा की रिपोर्ट प्रत्येक वर्ष 30 नवम्बर तक केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) को प्रस्तुत की जाएगी। केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) लेखा परीक्षा की रिपोर्ट प्राप्त होने के पंद्रह दिनों के भीतर अनुपालन न करने वाले ताप विद्युत संयंत्रों के विरुद्ध कार्रवाई प्रारंभ करेंगे।

[फा. सं. एचएसएम-9/1/2019-एचएसएम]

नरेश पाल गंगवार, संयुक्त सचिव

उपाबंध

31 मई तक अथवा उससे पहले प्रस्तुत की जाने वाली राख संबंधी उपबंधों की अनुपालन रिपोर्ट (01 अप्रैल से 31 मार्च की अवधि के लिए)।

क्र.सं.	ब्यौरा	
1.	विद्युत संयंत्र का नाम	
2.	कंपनी का नाम	
3.	जिला	
4.	राज्य	
5.	पत्राचार के लिए डाक का पता :	
6.	ई-मेल :	
7.	विद्युत संयंत्र की संस्थापित क्षमता (मेगा वॉट) :	
8.	संयंत्र लोड फैक्टर (पीएलएफ) :	
9.	उत्पादित यूनिटों की संख्या (एमडब्ल्यूएच) :	
10.	विद्युत संयंत्र के अंतर्गत कुल क्षेत्र (हेक्टेयर) (राख कुंडों के अधीन क्षेत्र सहित) :	
11.	रिपोर्टिंग की अवधि के दौरान कोयला खपत की मात्रा (प्रति वर्ष मीट्रिक टन) :	
12.	औसत राख सामग्री प्रतिशतता में (%) :	
13.	रिपोर्टिंग की अवधि के दौरान वर्तमान में उत्पादित राख की मात्रा (प्रति वर्ष मीट्रिक टन) : फ्लाई राख (प्रति वर्ष मीट्रिक टन) : बॉटम राख (प्रति वर्ष मीट्रिक टन) :	
14.	ड्राई फ्लाई राख भंडारण गड्ढा (गड्ढों) की क्षमता (मीट्रिक टन) :	
15.	रिपोर्टिंग की अवधि के दौरान वर्तमान में उत्पादित राख के उपयोग का ब्यौरा: (क) रिपोर्टिंग की अवधि के दौरान वर्तमान में उपयोग की गई राख की	

	कुल मात्रा (एमटीपीए) : (ख) उपयोग की गई फ्लाई राख की मात्रा (एमटीपीए) : - फ्लाई-एश आधारित उत्पाद (ईट या ब्लॉक या टाइल्स या फाइबर सीमेंट शीट या पाइप या बोर्ड/पैनल) : - सीमेंट विनिर्माण : - रेडी मिक्स कंक्रीट : - राख और जीओ-पॉलिमर आधारित निर्माण सामग्री : - सिंटर्ड या कोल्ड बॉन्डेड राख एग्रीगेट का निर्माण : - सड़कों, सड़क और फ्लाई ओवर के पुश्तों का निर्माण : - बांधों का निर्माण : - निम्न भू-क्षेत्र का भराव : - खनिज क्षेत्रों का भराव : - अधिभार वाले डम्पों में उपयोग : - कृषि : - तटीय जिलों में तटरेखा सुरक्षा संरचनाओं का निर्माण : - अन्य देशों को राख का निर्यात : - अन्य (कृपया विनिर्दिष्ट करें) : (ग) उपयोग किए गए तल के राख की मात्रा (एमटीपीए) : - फ्लाई-एश आधारित उत्पाद (ईट या ब्लॉक या टाइल्स या फाइबर सीमेंट शीट या पाइप या बोर्ड या पैनल) : - सीमेंट विनिर्माण : - रेडी मिक्स कंक्रीट : - राख और जीओ-पॉलिमर आधारित निर्माण सामग्री : - सिंटर्ड या कोल्ड बॉन्डेड राख एग्रीगेट का निर्माण : - सड़कों, सड़क और फ्लाईओवर के पुश्तों का निर्माण : - बांधों का निर्माण : - निम्न भू-क्षेत्र का भराव : - खनिज क्षेत्रों का भराव : - अधिभार वाले डम्पों में उपयोग : - कृषि : - तटीय जिलों में तटरेखा सुरक्षा संरचनाओं का निर्माण : - अन्य देशों को राख का निर्यात : - अन्य (कृपया विनिर्दिष्ट करें) : रिपोर्टिंग की अवधि के दौरान वर्तमान में अप्रयुक्त राख की कुल मात्रा (एमटीपीए) :	
16.	रिपोर्टिंग की अवधि के दौरान वर्तमान में उत्पादित राख का प्रतिशतता उपयोग (%) :	
17.	राख कुंडों में राख के निपटान का ब्यौरा क) तारीख 31 मार्च तक (रिपोर्टिंग की अवधि को छोड़कर) राख कुण्ड (कुण्डों) में निपटान किए गए राख की कुल मात्रा (मीट्रिक टन):	

	ख) रिपोर्टिंग की अवधि के दौरान राख कुण्ड (कुण्डों) में निपटान किए गए राख की मात्रा (मीट्रिक टन): ग) रिपोर्टिंग की अवधि के दौरान राख कुण्डों में गारा निस्सरण हेतु खपत हुए जल की कुल मात्रा (मी³): घ) राख कुण्डों की कुल संख्या: (i) सक्रिय: (ii) खाली किए गए (पुनः भरा जाना है) (iii) पुनः भरे गए: ड.) राख कुण्डों के अधीन कुल क्षेत्र (हेक्टेयर):	
18.	अलग-अलग राख कुण्ड का ब्यौरा राख कुण्ड 1,2 आदि (यदि राख कुण्डों की संख्या एक से अधिक हो, तो कृपया निम्नलिखित ब्यौरा अलग से उपलब्ध कराएं) क) स्थिति: निर्माणाधीन या सक्रिय या खाली किया गया या पुनः भरा गया ख) राख कुण्ड में राख का निपटान शुरू करने की तारीख/महीना/वर्ष या महीना/वर्ष): ग) राख कुण्ड की क्षमता पूर्ण किए जाने के पश्चात् उसमें राख निपटान रोकने की तारीख (तारीख/महीना/वर्ष या महीना/वर्ष): (सक्रिय राख कुण्डों के लिए लागू नहीं) ग) क्षेत्र (हेक्टेयर): घ) डाइक की ऊंचाई (मी.): घ) आयतन (मी³): ड.) तारीख 31 मार्च तक निपटान किए गए राख की मात्रा (मीट्रिक टन): च) उपलब्ध आयतन का प्रतिशत (%) और आगे निपटान किए जा सकने वाले राख की मात्रा (मीट्रिक टन): छ) राख कुण्ड के भरे जाने की अनुमानित अवधि (वर्षों और महीनों की संख्या): ड.) निर्देशांक (अक्षांश और देशान्तर): (कृपया न्यूनतम 4 निर्देशांकों को विनिर्दिष्ट करें) ज) राख कुण्ड में की गई लाइनिंग का प्रकार: एचडीपीई लाइनिंग या एलडीपीई लाइनिंग या क्ले लाइनिंग या कोई लाइनिंग नहीं छ) निपटान की विधि: शुष्क निपटान या नम गारा (नम गारा के मामले में कृपया विनिर्दिष्ट करें कि क्या एचसीएसडी या एमसीएसडी या एलसीएसडी है) ज) राख का अनुपात: गारा मिश्रण में जल (1:____): झ) संस्थापित और कार्यशील राख जल पुनर्चक्रण प्रणाली (एडब्ल्यूआरएस): हां या नहीं ञ) जमीन के अंदर या जल निकाय में राख कुण्ड से निस्सरित अपशिष्ट जल की मात्रा (मी³): ट) डाइक की स्थिरता का अध्ययन कराए जाने की पिछली तारीख और उस संगठन का नाम जिसने अध्ययन किया: ठ) लेखा-परीक्षा किए जाने की पिछली तारीख और उस संगठन का नाम जिसने लेखा-परीक्षा की:	
19.	उपयोग किए गए पुराने राख की मात्रा (एमटीपीए): i. फ्लाई-एश आधारित उत्पाद (ईट या ब्लॉक या टाइल्स या फाइबर	

	सीमेंट शीट या पाइप या बोर्ड या पैनल):			
	ii. सीमेंट विनिर्माण:			
	iii. रेडी मिक्स कंक्रीट:			
	iv. राख और जीओ-पॉलिमर आधारित निर्माण सामग्री:			
	v. सिंटर्ड या कोल्ड बॉन्डेड राख एग्रीगेट का निर्माण:			
	vi. सड़कों, सड़क और फ्लाई ओवर के पुश्तों का निर्माण:			
	vii. बांधों का निर्माण:			
	viii. निम्न भू-क्षेत्र का भराव:			
	ix. खनिज क्षेत्रों का भराव:			
	x. अधिभार वाले डम्पों में उपयोग:			
	xi. कृषि:			
	xii. तटीय जिलों में तटरेखा सुरक्षा संरचनाओं का निर्माण:			
	xiii. अन्य देशों को राख का निर्यात			
	xiv. अन्य (कृपया विनिर्दिष्ट करें):			
20.	सार :			
	व्यौरा	सृजित मात्रा (एमटीपी)	उपयोग की गई मात्रा (एमटीपी) और (%)	शेष मात्रा (एमटीपी)
	रिपोर्टिंग की अवधि के दौरान राख			
	पुरानी राख			
	कुल			
21.	कोई अन्य सूचना : वार्षिक अनुपालन रिपोर्ट, और विद्युत संयंत्रों और राख कुण्डों की शेष फाइलों की सॉफ्ट कॉपी ई-मेल:- moefcc-coalash@gov.in पर भेजी जाए।			
22.	प्राधिकृत हस्ताक्षरकर्ता के हस्ताक्षर			

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 31st December, 2021

S.O. 5481(E).—Whereas by notification of the Government of India in the erstwhile Ministry of Environment and Forests *vide* S.O.763 (E), dated the 14th September, 1999, as amended from time to time, the Central Government, issued directions for restricting the excavation of top soil for manufacturing of bricks and promoting the utilisation of fly ash in the manufacturing of building materials and in construction activity within a specified radius of three hundred kilometres from the coal or lignite based thermal power plants;

And whereas, to implement the aforesaid notification more effectively based on the polluter pays principle (PPP) thereby ensuring 100 per cent utilisation of fly ash by the coal or lignite based thermal power plants and for the sustainability of the fly ash management system, the Central Government reviewed the existing notification; and whereas environmental compensation needs to be introduced based on the polluter pays principle;

And whereas, there is a need to conserve top soil by promoting manufacture and mandating use of ash based products and building materials in the construction sector;

And whereas, there is a need to conserve top soil and natural resources by promoting utilisation of ash in road laying, road and flyover embankments, shoreline protection measures, low lying areas of approved projects, backfilling of mines, as an alternative for filling of earthen materials;

And whereas, it is necessary to protect the environment and prevent the dumping and disposal of fly ash discharged from coal or lignite based thermal power plants on land;

And whereas, in the said notification the phrase 'ash', has been used which includes both fly ash as well as bottom ash generated from the Coal or Lignite based thermal power plants;

And whereas, the Central Government intends to bring out a comprehensive framework for ash utilisation including system of environmental compensation based on polluter pays principle;

And whereas, a draft notification on ash utilisation by coal or lignite thermal power plants in supersession of the notification of the Government of India, Ministry of Environment and Forests published in the Gazette of India, Extra Ordinary part II, section 3, sub-section (i) *vide* S.O.763 (E), dated the 14th September, 1999, by notification in exercise of the powers conferred under sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule (5) of the Environment (Protection) Rules, 1986, was published in the Gazette of India, Extraordinary, Part II, section 3, sub-section (i), *vide* G.S.R. 285(E), dated the 22nd April, 2021 inviting objections and suggestions from all persons likely to be affected thereby before the expiry of sixty days from the date on which copies of the Gazette containing the said draft provisions were made available to the public;

And, whereas all the objections and suggestions received from all persons likely to be affected thereby in respect of the said draft notification have been duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule (5) of the Environment (Protection) Rules, 1986, and in supersession of the Notification S.O.763 (E), dated the 14th September, 1999 except as respect things done or omitted to be done before such supersession, the Central Government hereby issues the following notification on ash utilisation from coal or lignite thermal power plants which shall come into force on the date of the publication of this notification, namely:-

A. Responsibilities of thermal power plants to dispose fly ash and bottom ash.—

- (1) Every coal or lignite based thermal power plant (including captive or co-generating stations or both) shall be primarily responsible to ensure 100 per cent utilisation of ash (fly ash, and bottom ash) generated by it in an eco-friendly manner as given in sub-paragraph (2);
- (2) The ash generated from coal or lignite based thermal power plants shall be utilised only for the following eco-friendly purposes, namely:-
 - (i) Fly ash based products viz. bricks, blocks, tiles, fibre cement sheets, pipes, boards, panels;
 - (ii) Cement manufacturing, ready mix concrete;
 - (iii) Construction of road and fly over embankment, Ash and Geo-polymer based construction material;
 - (iv) Construction of dam;
 - (v) Filling up of low lying area;
 - (vi) Filling of mine voids;
 - (vii) Manufacturing of sintered or cold bonded ash aggregate;
 - (viii) Agriculture in a controlled manner based on soil testing;
 - (ix) Construction of shoreline protection structures in coastal districts;

- (x) Export of ash to other countries;
 - (xi) Any other eco-friendly purpose as notified from time to time.
- (3) A committee shall be constituted under the chairmanship of Chairman, Central Pollution Control Board (CPCB) and having representatives from Ministry of Environment, Forest and Climate Change (MoEFCC), Ministry of Power, Ministry of Mines, Ministry of Coal, Ministry of Road Transport and Highways, Department of Agricultural Research and Education, Institute of Road Congress, National Council for Cement and Building Materials, to examine and review and recommend the eco-friendly ways of utilisation of ash and make inclusion or exclusion or modification in the list of such ways as mentioned in Sub-paragraph (2) based on technological developments and requests received from stakeholders. The committee may invite State Pollution Control Board or Pollution Control Committee, operators of thermal power plants and mines, cement plants and other stakeholders as and when required for this purpose. Based on the recommendations of the Committee, Ministry of Environment, Forest and Climate Change (MoEFCC) may publish such eco-friendly purpose.
- (4) Every coal or lignite based thermal power plant shall be responsible to utilise 100 per cent ash (fly ash and bottom ash) generated during that year, however, in no case shall utilisation fall below 80 per cent in any year, and the thermal power plant shall achieve average ash utilisation of 100 per cent in a three years cycle:

Provided that the three years cycle applicable for the first time is extendable by one year for the thermal power plants where ash utilisation is in the range of 60-80 per cent, and two years where ash utilisation is below 60 per cent and for the purpose of calculation of percentage of ash utilisation, the percentage quantity of utilisation in the year 2021- 2022 shall be taken into account as per the table below:

Utilisation percentages of thermal power plants	First compliance Cycle to meet 100 per cent utilisation	Second compliance cycle onwards, to meet 100 per cent utilisation
>80 per cent	3 years	3 years
60-80 per cent	4 years	3 years
<60 per cent	5 years	3 years

Provided further that the minimum utilisation percentage of 80 per cent shall not be applicable to the first year and first two years of the first compliance cycle for the thermal power plants under the utilisation category of 60-80 per cent and <60 per cent, respectively.

Provided also that 20per cent of ash generated in the final year of compliance cycle may be carried forward to the next cycle which shall be utilised in the next three years cycle along with the ash generated during that cycle.

- (5) The unutilised accumulated ash i.e. legacy ash, which is stored before the publication of this notification, shall be utilised progressively by the thermal power plants in such a manner that the utilization of legacy ash shall be completed fully within ten years from the date of publication of this notification and this will be over and above the utilisation targets prescribed for ash generation through current operations of that particular year:

Provided that the minimum quantity of legacy ash in percentages as mentioned below shall be utilised during the corresponding year and the minimum quantity of legacy ash is to be calculated based on the annual ash generation as per installed capacity of thermal power plant.

Year from date of publication	1 st	2 nd	3 rd -10 th
Utilisation of legacy ash (in percentage of Annual ash)	At least 20 per cent	At least 35 per cent	At least 50 per cent

Provided further that the legacy ash utilisation shall not be required where ash pond or dyke has stabilised and the reclamation has taken place with greenbelt or plantation and the concerned State Pollution Control Board shall certify in this regard. Stabilisation and reclamation of an ash pond or dyke including certification by the Central Pollution Control Board (CPCB) or State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) shall be carried out within a year from the date of publication of this notification. The ash remaining in all other ash ponds or dykes shall be utilised in progressive manner as per the above mentioned timelines.

Note: The obligations under sub-paragraph (4) and (5) above for achieving the ash utilisation targets shall be applicable from 1st April, 2022.

- (6) Any new as well as operational thermal power plant may be permitted an emergency or temporary ash pond with an area of 0.1 hectare per Mega Watt (MW). Technical specifications of ash ponds or dykes shall be as per the guidelines of Central Pollution Control Board (CPCB) made in consultation with Central Electricity Authority (CEA) and these guidelines shall also lay down a procedure for annual certification of the ash pond or dyke on its safety, environmental pollution, available volume, mode of disposal, water consumption or conservation in disposal, ash water recycling and greenbelt, etc., and shall be put in place within three months from the date of publication of this notification.
- (7) Every coal or lignite based thermal power plant shall ensure that loading, unloading, transport, storage and disposal of ash is done in an environmentally sound manner and that all precautions to prevent air and water pollution are taken and status in this regard shall be reported to the concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) in Annexure attached to this notification.
- (8) Every coal or lignite based thermal power plant shall install dedicated silos for storage of dry fly ash silos for at least sixteen hours of ash based on installed capacity and it shall be reported upon to the concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) in the Annexure and shall be inspected by Central Pollution Control Board (CPCB) or State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) from time to time.
- (9) Every coal or lignite based thermal power plant (including captive or co-generating stations or both) shall provide real time data on daily basis of availability of ash with Thermal Power Plant (TPP), by providing link to Central Pollution Control Board's web portal or mobile phone App for the benefit of actual user(s).
- (10) Statutory obligation of 100 per cent utilisation of ash shall be treated as a change in law, wherever applicable.

B. For the purpose of utilisation of ash, the subsequent sub-paras shall apply.—

- (1) All agencies (Government, Semi-government and Private) engaged in construction activities such as road laying, road and flyover embankments, shoreline protection structures in coastal districts and dams within 300 kms from the lignite or coal based thermal power plants shall mandatorily utilise ash in these activities:

Provided that it is delivered at the project site free of cost and transportation cost is borne by such coal or lignite based thermal power plants.

Provided further that thermal power plant may charge for ash cost and transportation as per mutually agreed terms, in case thermal power plant is able to dispose the ash through other means and those agencies makes a request for it and the provisions of ash free of cost and free transportation shall be applicable, if thermal power plant serves a notice on the construction agency for the same.

- (2) The utilisation of ash in the said activities shall be carried out in accordance with specifications and guidelines laid down by the Bureau of Indian Standards, Indian Road Congress, Central Building Research Institute, Roorkee, Central Road Research Institute, Delhi, Central Public Works Department, State Public Works Departments and other Central and State Government Agencies.

- (3) It shall be obligatory on all mines located within 300 kilometres radius of thermal power plant, to undertake backfilling of ash in mine voids or mixing of ash with external Overburden dumps, under Extended Producer Responsibility (EPR). All mine owners or operators (Government, Public and Private Sector) within three hundred kilometres (by road) from coal or lignite based thermal power plants, shall undertake measures to mix at least 25 per cent of ash on weight to weight basis of the materials used for external dump of overburden, backfilling or stowing of mine (running or abandoned as the case may be) as per the guidelines of the Director General of Mines Safety (DGMS):

Provided that such thermal power stations shall facilitate the availability of required quantity of ash by delivering ash free of cost and bearing the cost of transportation or cost of transportation arrangement decided on mutually agreed terms and mixing of ash with overburden in mine voids and dumps shall be applicable for the overburden generated from the date of publication of this notification and the utilisation of ash in the said activities shall be carried out in accordance with guidelines laid down by the Central Pollution Control Board, Director General of Mines Safety and Indian Bureau of Mines.

Explanation.- For the purpose of this sub-paragraph, it is also clarified that the provisions of ash free of cost and free transportation shall be applicable, if thermal power plants serve a notice on the mine owner for the same and the mandate of using 25 per cent of ash for mixing with overburden dump and filling up of mine voids shall not be applicable unless a notice is served on the mine owner by thermal power plant.

- (4) (i) All mine owners shall get mine closure plans (progressive and final) to accommodate ash in the mine voids and the concerned authority shall approve mine plans for disposal of ash in mine voids and mixing of ash with overburden dumps. The Ministry of Environment, Forest and Climate Change (MoEFCC) has issued guidelines on 28th August, 2019 regarding exemption of requirement of Environmental Clearance of thermal power plants and coal mines along with the guidelines to be followed for such disposal.

(ii) The Ministry in consultation with Central Pollution Control Board (CPCB), Director General of Mine Safety (DGMS) and Indian Bureau of Mines (IBM) may issue further guidelines time to time to facilitate ash disposal in mine voids and mixing with overburden dumps and it shall be the responsibility of mine owners to get the necessary amendments or modifications in the permissions issued by various regulatory authorities within one year from the date of identification of such mines.

- (5) (i) There shall be a committee headed by Chairperson, Central Pollution Control Board (CPCB) with representatives from Ministry of Environment, Forest and Climate Change, Ministry of Power, Ministry of Mines, Ministry of Coal, Director General of Mine Safety and Indian Bureau of Mines for identification of mines for backfilling of mine voids with ash or mixing of ash with overburden dump including examination of safety, feasibility (not economic feasibility) and aspects of environmental contamination and the committee shall get updated quarterly reports prepared regarding identified mines (both underground and opencast) for the stakeholder Ministries or Departments and the committee shall start identifying the suitable mines immediately after the publication of this notification.

(ii) Thermal power plants or mines shall not wait for disposal of ash till the identification is done by the above mentioned committee, to meet the utilisation targets mandated as above.

- (6) Filling of low lying areas with ash shall be carried out with prior permission of the State Pollution Control Board or Pollution Control Committee for approved projects, and in accordance with guidelines laid down by Central Pollution Control Board (CPCB) and the State Pollution Control Board or Pollution Control Committee (PCC) shall publish approved sites, location, area and permitted quantity annually on its website.
- (7) Central Pollution Control Board after engaging relevant stakeholders, shall put in place the guidelines within one year for all types of activities envisaged under this notification including putting in place time bound online application process for the grant permission by State Pollution Control Boards (SPCBs) or Pollution Control Committees (PCCs).

- (8) All building construction projects (Central, State and Local authorities, Govt. undertakings, other Govt. agencies and all private agencies) located within a radius of three hundred kilometres from a coal or lignite based thermal power plant shall use ash bricks, tiles, sintered ash aggregate or other ash based products, provided these are made available at prices not higher than the price of alternative products.
- (9) Manufacturing of ash based products and use of ash in such products shall be in accordance with specifications and guidelines laid down by the Bureau of Indian Standards, Indian Road Congress, and Central Pollution Control Board.

C. Environmental compensation for non-compliance.—

- (1) In the first two years of a three years cycle, if the coal or lignite based thermal power plant (including captive or co-generating stations or both) has not achieved at least 80 per cent ash (fly ash and bottom ash) utilisation, then such non-compliant thermal power plants shall be imposed with an environmental compensation of Rs. 1000 per ton on unutilised ash during the end of financial year based on the annual reports submitted and if it is unable to utilise 100 per cent of ash in the third year of the three years cycle, it shall be liable to pay an environmental compensation of Rs. 1000 per ton on the unutilised quantity on which environmental compensation has not been imposed earlier:

Provided that the environmental compensation shall be estimated and imposed at the end of last year of the first compliance cycle as per the various utilisation categories as mentioned in sub-paragraph (4) of Para A.

- (2) Environmental compensation collected by the authorities shall be deposited in the designated account of Central Pollution Control Board.
- (3) In case of legacy ash, if the coal or lignite based thermal power plant (including captive or co-generating stations or both) has not achieved utilisation equivalent to at least 20 per cent (for the first year), 35 per cent (for the second year), 50 per cent (for third to tenth year) of ash generated based on installed capacity, an environmental compensation of Rs. 1000 per ton of unutilised legacy ash during that financial year shall be imposed and if the utilization of legacy ash is not completed at the end of 10 years, an environmental compensation of Rs.1000 per ton shall be imposed on the remaining unutilised quantity which has not been imposed earlier.
- (4) It shall be the responsibility of the transporters or vehicle owner to deliver ash to authorised purchaser or user agency and if it is not complied, then an environmental compensation of Rs. 1500 per ton on such quantity as mis-delivered to unauthorised users or non- delivered to authorised users will be imposed besides prosecution of such non-compliant transporters by State Pollution Control Board (SPCB) or Pollution Control Committee (PCC).
- (5) It is the responsibility of the purchasers or user agencies to utilise ash in an eco-friendly manner as laid down at para B of this notification and if it is not complied, then an environmental compensation of Rs. 1500 per ton shall be imposed by State Pollution Control Board (SPCB) or Pollution Control Committee (PCC).
- (6) If the user agencies do not utilise ash to the extent obligated under para B or the extent to which they have been intimated through Notice(s) served under sub-paragraph (1) of para D, whichever is lower, they shall be liable to pay Rs. 1500 per ton of ash for the quantity they fall short off:

Provided that the environmental compensation on building constructions shall be levied at Rs.75/- per square feet of built up area of construction.

- (7) (i) The environmental compensation collected by Central Pollution Control Board from the thermal power plants and other defaulters shall be used towards the safe disposal of the unutilised ash and the fund may also be utilised for advancing research on use of ash including ash based products.

(ii) The liability of ash utilisation shall be with thermal power plants even after imposition of environmental compensation on unutilised quantities and in case thermal power plant achieves the ash utilisation of any

particular cycle after imposition of environmental compensation in subsequent cycles, the said amount shall be returned to thermal power plant after deducting 10 per cent of the environmental compensation collected on the unutilised quantity during the next cycle and deduction of 20 per cent, 30 per cent, and so on, of the environmental compensation collected is to be made in case of utilisation of ash in subsequent cycles.

D. Procedure for supply of ash or ash based products.—

- (1) The owner of thermal power plants or manufacturers of ash bricks or tiles or sintered ash aggregate shall serve written notice to persons or agencies who are liable to utilise ash or ash based products, offering for sale, or transport or both.
- (2) Persons or user agencies who have been served notices by owner of thermal power plants or manufacturers of ash bricks or tiles or sintered ash aggregate, if they have already tied up with other agencies for the purpose of utilisation of ash or ash products, shall inform the thermal power plant accordingly, if they cannot use any ash or ash products or use reduced quantity.

E. Enforcement, Monitoring, Audit and Reporting.—

- (1) The Central Pollution Control Board (CPCB) and the concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) shall be the enforcing and monitoring authority for ensuring compliance of the provisions and shall monitor the utilisation of ash on quarterly basis. Central Pollution Control Board shall develop a portal for the purpose within six months of date of publication of the notification. The concerned District Magistrate shall have concurrent jurisdiction for enforcement and monitoring of the provisions of this notification.
- (2) (i) Thermal power plants shall upload monthly information regarding ash generation and utilisation by 5th of the next month on the web portal. Annual implementation report (for the period 1st April to 31st March) providing information about the compliance of provisions in this notification shall be submitted by the 30th day of April, every year to the Central Pollution Control Board, concerned State Pollution Control Board or Pollution Control Committee (PCC), Central Electricity Authority (CEA), and concerned Integrated Regional Office of Ministry of Environment, Forest and Climate Change by the coal or lignite based thermal power plants. Central Pollution Control Board and Central Electricity Authority shall compile the annual reports submitted by all the thermal power plants and submit to Ministry of Environment, Forest and Climate Change by 31st May.

(ii) All other user agencies shall submit consumption or utilisation or disposal of ash and use of ash based products as mandated in this notification in the compliance report of Environmental Clearance (EC) issued by Ministry of Environment, Forest and Climate Change or State Level Environment Impact Assessment Authority (SEIAA) or Consent to Operate (CTO) issued by State Pollution Control Board (SPCB) or Pollution Control Committee (PCC), whichever is applicable. The Central Pollution Control Board (CPCB) or State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) shall publish annual report of ash utilisation of all other agencies except thermal power plants to review the effective implementation of the provisions of the notification.
- (3) For the purpose of monitoring the implementation of the provisions of this notification, a committee shall be constituted under the Chairperson, Central Pollution Control Board (CPCB), with members from Ministry of Power, Ministry of Coal, Ministry of Mines, Ministry of Environment, Forest and Climate Change, Ministry Road Transportation and Highways, Department of Heavy Industry as well as any concerned stakeholder(s), to be nominated by the Chairman of the committee. The committee may make recommendations for effective and efficient implementation of the provisions of the notification. The committee shall meet at least once in six months and review annual implementation reports and the committee shall also hold stakeholder consultations for monitoring of ash utilisation as mandated by this notification by inviting relevant stakeholder(s) at least once in six months. The committee shall submit the six monthly report to Ministry of Environment, Forest and Climate Change (MoEFCC).

- (4) For the purpose of resolving disputes between thermal power plants and users of ash or manufacturer of ash based products, the State Governments or Union territory administration constitute a Committee within three months from the date of publication of this notification under the Chairman, State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) with representatives from Department of Power, and one representative from the Department which deals with the subject of concerned agency with which dispute is made.
- (5) The compliance audit for ash disposal by the thermal power plants and the user agency shall be conducted by auditors, authorised by Central Pollution Control Board (CPCB) and audit report shall be submitted to Central Pollution Control Board (CPCB) and concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) by 30th November every year. Central Pollution Control Board (CPCB) and concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) shall initiate action against non-compliant thermal power plants within fifteen days of receipt of audit report.

[F. No. HSM-9/1/2019-HSM]

NARESH PAL GANGWAR, Jt. Secy.

AnnexureAsh Compliance Report (for the period 1st April-31st March) to be submitted on or before 31st May.

Sl. No.	Details	
1.	Name of Power Plant	
2.	Name of the company	
3.	District	
4.	State	
5.	Postal address for communication:	
6.	E-mail:	
7.	Power Plant installed capacity (MW):	
8.	Plant Load Factor (PLF):	
9.	No. of units generated (MWh):	
10.	Total area under power plant (ha): (including area under ash ponds)	
11.	Quantity of coal consumption during reporting period (Metric Tons per Annum):	
12.	Average ash content in percentage (per cent):	
13.	Quantity of current ash generation during reporting period (Metric Tons per Annum): Fly ash (Metric Tons per Annum): Bottom ash (Metric Tons per Annum):	
14.	Capacity of dry fly ash storage silo(s) (Metric Tons) :	
15.	Details of utilisation of current ash generated during reporting period (a) Total quantity of current ash utilised (MTPA) during reporting period: (b) Quantity of fly ash utilised (MTPA): (i) Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels) (ii) Cement manufacturing:	

	(iii) Ready mix concrete: (iv) Ash and Geo-polymer based construction material: (v) Manufacturing of sintered or cold bonded ash aggregate: (vi) Construction of roads, road and fly over embankment: (vii) Construction of dams: (viii) Filling up of low lying area: (ix) Filling of mine voids: (x) Use in overburden dumps: (xi) Agriculture: (xii) Construction of shoreline protection structures in coastal districts; (xiii) Export of ash to other countries: (xiv) Others (please specify): (c) Quantity of bottom ash utilised (MTPA): (i) Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels): (ii) Cement manufacturing: (iii) Ready mix concrete: (iv) Ash and Geo-polymer based construction material: (v) Manufacturing of sintered or cold bonded ash aggregate: (vi) Construction of roads, road and flyover embankment: (vii) Construction of dams: (viii) Filling up of low lying area: (ix) Filling of mine voids: (x) Use in overburden dumps: (xi) Agriculture: (xii) Construction of shoreline protection structures in coastal districts: (xiii) Export of ash to other countries: (xiv) Others (please specify): Total quantity of current ash unutilised (MTPA) during reporting period:	
16.	Percentage utilisation of current ash generated during reporting period (per cent):	
17.	Details of disposal of ash in ash ponds (a) Total quantity of ash disposed in ash pond(s) (Metric Tons) as on 31st March (excluding reporting period): (b) Quantity of ash disposed in ash pond(s) during reporting period (Metric Tons): (c) Total quantity of water consumption for slurry discharge into ash ponds during reporting period (m³): (d) Total number of ash ponds: (i) Active: (ii) Exhausted (yet to be reclaimed): (iii) Reclaimed: (e) total area under ash ponds (ha):	
18.	Individual ash pond details <i>Ash pond-1,2, etc (please provide below mentioned details separately, if number of ash ponds is more than one)</i> (a) Status: Under construction or Active or Exhausted or	

	Reclaimed (b) Date of start of ash disposal in ash pond (DD/MM/YYYY or MMYYYY): (c) Date of stoppage of ash disposal in ash pond after completing its capacity (DD/MM/YYYY or MM/YYYY): (Not applicable for active ash ponds) (c) area (hectares): (d) dyke height (m): (d) volume (m³): (e) quantity of ash disposed as on 31st March (Metric Tons): (f) available volume in percentage (per cent) and quantity of ash can be further disposed (Metric Tons): (g) expected life of ash pond (number of years and months): (e) co-ordinates (Lat and Long): (please specify minimum 4 co-ordinates) (f) type of lining carried in ash pond: HDPE lining or LDPE lining or clay lining or No lining g) mode of disposal: Dry disposal or wet slurry (in case of wet slurry please specify whether HCSD or MCSD or LCSD) (h) Ratio of ash: water in slurry mix (1:___): (i) Ash water recycling system (AWRS) installed and functioning: Yes or No (j) Quantity of wastewater from ash pond discharged into land or water body (m3): (k) Last date when the dyke stability study was conducted and name of the organisation who conducted the study: (l) Last date when the audit was conducted and name of the organisation who conducted the audit:											
19.	Quantity of legacy ash utilised (MTPA): i. Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels): ii. Cement manufacturing: iii. Ready mix concrete: iv. Ash and Geo-polymer based construction material: v. Manufacturing of sintered or cold bonded ash aggregate: vi. Construction of roads, road and flyover embankment: vii. Construction of dams: viii. Filling up of low lying area: ix. Filling of mine voids: x. Use in overburden dumps: xi. Agriculture: xii. Construction of shoreline protection structures in coastal districts; xiii. Export of ash to other countries: xiv. Others (please specify):											
20.	Summary: <table><tr><td>Details</td><td>Quantity generated (MTP)</td><td>Quantity utilised (MTP) and (per cent)</td><td>Balance quantity (MTP)</td></tr><tr><td></td><td></td><td></td><td></td></tr></table>				Details	Quantity generated (MTP)	Quantity utilised (MTP) and (per cent)	Balance quantity (MTP)				
Details	Quantity generated (MTP)	Quantity utilised (MTP) and (per cent)	Balance quantity (MTP)									

	Current ash during reporting period			
	Legacy ash			
	Total			
21.	Any other information: Soft copy of the annual compliance report, and shape files of power plant and ash ponds may be e-mailed to:- moefcc-coalash@gov.in			
22.	Signature of Authorised Signatory			



भारत का राजपत्र The Gazette of India

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असाधारण
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)
PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित
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पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 30 दिसम्बर, 2022

का.आ. 6169(अ).—पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय में भारत सरकार ने पर्यावरण (संरक्षण) नियम, 1986 के नियम (5) के उप-नियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए भारत के राजपत्र, असाधारण, भाग II, खंड 3 उप खंड (ii) का.आ. 5481(अ), तारीख 31 दिसंबर, 2021 द्वारा एक अधिसूचना जारी की थी (जिन्हें इसमें इसके पश्चात इसे राख के उपयोग से संबंधित अधिसूचना कहा गया है);

और, राख के उपयोग से संबंधित अधिसूचना के उपबंधों के कार्यान्वयन के संबंध में विद्युत मंत्रालय, ताप विद्युत संयंत्रों और विभिन्न हितधारकों से अनुरोध प्राप्त हुए हैं;

और, राख के उपयोग से संबंधित अधिसूचना के कार्यान्वयन में सुचारू परिवर्तन लाने हेतु उक्त अधिसूचना के कतिपय उपबंधों में संशोधन लाना उचित है;

अतः अब, केन्द्रीय सरकार पर्यावरण (संरक्षण) नियम, 1986 के नियम (5) के उप-नियम (1), (2) और (4) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, जारी राख के उपयोग संबंधी अधिसूचना में निम्नलिखित संशोधन करती है, अर्थात्:-

जारी राख के उपयोग से संबंधित अधिसूचना में संशोधन –

1. पैरा क में, -

(i) उप पैरा क (4) में, तीसरे परंतुक के पश्चात निम्नलिखित परंतुक अंतर्विष्ट किया जाएगा, अर्थात् :

“परन्तु, यह भी कि इस अधिसूचना के प्रकाशन की तारीख को अथवा उसके पश्चात् स्थापित नए ताप विद्युत संयंत्र सारणी में यथा विनिर्दिष्ट 60 प्रतिशत से कम ताप विद्युत संयंत्रों के लिए विनिर्दिष्ट अनुपालन चक्र के समान प्रथम अनुपालन चक्र का अनुसरण करेंगे।

टिप्पण : लागू अनुपालन चक्र के अनुसार उपयोग के लक्ष्य 1 अप्रैल, 2022 से प्रभावी होंगे।”

(ii) उप पैरा 5 में, -

(क) आरंभिक पैरा में, “इस अधिसूचना के प्रकाशन की तारीख” शब्दों के स्थान पर “1 अप्रैल, 2022” उक्त अक्षर और शब्द रखे जाएंगे;

(ख) दूसरे परंतुक में, -

(i) “हरित पट्टी या पौधरोपण” के पश्चात, “या उप पैरा (6) में यथा विनिर्दिष्ट केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) द्वारा जारी मार्गदर्शी सिद्धांतों के अनुसार सौर ऊर्जा संभव या पवन ऊर्जा संयंत्र” शब्द कोष्ठकों और अक्षरों को अंतःस्थापित किए जाएंगे;

(ii) “केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) या” शब्द कोष्ठक और अक्षर हटा दिया जाएगा।

(iii) “एक वर्ष” शब्दों के स्थान पर “तीन वर्ष” शब्दों को रखा जाएगा।

(iv) “इस अधिसूचना के प्रकाशन की तारीख” शब्दों के स्थान पर “1 अप्रैल, 2022” उक्त अक्षर और शब्द रखे जाएंगे;

(ग) दूसरे परंतुक के पश्चात निम्नलिखित उपलब्ध अंतःस्थापित किया जाएगा, अर्थात् :

“परंतु कि पैरा क (6) में यथाविनिर्दिष्ट राख के अस्थायी भंडारण हेतु अभिहीत किए गए संचालित राख कुंड या डाइक के सिवाय सभी राख कुंडों या डाइक में संग्रहीत राख में पुरानी राख एकत्रित होगी और या तो इसे पुनःप्राप्त या स्थिर या उपयोग करना होगा।”

(iii) उप पैरा (6) के स्थान, उप पैरा रखा जाएगा, अर्थात्:

“(6) किसी भी नए और साथ ही चालू थर्मल पावर प्लांट को 0.1 हेक्टेयर प्रति मेगा वाट (मेगावाट) के क्षेत्र में राख के अस्थायी भंडारण के लिए परिचालन राख तालाब या डाइक की अनुमति दी जा सकती है। केन्द्रीय विद्युत प्राधिकरण के परामर्श से बनाए गए केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) के दिशा-निर्देशों के अनुसार परिचालन के साथ-साथ स्थिर और पुनः दावा किए गए राख तालाबों या बांधों की तकनीकी विशिष्टताओं के अनुसार होंगे और ये दिशानिर्देश वार्षिक प्रमाणन के लिए एक प्रक्रिया भी निर्धारित करेंगे। परिचालन के साथ-साथ राख तालाब या डाइक को उसकी सुरक्षा, पर्यावरण प्रदूषण, उपलब्ध मात्रा, निपटान के तरीके, पानी की खपत या निपटान में संरक्षण, राख जल पुनर्चक्रण और हरित पट्टी, आदि पर परिचालन के साथ-साथ स्थिर और पुनः प्राप्त किया जाएगा और इस अधिसूचना के प्रकाशन की तारीख से तीन महीने भीतर रखा जाएगा :

परंतु कि 31 दिसंबर, 2021 से पहले चालू किए गए ताप विद्युत संयंत्रों के लिए 1600 मेगावाट से कम या उसके बराबर स्थापित क्षमता वाले दो परिचालन राख तालाबों या डाइकों तक और 1600 से अधिक स्थापित क्षमता वाले ताप विद्युत संयंत्रों के लिए चार परिचालन राख तालाबों या बांधों तक MW, मौजूदा राख तालाबों या बांधों से निर्दिष्ट क्षेत्र के भीतर कई लैगून होने पर, निर्देशांक के साथ स्पष्ट सीमांकन के साथ नामित किया जा सकता है, और केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी)/प्रदूषण को सूचित करेगा। नियंत्रण समिति (पीसीसी) 31 मार्च, 2023 तक :

परंतु आगे कि नए थर्मल पावर प्लांट या मौजूदा थर्मल पावर प्लांट के विस्तार के मामले में केवल एक ऐश पोंड या डाइक की अनुमति दी जाएगी 31 दिसंबर, 2021 को या उसके बाद, जो केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी)/प्रदूषण नियंत्रण समिति (पीसीसी) को कमीशन की तारीख से 3 महीने के भीतर निर्देशांक के साथ सीमांकन के विवरण की सूचना देगा। थर्मल पावर प्लांट या 31 मार्च, 2023 तक, जो भी बाद में हो :

परंतु यह और कि कोयला और लिग्नाइट आधारित तापीय विद्युत संयंत्रों को आगे किसी भी नए कार्यशील राख कुंड या डाइक को स्थापित करने या नाम निर्दिष्ट करने की अनुमति नहीं दी जाएगी।

परंतु यह और कि कार्यशील राख कुंड या डाइक की 0.1 हे./मेगावाट (एमडब्ल्यू) का विनिर्देशन तारीख 3 नवम्बर, 2009 से पूर्व चालू तापीय विद्युत संयंत्रों पर लागू नहीं होंगे।”

2. पैरा ख में, -

(i) उप पैरा (1) में, “300 कि.मी. के भीतर” शब्दों कोष्ठकों और आंकड़ों के स्थान पर “300 कि.मी. के रेडियस के भीतर” शब्द कोष्ठक और आंकड़े रखे जाएंगे।

(ii) उप पैरा (8) में, उच्चतर “वैकल्पिक उत्पादों के मूल्य से अधिक” शब्दों के स्थान पर “केन्द्रीय लोक कार्य विभाग (सीपीडब्ल्यूडी) या संबंधित लोक कार्य विभाग (पीडब्ल्यूडी) द्वारा विनिर्दिष्ट दरों की अनुसूची में उल्लिखित मूल्य या दरों की अनुसूची के अधीन निर्धारित न होने परल वैकल्पिक उत्पादों का मूल्य” शब्द रखे जाएंगे।

3. पैरा घ में, -

(i) उप पैरा (2) के स्थान, उप पैरा रखा जाएगा, अर्थात्:

“(2) जिन व्यक्तियों या उपयोगकर्ता या एजेंसियों को थर्मल पावर प्लांट के मालिक द्वारा नोटिस दिया गया है, अगर वे राख के उपयोग के उद्देश्य से पहले से ही अन्य एजेंसियों के साथ करार कर चुके हैं तो थर्मल पावर प्लांट को तदनुसार सूचित करेंगे और यदि वे उपयोग नहीं कर सकते हैं कोई राख या कम मात्रा का उपयोग कर सकता है।”

(ii) उप-पैरा (2) के पश्चात्, निम्नलिखित उप-पैरा अंतःस्थापित किया जाएगा, अर्थात्:

“(3) जिन व्यक्तियों या उपभोक्ता अभिकरणों को, यदि वे राख आधारित उत्पादों के उपयोग के उद्देश्य से अन्य अभिकरणों के साथ पहले से जुड़े हुए हैं, ऐश ब्रिक्स या टाइल्स या सिंटेड ऐश ऐग्रीगेट या अन्य राख आधारित उत्पादों के विनिर्माताओं के द्वारा नोटिस दिया गया है तो उन्हें ऐश ब्रिक्स या आइल्स या सिंटेड ऐश ऐग्रीगेट या अन्य राख आधारित उत्पादों के विनिर्माताओं को सूचित करना होगा, तदनुसार, यदि वे राख आधारित उत्पादों का उपयोग नहीं कर सकते या कम प्रमात्रा में उपयोग कर सकते हैं।”

2. यह अधिसूचना राजपत्र में प्रकाशन की तारीख से प्रवृत्त होगी।

[फा. सं. एचएसएम - 9/1/2019- एचएसएम]

नरेश पाल गंगवार, अपर सचिव

टिप्पण : मूल अधिसूचना भारत के राजपत्र, असाधारण, भाग-II, खंड 3, उप-खंड (ii) सं. एस 5481(अ) तारीख 31 दिसम्बर, 2021 के द्वारा में प्रकाशित की गई।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 30th December, 2022

S.O. 6169(E).—Whereas, the Government of India, Ministry of Environment, Forest and Climate Change, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule (5) of the Environment (Protection) Rules, 1986, issued a notification published in the Gazette of India, Extraordinary, Part II, Section 3, sub-section (ii) *vide* S.O.5481(E), dated the 31st December, 2021 (herein after referred to as the ash utilisation notification);

And whereas, requests have been received from Ministry of Power, thermal power plants and various stakeholders regarding implementation of provisions of the ash utilisation notification;

And whereas, it is expedient to make amendments to certain provisions of the said notification to have smooth transitioning in implementation of the ash utilisation notification;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with of sub-rule (1), (2) and (4) of rule (5) of the Environment (Protection) Rules, 1986, the Central Government hereby makes the following amendments in the ash utilisation notification namely:-

In the ash utilisation notification,-

(1) in paragraph A,-

(i) in sub-paragraph (4), after the third proviso, the following shall be inserted, namely,-

“Provided also that new thermal power plants commissioned on or after the date of publication of this notification shall follow the first compliance cycle similar to the compliance cycle specified for thermal power plants having utilisation per cent. less than 60 per cent. as specified in the table.

Note: The utilisation targets as per the applicable compliance cycle shall commence from 1st April, 2022.”.

(ii) in sub- paragraph (5),-

(a) in the opening paragraph, for the words “the date of publication of this notification”, the figures, letters and word “1st April, 2022” shall be substituted;

(b) in the second proviso, -

(i) after the words “green belt or plantation”, the words, brackets, letters and figure “or solar power plant or wind power plant as per the guidelines issued by the Central Pollution Control Board (CPCB) as specified in sub-para (6)” shall be inserted,

(ii) the words, brackets and letters “Central Pollution Control Board (CPCB) or” shall be deleted,

(iii) for the words “a year”, the words “three years” shall be substituted,

(iv) for the words “the date of publication of this notification”, the figures, letters and word “1st April, 2022” shall be substituted.

(c) after the second proviso, the following proviso shall be inserted, namely:

“Provided that ash stored in all ash ponds or dykes other than operational ash pond or dyke designated for temporary storage of ash as specified in sub-para (6) shall constitute the legacy ash and either to be reclaimed or stabilised or utilised.”.

(iii) for sub- paragraph (6), the following sub-para shall be substituted, namely,-

“(6) Any new as well as operational thermal power plant may be permitted operational ash pond or dyke for temporary storage of ash within an area of 0.1 hectare per Mega Watt (MW). Technical specifications of operational as well as stabilised and reclaimed ash ponds or dykes shall be as per the guidelines of the Central Pollution Control Board (CPCB) made in consultation with the Central Electricity Authority (CEA) and these guidelines shall also lay down a procedure for annual certification of the operational as well as stabilised and reclaimed ash pond or dyke on its safety, environment pollution, available volume, mode of disposal, water consumption or conservation in disposal, ash water recycling and green belt, etc. and shall be put in place within three months from the date of publication of this notification:

Provided that up to two operational ash ponds or dykes for thermal power plants commissioned before 31st December, 2021, having installed capacity less than or equal to 1600 MW, and up to four operational ash ponds or dykes for thermal power plants having installed capacity more than 1600 MW, having multiple lagoons, within the specified area from the existing ash ponds or dykes, may be designated with clear demarcation along with coordinates, and shall inform to Central Pollution Control Board (CPCB) and concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) by 31st March, 2023:

Provided further that one ash pond or dyke shall be permitted in case of new thermal power plants or expansion of existing thermal power plants commissioned on or after 31st December, 2021, which shall inform the details of demarcation along with coordinates to Central Pollution Control Board (CPCB) and concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) within 3 months from the date of commissioning of thermal power plant or by 31st March, 2023, whichever is later:

Provided also that coal and lignite based thermal power plants shall not be allowed to further establish or designate any new operational ash pond or dyke:

Provided also that specification of 0.1 hectare per Mega Watt (MW) of an operational ash pond or dyke shall not be applicable for the thermal power plants commissioned before 03rd November, 2009.”.

(2) in paragraph B,-

(i) in sub- paragraph (1), for the words, figures and letters “within 300 kms”, the words, figures and letters “within a radius of 300 kms” shall be substituted,

(ii) in sub- paragraph (8), for the words “higher than the price of alternative products”, the words, brackets and letters “more than the price mentioned in the Schedule of Rates as specified by Central Public Works Department (CPWD) or concerned Public Works Department (PWD) or price of alternative products, if not mentioned in the Schedule of Rates.” shall be substituted.

(3) in paragraph -D, -

(i) for sub- paragraph (2), the following sub- paragraph shall be substituted, namely,-

“(2) Persons or user agencies who have been served notice by owner of thermal power plants, if they have already tied up with other agencies for the purpose of utilisation of ash, shall inform the thermal power plant accordingly, and if they cannot use any ash or may use reduced quantity.”.

(ii) after sub- paragraph (2), the following sub-para shall be inserted, namely,-

“(3) Persons or user agencies who have been served notice by manufacturers of ash bricks or tiles or sintered ash aggregate or other ash based products, if they have already tied up with other agencies for the purpose of utilisation of ash based products, shall inform the manufacturer of ash bricks or tiles or sintered ash aggregate or other ash based products, accordingly, and if they cannot use ash based products, or may use reduced quantity.”.

2. This notification shall come into force on the date of its publication in the Official Gazette.

[F. No. HSM-9/1/2019-HSM]

NARESH PAL GANGWAR, Addl. Secy.

Note : The principal notification was published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii), dated the 31st December, 2021, *vide* number S.O.5481 (E), dated the 31st December, 2021.

F. No. 09/01/2019-HSMD
Government of India
Ministry of Environment, Forest & Climate Change
(HSM Division)

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

Dated: 7th December, 2022

OFFICE MEMORANDUM

Sub.: Minutes of the meeting of Fly Ash Management and Utilization Mission held on 24.11.2022- reg.

The undersigned is directed to enclose herewith the minutes of the meeting of “Fly Ash Management and Utilization Mission” held under the Co-Chairpersonship of Secretary (EF&CC) and Secretary (Power) on 24.11.2022 at 15:00 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

Ph: 011-20819291

Email: satyendra.kumar07@nic.in

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

**Minutes of the meeting of Fly Ash Management and Utilization Mission
held on 24.11.2022 at 15:00 hrs**

A virtual meeting on 'Ash Management and Utilization Mission', in respect to Hon'ble NGT's Order dated 18.01.2022 in the matter related to the issues of industrial pollution in Singrauli and Sonbhadra region of M.P. and U.P. respectively, was convened on 24th November, 2022 at 15:00 hrs. The list of participants is annexed at **Annexure I**.

During the meeting, following deliberations took place:

1. It was informed that the issues of pollution caused by TPPs and other industries, stone crushers, transportation and coal mining located in Singrauli district of M.P. and Sonbhadra district of U.P. have been raised under various cases to Hon'ble NGT on several instances.
2. It was shared that a team of MoEF&CC officials, Chairman, CPCB and representatives of NTPC visited Singrauli region of M.P.
3. Thereafter, MoEF&CC in its brief presentation (**Annexure II**), summarised the pollution related issues in both the regions, compliance directions given by the Hon'ble NGT and term of references of the Mission. It also reflected the present status of implementation of given directions based on the available compliance report from various stakeholders. The salient points of the presentation are as under:
 - a. The Hon'ble NGT order vide dated 18.01.2022 has emphasized 18 stakeholders from of both the regions to implement the recommendations of Joint Committee and prepare the action plan and implement it in a time bound manner.
 - b. In compliance with one of the direction of Hon'ble NGT in respect to formulation of general road map regarding utilization and management of ash generated by thermal power plants in these two regions as well as across the country, MoEF&CC has already issued a notification on ash utilization that mandates 100% utilization of ash and various other provisions that may lead to effective management of ash in scientific manner.

- c. The action points that emanates from the ash utilization notification dated 31.12.2021 are being taken into consideration and would be by expedited by concerned enforcement agency/ departments.
4. It was shared that the formulation of guidelines for technical specifications of ash ponds or dykes and procedure for annual certification of the ash pond or dyke has been initiated by Central Pollution Control Board as mandated under Para A (6) of ash utilization notification dated 31.12.2021.
5. CMD, NCL informed that for the purpose of mixing at least 25 per cent of ash on weight to weight basis of the materials used for external dump of overburden, backfilling or stowing of mine, low stripping ratio mines may be put on trial as there is possibility of mixing of ash with overburden in mine voids.

After deliberations, following decisions were made:

1. Secretariat to be established in CPCB for coordination, monitoring and supervision of the actions emanating from the deliberations and decisions of the Fly Ash Supervision and Utilization Mission. **(Action: CPCB)**
2. For effective prevention, control and abatement of industrial pollution in Singrauli and Sonbhadra districts, the actions plans prepared based on the recommendations of the Joint Committee, mentioned out in Para 15 of the Hon'ble NGT's Order dated 18.01.2022, to be scrupulously implemented in a time-bound manner as per the action plans at **Annexure III (Action: CPCB, State Govts of UP and MP, M/s NTPC Limited (Singrauli) Shakti Nagar Sonbhadra, M/s NTPC Rihand Super Thermal Power, M/s NTPC Limited Vindhyachal Super Thermal Power Plant, M/s Anpara Thermal Power Plant, M/s Obra Thermal Power Station, M/s NCL Bina Project, Bina, Sonbhadra, M/s NCL Dudhichuwa Project, Sonbhadra, M/s NCL Kakri Project, Sonbhadra, M/s NCL Khadia Project, Sonbhadra, M/s NCL Krishna Shila Project, M/s Renusagar Thermal Power Plant, Aluminum Smelter: M/s HINDALCO Industries Ltd, Renukoot, M/s Grasim Industries Limited Chemical Division, Renukoot, M/s M.P. Power Generating Co. Ltd. (MPPGCL), M/s Birla Carbon India Pvt. Ltd., Sonbhadra)**

3. CPCB and CEA to scrutinize the action plans submitted by the respective stakeholders as per Point No. 2 above to ensure that the action points have been prepared as per the recommendations of the Joint Committee as mentioned out in Para 15 of the Hon'ble NGT's Order dated 18.01.2022. CPCB to ensure that all the activities are covered and must have specific timelines **(Action: CPCB, CEA)**
4. In order to ensure 100% utilization of ash by lignite and coal based thermal power plants, effective monitoring and supervision of provisions of Ash Utilization Notification dated 31.12.2021 **(Annexure IV)** have to be scrupulously complied with. Respective stakeholders have been mapped in respect of the various activities mandated under the notification. CPCB to coordinate with all the regulatory/enforcing agencies and ensure the compliance of all the activities in a time bound and on a regular basis **(Action: CPCB, CEA, All State Govts, All stakeholders as per Annexure IV)**
5. Concerned District Magistrates of Singrauli and Sonbhadra to submit action plans immediately for effective prevention, control and abatement of pollution from stone crushers located at their respective districts. Further, the action plans submitted must be scrupulously implemented in a time bound manner. **(Action: State Govts of U.P. and M.P., District Magistrates – Sonbhadra and Singrauli)**
6. M/s Anpara 'C' Lanco to submit action plans based on the recommendations in para 15 of the Hon'ble NGT's Order dated 18.01.2022 immediately. **(Action: M/s Anpara 'C' Lanco, State Govt of UP)**
7. Secretariat at CPCB to upload the action plans and the progress of the action plans on the web portal of CPCB by 5th of next month, the link of which may be placed on MoEFCC as well as the concerned State Government's and other stakeholders' websites. CPCB to put in place an IT based tool for updating the progress in regard to the implementation of action plans by respective stakeholders as well as in regard to the activities as per Point 4 above. **(Action: CPCB, State Govts of UP and MP, All stakeholders)**
8. Concerned State Governments, the State Environment Departments and concerned SPCBs to take all measures for the prevention, control and

abatement of the industrial pollution in Sonbhadra and Singrauli districts to bring down the pollution levels in these districts. The compliance of the conditions of CTOs as well as ECs in respect of all the industries, including the installation and functioning of all pollution control as well as monitoring devices, must be strictly complied with by all industrial/mining/ quarrying units. These compliances to be reported to CPCB on a monthly basis through a web portal that reflects the obligations and compliances as per CTO as well as EC in respect of all units **(Action: State Governments of U.P. and M.P.)**

9. All the industrial, coal and other mining activities as well as the stone quarrying and crushing in the districts of Sonbhadra and Singrauli must be carried out in compliance with the Air Act, Water Act and EP Act. Regular inspections and audits to be carried out by the concerned SPCBs **(Action: State Governments of U.P. and M.P.)**
10. The respective State Government to receive voluntary fund contributions out of the CSR funds from companies in respective districts. Concerned State Government to create a separate account to receive voluntary contributions and funds for environment restoration and relief. Concerned 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: State Governments of U.P. and M.P.)**
11. Concerned State Governments to arrange for conducting health and risk impact assessment studies of operations of TPPs and ash generating industries. **(Action: State Governments of U.P. and M.P.)**

List of Participants

- 1) Ms. Leena Nandan, Secretary, EFCC
- 2) Shri. Alok Kumar, Secretary, Power
- 3) Shri Anandji Prasad, Advisor, MoC
- 4) Shri. Naresh Pal Gangwar, Additional Secretary, MoEFCC
- 5) Dr. Satyendra Kumar, Director, MoEFCC
- 6) Shri N. Subrahmanyam, Scientist D, MoEFCC
- 7) Shri. Nazimuddin, Scientist F, CPCB
- 8) Shri MVR Reddy, ED, SSEA, NTPC
- 9) Managing Director, UPRVUNL
- 10) Shri Ajay Kumar Sharma, MS, UPPCB
- 11) Dr. Hemant Kumar Sharma, MPPCB, Jabalpur
- 12) Shri S C Naik, DGM Operations, NTPC
- 13) Shri Bhola Singh, CMD, NCL - SINGRAULI
- 14) Shri R N Shukla, Adani
- 15) Shri Basuraj Goswami, Executive Director, NTPC
- 16) Shri Sitiesh Barche, NTPC
- 17) Shri R D Patil, CPCB Lucknow
- 18) Shri A K Chattopadhyay, NTPC
- 19) Shri M. Devaraj, Chairman, UPPCL
- 20) Shri Ravindra Raghuvanshi, Birla Carbon
- 21) Dr. Bhola Kushwaha, Head, Environment, HPPL
- 22) Shri V R Shankar, M/s Hindalco
- 23) Shri Vivek Gupta, Aditya Birla
- 24) Shri V R Shankar, Aditya Birla
- 25) Shri. Harish Duhan, GM (Nigahi), NCL
- 26) M/s Sasan Ultra Mega Power Plant
- 27) Shri BG Setty, Addl. GM, NTPC
- 28) General Manager, Jhingurda Project, NCL
- 29) Chief General Manager, M/s Obra Thermal Power Station
- 30) Shri Utpal Sarkar, Aditya Birla
- 31) Regional Officer, Sonbhadra, UPPCB
- 32) Shri M Devaraj, Chairman, UPPCL
- 33) Regional Officer, Bhopal, MoEFCC
- 34) Regional Officer, Singrauli, MPPCB
- 35) Nodal Officer, Environment, Amhohri Project, NCL
- 36) Additional Chief Secretary, UP
- 37) Shri Dinesh Kumar Meena, NTPC
- 38) Shri V Santosh, NTPC
- 39) Shri Munish Jain, NTPC
- 40) Shri S C Naik, NTPC
- 41) Shri Sanjay Singh, Grasim Corporate
- 42) Shri Ramesh Babu, NTPC
- 43) Shri Anshul Chilbule, MPPCB Bhopal

- 44) Dushichua Project, NCL
- 45) Shri Alan Antony, Deputy Manager, Environment, Bina Project, NCL
- 46) Regional Director, CPCB, Bhopal
- 47) Shri R B Sindhur, SOM, Nigahi
- 48) Shri Gurdeep Singh, NTPC
- 49) ATP, Anpara
- 50) Shri Ravindra Nath Singh, Director (Thermal)
- 51) Shri Jitendra Yadav
- 52) Shri Rajiv Kumar, General Manager, NCL Khadia
- 53) Shri Manohar Kumar, Rosa Power
- 54) Shri Sunil Kumar Meena, Sc-D, CPCB
- 55) Additional Chief Secretary, Energy, UP

Presentation
on
Industrial Pollution in Singrauli and Sonbhadra Districts
&
Effective Utilisation and Management of Fly Ash



HSM Division
Government of India
Ministry of Environment, Forest & Climate Change

24th November, 2022

Singrauli District:

- i. TPPs- 5 (NTPC Vindhyachal, Sasan UMPP, Jaypee Nigrie, Adani Power (MP) Ltd., and Hindalco Industries Ltd.)**
- ii. Coal Mines- 8 (NCL - Jhingurda, Khadia, Block-B, Jayant, Amlohri, Nigahi, Dudhichua, and Bina)**
- iii. Stone Crushers**

Sonbhadra District:

- i. TPPs– 9 (NTPC Singrauli, NTPC Rihand, UPRVUNL Anpara A, B & D TPS, Lanco Anpara C TPS, UPRVUNL Obra TPS, Hindalco Industries Ltd. (Renukoot CPP), Hindalco Industries Ltd. (Renusagar CPP), UltraTech Cement Ltd. (Dalla Cement CPP),Grasim Industries Ltd. (CPP)**
- ii. Coal Mines – 5 (NCL - Kakri, Krishnashila, Bina Extn., Dudhichua, Khadia)**
- iii. Aluminium Smelter (Hindalco)**
- iv. Stone Crushers**

- **Major issues of industrial pollution-**
 - **Industrial pollution and ash management related issues**
 - **Installation of pollution control as well as monitoring devices**
 - **Discharge of wastewater and ash in Rihand reservoir/water bodies**
 - **Pollution by stone crushers, coal mining and transportation.**
- **Joint Committee constituted -2018, report submitted-2019.**
- **Committee gave recommendations in respect of all industries**
- **Oversight Committee formed to review implementation**
- **Further, committees comprising of respective DMs constituted for compliance**
- **Hon'ble NGT vide Order dated 18.01.2022 directed to constitute Fly Ash Management and Utilization Mission.**
- **MoEF&CC vide OM dated 09.03.2022 constituted Fly Ash Management and Utilization Mission**

- **NGT directed the Mission to :-**

- Coordinate and monitor of ash utilization matters as well as all associated industrial pollution issues in Singrauli and Sonbhadra region
- To take stock of the situation and to prepare action plan in the light of recommendations of Joint Committee in respect of Singrauli and Sonbhadra
- To prepare general road map and monitoring of scientific ash utilisation and management including legacy ash
- May review the progress on a monthly basis and may place the quarterly progress on website
- May require voluntary financial contributions out of CSR funds from companies
- May get separate account for restoration of environment and relief to victims of damage in a manner as may be found necessary
- May consider the safeguards in ash utilisation notification dated 21.12.2021
- May interact with stakeholders, including brick manufacturers for fly ash utilisation
- May conduct public health and risk impact assessment in areas of operation of TPPs and other generators of ash
- May consider use of beneficiated coal
- May consider onsite and offsite crisis management plans with regard to ash ponds and dykes

Action plans have been submitted by 15 stakeholders:

- M/s NTPC Limited (Singrauli) Shakti Nagar Sonbhadra,
- M/s NTPC Rihand Super Thermal Power,
- M/s NTPC Limited Vindhyachal Super Thermal Power Plant,
- M/s Anpara Thermal Power Plant
- M/s Obra Thermal Power Station
- M/s NCL Bina Project, Bina, Sonbhadra,
- M/s NCL Dudhichuwa Project, Sonbhadra,
- M/s NCL Kakri Project, Sonbhadra,
- M/s NCL Khadia Project, Sonbhadra,
- M/s NCL Krishna Shila Project,
- M/s Renusagar Thermal Power Plant, Aluminum Smelter:
- M/s HINDALCO Industries Ltd, Renukoot,
- M/s Grasim Industries Limited Chemical Division, Renukoot,
- M/s M.P. Power Generating Co. Ltd. (MPPGCL),
- M/s Birla Carbon India Pvt. Ltd., Sonbhadra.

Action plans from namely, M/s Anpara 'C' Lanco Thermal Power Station, and

Action plans w.r.t. Stone Crushers yet to be submitted by concerned DMs.

SI No.	Action	Recommendation
1	Coordinate and monitor ash utilization matters as well as all associated industrial pollution issues in Singrauli and Sonbhadra region	• MPPCB in respect of Singrauli, UPPCB in respect of Sonbhadra to enforce the action plans of industries as well as relating to stone crushers (submitted by DMs) • CPCB to coordinate overall enforcement of all related matters

SI No.	Action	Recommendation
2	To take stock of the situation and to prepare action plan in the light of recommendations of Joint Committee in respect of Singrauli and Sonbhadra	i.Action plans from the industries specified at Para 15 of NGT w.r.t Joint Committee recommendations received from 15 industries (TPPs, mines, Aluminium Smelters). Action plans yet to be received from:- • M/s Anpara C Lanco Thermal Power Station; • Stone crushers in Singrauli and Sonbhadra region. ii.UP State Pollution Control Board (with respect to M/s Anpara C Lanco Thermal Power Station) and concerned District Magistrates (with respect to stone crushers) have been requested to obtain action plans.

SINo	Action	Recommendation
3	(a) To prepare general road map and monitoring of scientific ash utilisation and management including legacy ash (b) May consider the safeguards in ash utilisation notification dated 21.12.2021 (c) May interact with stakeholders, including brick manufacturers for fly ash utilisation	i. Ash Utilisation notification mandates 100% utilisation of ash ii. Different stakeholders/regulators have been given specific mandate as well as timelines iii. Detailed status is presented later slides iv. Technical specifications of ash ponds shall be as per the guidelines of CPCB made in consultation with CEA v. Guidelines shall lay down a procedure for annual certification of ash pond/dyke on its safety, environmental pollution, mode of disposal, water consumption/conservation in disposal, ash waster recycling and greenbelt, etc. vi. CPCB to prepare guidelines immediately. vii. Implementation Committee has been constituted under Ash Utilisation notification with concerned stakeholders. Fly ash brick manufacturers may be interacted.

SI No.	Action	Recommendation
4	May review the progress on a monthly basis and may place the quarterly progress on website	CPCB, State Governments of UP and MP, MPPCB and UPPCB to upload the monthly status on website by getting the progress of action plans submitted by industries

SI No.	Action	Recommendation
5	(a) May require voluntary financial contributions out of CSR funds from companies (b) May get separate account for restoration of environment and relief to victims of damage in a manner as may be found necessary (d) May conduct public health and risk impact assessment in areas of operation of TPPs and other generators of ash	i. Respective State Governments may be requested to receive voluntary financial contributions from CSR funds of the companies ii. Concerned State Government may get a separate account created to receive voluntary contributions and funds for environment restoration and relief. iii. Concerned State Governments to arrange for conducting health and risk impact assessment studies of operations of TPPs and ash generating industries

SI No.	Action	Recommendation
6	May consider use of beneficiated coal	MoEFCC vide notification dated 21.5.2020 removed the mandatory use of beneficiated coal for power plants and mandated to meet the emission norms and 100% ash utilisation as per prescribed timelines.

SI No.	Action	Recommendation
6	May consider onsite and offsite crisis management plans with regard to ash ponds and dykes	i. Concerned DMs to ensure onsite and offsite crisis management plans are in place for ash dykes in respective Districts.

Provisions of Ash Utilisation Notification and responsibilities of stakeholders

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SI No.	Action	Status	Timeline	Enforcement Agency/Dept.
1	Constitution of Committee for to examine and review and recommend the eco-friendly ways of utilisation of ash, Para A(3)	Completed	-	CPCB
2	100% Utilisation of current ash by TPPs as per timelines, Para A(4)	Ongoing	As prescribed	SPCB/PCC
3	Guidelines for procedure for annual certification of the ash pond or dyke on its safety, environmental pollution, available volume, mode of disposal, water consumption or conservation in disposal, ash water recycling and greenbelt etc., Para A(6)	Ongoing	Immediate	CPCB and CEA
4	Loading, unloading, transport, storage and disposal of ash to be done in an environmentally sound manner by TPPs and all precautions to prevent air and water pollution to be taken, Para A(7)	Ongoing	Immediate	CPCB and SPCB/PCC
5	Installation of dedicated silos by TPPs for storage of dry fly ash for at least sixteen hours of ash, Para A(8)	Ongoing	Immediate	CPCB and SPCB/PCC
6	TPPs to provide real time data daily regarding the availability of ash by providing the link to CPCB's web portal or mobile phone app, Para A(9)	To be started	Immediate	CPCB and SPC/PCC

SI No.	Action	Status	Timeline	Enforcement Agency/Dept.
7	Mandatory utilisation of ash by government, semi-government and private agencies for construction activities within 300 kms of the TPPs, <i>Para B(1)</i>	Ongoing	Immediate	CPCB and SPCB/PCC
8	Backfilling of ash in mine voids or mixing of ash with external overburden dumps under EPR by mines located within 300 km radius of TPPs, <i>Para B(3)</i>	Ongoing	Immediate	CPCB, SPCB/PCC, DGMS, IBM
9	Constitution of Committee for identification of mines for backfilling of mine voids with ash or mixing of ash with overburden dump, <i>Para B(5)</i>	Completed	-	CPCB
10	Committee to get the updated quarterly reports for identified mines, <i>Para B(5)</i>	Ongoing	Immediate	CPCB
11	Filling of low lying areas with ash for approved projects in accordance to the guidelines by CPCB, <i>Para B(6)</i>	Ongoing	Immediate	CPCB and SPCB/PCC
12	SPCB to publish the approved low lying sites, location, area and permitted quantity annually on its website, <i>Para B(6)</i>	Ongoing	Annual	SPCB/PCC

SI No.	Action	Status	Timeline	Enforcement Agency/Dept.
13	CPCB to put the guidelines in place for all types of activities envisaged under the notification, <i>Para B(7)</i>	Ongoing	Within one year of publication of notification	CPCB
14	Usage of ash bricks, tiles, sintered ash aggregate or other ash based products by all building construction projects located within a radius of 300 km from the TPP , provided these are made available at prices not higher than the price of alternative products, <i>Para B(8)</i>	Ongoing	Immediate	CPCB and SPCB/PCC
15	Issuance of notice to agencies for mandatory utilization of ash & ash-based products, <i>Para D(1)</i>	Ongoing	On-need basis	Owners of TPPs, manufacturers of ash based products
16	Enforcement and monitoring of utilization of ash by TPPs, <i>Para E(1)</i>	Ongoing	Quarterly	CPCB, SPCB/PCC and District Magistrate
17	Development of web portal by CPCB for provisions under the notification, <i>Para E(1)</i>	Ongoing	Immediate	CPCB
18	TPPs to upload monthly information regarding ash generation and utilization, <i>Para E(2)(i)</i>	Ongoing	By 5th of next month	CPCB
19	TPPs to upload annual implementation report providing information about compliance of provisions in the notification, <i>Para E(2)(i)</i>	Yet to start	By 30th of April	SPCB/PCC
20	Compilation of annual reports submitted by TPPs by CPCB and CEA, <i>Para E(2)(i)</i>	Yet to start	By 31st of May	CPCB, CEA

SI No.	Action	Status	Timeline	Enforcement Agency/Dept.
21	Constitution of a Committee for monitoring the implementation of the provisions of the notification, Para E(3)	Completed	-	CPCB
22	Meeting of the Committee to review annual implementation reports, Para E(3)	Ongoing	Once in six months	CPCB
23	Committee to hold stakeholder consultation for monitoring of ash utilization , Para E(3)	Ongoing	Once in six months	CPCB
24	Committee to submit six monthly report to MoEFCC, Para E(3)	Ongoing	Once in six months	CPCB
25	Constitution of State Level Committee to resolve disputes between TPPs and users of ash or manufacture of ash based products, Para E(4)	Ongoing	Immediate	CPCB
26	Compliance audit for ash disposal by TPPs and user agencies by auditors authorised by CPCB, Para E(5)	Ongoing	Annual	CPCB, SPCB/PCC
27	Audit report to be submitted to CPCB and concerned SPCB, Para E(5)	Yet to start	By 30th November every year	CPCB and SPCB/PCC
28	Initiation of action against non-compliant TPPs, Para E(5)	Yet to start	Within fifteen days of receipt of audit report	CPCB, SPCB/PCC

Action Plan based on the recommendation of Joint Committee

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SI No.	Stakeholders	Actions	Status			Timelines for Completion	Enforcement Agency/ Dept.
			Completed	Ongoing	Yet to be started		
1.	M/s NTPC Limited (Singrauli) Shakti Nagar Sonbhadra	Take measures to stop the discharge of ash pond overflow into the Rihand reservoir	Discharge of ash pond overflow has been stopped	. Augmentation of AWRS capacity by installing another pump (2000 m3/hr. capacity).	-	July, 23	MPPCB
		Relocation of the OCEMS in order to achieve the desired iso-kinetic sampling for particulate matter	OCEMS is working in NTPC Singrauli	OCEMS at Chimney will be installed along with FGD installation	-	Dec, 26(As per FGD Timeline)	MPPCB
		Installation of third CAAQMS	Installed	-	-	-	MPPCB
		Connection of CAAQMS to the CPCB/SPCB server	Connected	-	-	-	MPPCB
		Submission of a time-bound action plan for 100% fly ash utilization	-	Action Plan submitted	-	-	MPPCB
		Installation and commissioning of the FGD system in realization of the revised timeline	-	Work of absorber and associated work is in progress. All three Chimneys construction have been completed. Efforts are being made to complete FGD installation.	-	Commissioning by Dec'26(As per FGD Timeline)	MPPCB
		Treatment of the MSW generated from their residential colony	-	Bio-methanation plant has been commissioned. Composting pits with covered shed are being constructed. Non-biodegradable waste (plastic waste) is being sent to registered recycler.	-	October, 23	MPPCB
		Undertake immediate measures to control fugitive emission in ash dyke area	-	Measures for regular water sprinkling have been taken and fugitive emission is under control in the dyke area.	-	-	MPPCB

SI No.	Stakeholders	Actions	Status			Timelines for Completion	Enforcement Agency/ Dept.
			Completed	Ongoing	Yet to be started		
2.	M/s NTPC Rihand Super Thermal (Power Plant)	Connection of CAAQMS to the CPCB/SPCB server	Connected to CPCB/UPPCB server	-	-	-	CPCB/UPPCB
		Submission of a time-bound action plan for 100% fly ash utilization	-	Action Plan Submitted	-	-	CPCB/UPPCB
		Installation and commissioning of the FGD system in realization of the revised timeline	-	Civil and mechanical works for installation of FGD are in progress in full swing	-	Dec'26(As per FGD Timeline)	CPCB/UPPCB
3.	M/s NTPC Limited Vindhyachal Super Thermal Power Plant	Submission of a time-bound action plan for 100% fly ash utilization	-	Action Plan submitted	-	-	CPCB/UPPCB
		Explore possibilities for the construction of Ash mounds and submission of progress from time to time	NA	NA	NA	NA	CPCB/UPPCB

SI No.	Stakeholders	Actions	Status			Timelines for Completion	Enforcement Agency/ Dept.
			Completed	Ongoing	Yet to be started		
4.	M/s Renusagar Thermal Power Plant	Installation of sludge drying beds in the existing ETP	Installation of 02 No. Filter Press (of modern technology sludge drying beds) has been completed (Commissioning started)	Commissioning of the filter expected to be completed by end of November 2022	-	Nov, 2022	CPCB/UPPC B
		Relocation of the OCEMS in order to achieve the desired iso-kinetic sampling for particulate matter	For isokinetic sampling, installed new analyzers for Boiler#6 to #10	Connectivity with CPCB server to be provided	-	Connectivity by January, 2023	CPCB/UPPCB
		Submission of time bound action plan to relocate the existing CAAQMS	Relocated the existing 01 No. CAAQMS at lower altitude near Civil Office in March 2022. Data is linked with CPCB/SPCB server.	-	-	-	CPCB/UPPC B
		Completion of installation of another 02 CAAQMS	Installed	-			CPCB/UPPCB
		Connection of CAAQMS to the CPCB/SPCB server	Connected	-	-	-	CPCB/UPPC B
		Submission of time-bound action plan for 100% fly ash utilization	-	Action plan submitted	-	-	CPCB/UPPCB
		Installation and commissioning of the FGD system in realization of the revised timeline	-	Installation is expected to be completed by December 2023	-	Dec-23	CPCB/UPPC B
		Adoption of scientific approach for disposal of MSW	-	Non-biodegradable waste is being sent to vendors and Biodegradable waste is being converted to compost for in-house utilization	-	-	CPCB/UPPCB
		Undertake corrective measures to control the fugitive emissions from raw material storage and fly ash transportation areas	-	Waste sprinkling arrangements and rain guns are installed. Additional water sprinkling system installed	-	-	CPCB/UPPC B
		Submission of explanation for dumping the fly ash in haphazard manner	Ash disposed in haphazard manner has been reclaimed and area has been further cleaned	-	-	-	CPCB/UPPCB
		Undertake immediate action for proper disposal of fly ash					

SI No.	Stakeholders	Actions	Status			Timelines for Completion	Enforcement Agency/ Dept.
			Completed	Ongoing	Yet to be started		
5.	M/s Northern Coalfields Limited (NCL) Bina, Bina, Sonbhadra)	Submission of time bound action plan for controlling the fire in the coal stock yard	-	Action Plan submitted	-	-	CPCB/UPPCB
		Explore the possibility to monitor the status of fugitive emissions through the existing CCTV network provided for monitoring of production activities	-	A log book is being kept in CCTV Control Room and record fugitive emissions visible in CCTV cameras and corrective action taken on the report.	-	-	CPCB/UPPCB
		Strengthening of the vigilance mechanism to identify the default transporters and take stringent action against them	-	Compliance of fully tarapualin covered trucks is being ensured	-	-	CPCB/UPPCB
		Effective tyre washing facility for transport vehicles		Tendering process for tyre washing facility has been completed and LOA has been issued		Mar-23	CPCB/UPPCB
		Treatment and disposal of MSW generated in the residential colony	-	Proper treatment and disposal of MSW generated in residential colony is ensured.	-	-	CPCB/UPPCB
		Submission of time-bound action plan for compliance with the provision of the Notification of 2009 regarding utilization of 25% fly ash along with Over Burden (OB) for back-filling the abandoned mine.	-	-	Field study at NCL in one mine related to mine Backfilling through Fly Ash and its stability analysis is under approval stage. Tentative schedule of completion is by December 2023. Action plan will be submitted on the basis of recommendations of above mentioned study	Dec, 23	CPCB/UPPCB
		Take corrective measures so that the site of CAAQMS is open from all directions	-	This being complied. Trees within the close vicinity of CAAQMS have been trimmed to minimize hindrance at the site.	-	-	UPPCB

SI No.	Stakeholders	Actions	Status			Timelines for Completion	Enforcement Agency/ Dept.
			Completed	Ongoing	Yet to be started		
6.	M/s Northern Coalfields Limited (NCL) (NCL Dudhichuwa Project, Sonbhadra)	Regular operations of ETP	-	Continuous operation of ETP is ensured	-	-	CPCB/UPP CB
		Utilization of the treated effluent to achieve zero discharge	-	Treated Effluent from ETP is used in Water sprinkling, Fire fighting and wahsing of HEMM and zero discharge is maintained.	-	-	CPCB/UPP CB
		Ensure that no treated/untreated effluent will be discharged into the Balia Nalla which finally meets the Rihand reservoir	-	Water from various sources is pumped to ETP. Treated Effluent from ETP is being used in water sprinkling, fire fighting and wahsing of HEMM.	-	-	CPCB/UPP CB
		Explore the possibility to monitor the status of fugitive emissions through the existing CCTV network provided for monitoring of production activities	-	CCTV network is utilized for monitoring of fugitive emissions. In case of appearance of fugitive emissions on CCTV, immediate action is taken.	-	-	CPCB/UPP CB
		Strengthen the vigilance mechanism to identify the default transporters and take stringent action against them	-	Only tarapauline covered trucks are allowed . CCTV has been installed at the exit check post. Security Guards at the check post has been posted at exit point to ensure the strict compliance.	-	-	CPCB/UPP CB
		Effective tire washing facility for transport vehicles	-	Proposal of tyre washing facility at Dudhichua Project is in final stage of completion.	-	May, 2023	CPCB/UPP CB
		Treatment and disposal of MSW generated in the residential colony	-	Wet waste is converted to compost and Dry waste is handled by Singrauli Municipal Corporation.	-	-	CPCB/UPP CB
		Submission of time-bound action plan for compliance with the provision of the Notification of 2009 regarding utilization of 25% fly ash along with Over Burden (OB) for back-filling the abandoned mine	-	Field study at NCL in an operational mine related to mine backfilling through fly ash and its stability analysis is under approval stage. Tentative schedule of completion is by December 2023. Action plan will be submitted on the basis of recommendations of above mentioned study.	-	Dec, 2023	CPCB/UPP CB

SI No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/Dept.
			Completed	Ongoing	Yet to be Started		
7.	M/s Northern Coalfields Limited (NCL) (NCL Kakri Project, Sonbhadra)	Ensure that no treated or untreated effluent will be discharged into the Rihand reservoir through the drain	-	Compliance is being ensured. Nos fixed fog cannon is also in process of being hired.	-	May-23	CPCB/UPPCB
		Entrapment of seepage in the drain at mine water collection sump	Complied	-	-	-	CPCB/UPPCB
		Strengthening of the vigilance mechanism to identify the default transporters and take stringent action against them	Complied				CPCB/UPPCB
		Explore the possibility to monitor the status of fugitive emissions through the existing CCTV network provided for monitoring of production activities.	-	-	-Monitoring of fugitive emissions inside the mines is being done through CMPDIL each fortnightly, and report is being communicated to UPPCB quarterly. CCTV have been installed only at strategic positions in mines. Monitoring of fugitive emissions throughout the mines through CCTV is not possible.	-	CPCB/UPPCB
		Effective tyre washing facility for transport vehicles	-	In progress	-	May, 2023	UPPCB
		Treatment and disposal of MSW generated in the residential colony	-	The work has been commenced.	-	-	UPPCB
		Submission of time-bound action plan for compliance with the provision of the Notification of 2009 regarding utilization of 25% fly ash along with Over Burden (OB) for back-filling the abandoned mine.		Field study at NCL in one mine related to mine Backfilling through Fly Ash and its stability analysis is under approval stage. Tentative schedule of completion is by December 2023. Action plan will be submitted on the basis of recommendations of above mentioned study.		Dec, 2023	CPCB/UPPCB
		Open the site of CAAQMS from all the direction	Complied	-	-	-	-

SI No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/Dept.
			Completed	Ongoing	Yet to be Started		
8.	M/s Northern Coalfields Limited (NCL) Khadia Project, Sonbhadra)	Continuous operations of the ETP	Yes	Compliance being ensured	-	-	-
		Ensure that no treated/untreated effluent will be discharged in to the environment	Complied	-	-	-	CPCB/UPPCB
		Regular operation of the water spraying system for effective control of fugitive dust emissions	-	Complied. Installation of 3 nos. of additional fixed fog cannon in progress	-	May'2023	CPCB/UPPCB
		Strengthening of the vigilance mechanism to identify the default transporters and take stringent action against them	CCTV cameras installed. Truck without tarpaulin covering not allowed. One register has also been put at the Exit Gates for documenting any such violation and to take action against the security personnel manning the exit gates as well as against the defaulter trucks, if any.	-	-	-	CPCB/UPPCB
		Effective tyre washing facility for transport vehicles	-	In progress	-	May'2023	CPCB/UPPCB
		Proper treatment and disposal of MSW generated in the residential colony	-	In progress	-	April'2023	CPCB/UPPCB
		Submission of time-bound action plan for compliance with the provision of the Notification of 2009 regarding utilization of 25% fly ash along with Over Burden (OB) for back-filling the abandoned mine	-	Field study at NCL in one mine related to mine Backfilling through Fly Ash and its stability analysis is under approval stage. Action plan will be submitted on the basis of recommendations of above mentioned study.	-	Dec'2023	CPCB/UPPCB
		Ensure that the site of CAAQMS is open from all the direction	Complied	-	-	-	CPCB/UPPCB

SI No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/Dept.
			Completed	Ongoing	Yet to be Started		
8.	M/s Northern Coalfields Limited (NCL) Khadia Project, Sonbhadra)	Continuous operations of the ETP	Yes	Compliance being ensured	-	-	-
		Ensure that no treated/untreated effluent will be discharged in to the environment	Complied	-	-	-	CPCB/UPPCB
		Regular operation of the water spraying system for effective control of fugitive dust emissions	-	Complied. Installation of 3 nos. of additional fixed fog cannon in progress	-	May'2023	CPCB/UPPCB
		Strengthening of the vigilance mechanism to identify the default transporters and take stringent action against them	CCTV cameras installed. Truck without tarpaulin covering not allowed. One register has also been put at the Exit Gates for documenting any such violation and to take action against the security personnel manning the exit gates as well as against the defaulter trucks, if any.	-	-	-	CPCB/UPPCB
		Effective tyre washing facility for transport vehicles	-	In progress	-	May'2023	CPCB/UPPCB
		Proper treatment and disposal of MSW generated in the residential colony	-	In progress	-	April'2023	CPCB/UPPCB
		Submission of time-bound action plan for compliance with the provision of the Notification of 2009 regarding utilization of 25% fly ash along with Over Burden (OB) for back-filling the abandoned mine	-	Field study at NCL in one mine related to mine Backfilling through Fly Ash and its stability analysis is under approval stage. Action plan will be submitted on the basis of recommendations of above mentioned study.	-	Dec'2023	CPCB/UPPCB
		Ensure that the site of CAAQMS is open from all the direction	Complied	-	-	-	CPCB/UPPCB

SI No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/Dept.
			Completed	Ongoing	Yet to be started		
9.	M/s Northern Coalfields Limited (NCL) (NCL Krishna Shila Project)	Explore the possibility to monitor the status of fugitive emissions through the existing CCTV network provided for monitoring of production activities.	62 CCTVs installed at different points in the mine. Monitoring of fugitive emissions is being done regularly from field and GM office.	-	-	-	CPCB/UPPCB
		Strengthening of the vigilance mechanism to identify the default transporters and take stringent action against them	The Transportation agencies have been instructed. Strict action are being taken against the uncovered trucks if found.	-	-	-	CPCB/UPPCB
		Effective tyre washing facility for transport vehicles	-	In progress. Tyre washing facility to be jointly developed for Bina and Krishnashila projects.	-	31.03. 2023	CPCB/UPPCB
		Proper treatment and disposal of MSW generated in their residential colony	-	The proposal for proper treatment and disposal of MSW generated in the residential colony is under tendering process.	-	30.06. 2023	CPCB/UPPCB
		Submission of the time-bound action plan for compliance with the provision of the Notification of 2009 regarding utilization of 25% fly ash along with Over Burden (OB) for back-filling the abandoned mine.	-		For utilization of fly ash, NCL had provided one pit of abandoned/closed Gorbi Mine to NTPC-Vindhyachal (VSTPP). MoU between NCL and NTPC-VSTPS has been done on 3rd Jan, 2019. Approx. 30 to 40 Million tons of fly ash will be accommodated in to this mine void. Field study at NCL in one mine related to mine Backfilling through Fly Ash and its stability analysis is under approval stage. Tentative schedule of completion is by December 2023. Action plan will be submitted on the basis of recommendations of above mentioned study.	Dec-23	CPCB/UPPCB

SI No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/Dept.
			Completed	Ongoing	Yet to be started		
10.	Aluminum Smelter: M/s HINDALCO Industries Renukoot, Sonbhadra Ltd,	Take corrective measures to achieve the ZLD	ZLD status achieved. Process Water Recycling Plant (PWRP) has been installed.	-	-	-	UPPCB
		Ensure environment friendly disposal for the huge quantity of bottom ash stored in open inside the plant premises	ZLD status achieved. Process Water Recycling Plant (PWRP) has been installed.	-	-	-	CPCB/UPPCB
		Proper treatment and disposal of the MSW	-	Collected non-biodegradable waste is segregated for further disposal through re-processors/recyclers. Biodegradable waste is converted into vermicompost for inhouse utilization in our horticultural activities. Procurement of equipment's for segregation of collected waste category wise is in progress. Installation of new machines requisite civil and electrical job is in progress	-	-	CPCB/UPPCB
		Undertake corrective measures to control the fugitive emission effectively	Dust Extraction & Dust Suppression System is installed at coal discharge point and conveyors. Rain guns in yard periphery used for controlling dust in coal storage area. Stacker mouths discharge are mounted with water sprinklers in all the crushers in coal handling plant area.	-	-	-	CPCB/UPPCB

SI No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/Dept.
			Completed	Ongoing	Yet to be started		
11.	M/s Grasim Industries Limited Chemical Division, Renukoot, Sonbhadra	Submission of the clarification regarding the discharge of chemically contaminated effluent into the drain	Action plan not required. Unit is ZLD. Already installed ETP, RO, MEE and STP and achieved Zero Liquid Discharge since 2017. Intimation to the Board about installation and commissioning of ZLD is done vide our letter No. GIL/ENV/17-18/204 dated 17.11.2017.	-	-	NA	CPCB/ UPPCB
		Ensure environment friendly disposal of all the brine sludge stored in open pit	Fully complied. At present no legacy brine sludge is stored inside the plant premises.	-	-	-	CPCB/ UPPCB
		Completion of the remediation activities in the time bound manner of the area wherein the ash has been dumped	Complied. Process of reclamation has already been successfully completed.	-	-	-	CPCB/ UPPCB
		Preparation and execution of an action plan to shift the mercury bearing brine sludge and the muck contaminated with chlorinated chemicals from the factory premises to the TSDF in consultation with the UPPCB	•Matter sub-judiced before Hon'ble Apex Court. •On the basis of the Report of NEERI, Hon'ble Supreme Court has pleased to grant a stay against the NGT proceeding vide order dated 04.11.2019. In the interest of justice, it would be advisable to keep this issue in abeyance, till issue is disposed of by the Hon'ble Apex Court. Intimation through e-mail dated 14.11.2022 along with and Hard Copy, has been sent to MoEFCC.	-	-	-	CPCB/ UPPCB

SI No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/ Dept.
			Completed	Ongoing	Yet to be started		
12.	M.P. Power Generating Co. Ltd. (MPPGCL)	To check the strength of the bunds created around the dykes/low lying areas quarterly and one time especially before the on-set of the monsoon through expert agencies of repute and to submit Action Taken Reports to regional offices of MPPCB, CPCB & MoEF&CC periodically.	Ash dykes are proper & scientifically designed and present status is good for technical soundness, structural strength, stability, safety and is structurally sustainable and safe for adequacy for handling of fly ash generated from TPSs. Advised to monitor the performance of the dyke using geotechnical instrumentation. Report submitted to MPPCB vide no. 2235 dated: 10/12/2019. To comply with NGT order dated: 18/01/2022.	-	-	-	CPCB/ MPPCB
		To obtain prior permission from MPPCB before any disposal of fly ash / bottom ash in the low lying areas and ensure disposal as per the CPCB guideline.	The condition is regularly prescribed by MPPCB during the renewal of Consent to Operate (CTO) every year and same is being complied by the thermal power stations of MPPGCL as and when required. Action plan for fly ash utilization has been submitted	-	---	Timeline for ash utilization 31.03.2023	CPCB/ MPPCB
13.	M/s Birla Carbon India Pvt. Ltd., Renukoot, Sonbhadra	Strict vigilance on the area from where the effluent was earlier reaching outside the plant boundary	-	The company has installed ETP & STP for treating effluent and sewage and achieved Zero liquid discharge since 2011.	-	-	CPCB/ UPPCB

Sl No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/ Dept.
			Completed	Ongoing	Yet to be started		
14.	M/s Obra Thermal Power Station (Power Plant)	Undertake action to trap the continuous flow of ash slurry from powerhouse and ash pond overflow water carrying ash into the river Renu	Ash dyke has been raised and there is no overflow of water carrying ash into river Renu. AWRS has been made functional for recycling of ash water.	-	-	-	1127 CPCB/UPPCB
		Restoration of the river bed areas on which a huge deposition of ash is visible in time-bound manner	-	Restoration of river bed area is under progress and 7800 Cum ash has been removed. Remaining quantity shall be done by June-2023.	-	Jun-23	
		Treatment of the industrial effluent, untreated effluent not to be discharged into the river Renu	-	ETP & STP are operational. No effluent is being discharged into river Renu.	-	-	
		Installation of an effluent collection and conveyance system for ETP & STP	A dedicated sump and sump pump house for all effluent collection has been completed and functional since April-2022.	-	-	-	
		Connection of CAAQMS to the CPCB/SPCB server	Already connected. Data is available on CPCB/SPCB server.	-	-	-	
		Submission of time-bound action plan for 100% fly ash utilization	-	Action plan submitted.	-	-	
		Installation and commissioning of the FGD system in realization of the revised timeline	-	-	Due to space constraint for installation of wet FGD system, Dry Sorbent Injection FGD was approved. Further tendering is under progress.	-	
		Adoption of scientific approach for treatment and disposal of MSW	-	Door to Door collection of waste is being done and segregated as Dry and Wet waste. Tender for treatment and disposal of MSW will be floated by 5.12.2022.	-	April, 23	
		Installation of flow meters for measuring amount of ash slurry discharged and water recycled through AWRS	-	Flow meter supplied and installation shall be done by 20.12.2022.	-	Dec., 22	
		Installation of flow meters for measuring the amount of wastewater treated through the ETP and STP	-	Flow meter supplied and installation shall be done by 20.12.2022.	-	Dec., 22	
		Fixing the personal responsibility of the officers seating at management level for causing environmental damage.	Responsibility of three officers of Chief Engineer level been fixed and disciplinary proceedings have been initiated.	-	-		CPCB/UPPCB

SI No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/ Dept.
			Completed	Ongoing	Yet to be started		
15.	M/s Anpara Thermal Power Plant (Power Plant)	Installation of flow meters to measure the amount of ash slurry discharged into the ash pond and the amount of water recovered and recycled	-	Flow meter has been installed in Units B & D and their commissioning will be completed by 15.12.2022. Commissioning in Unit A shall be completed by January-2023.	-	Jan-23	UPPCB
		Entrapment of wastewater discharge containing ash into the Rihand reservoir through the drain at power house area	-	Installation of ETP for Anpara A & B is in progress and is likely to be completed by July-2023. Entrapment of waste water discharge is included in the scope of ETP contract.	-	Jul-23	UPPCB/CPCB
		Submission of explanation for not achieving ZLD in ETP & STP		Anpara A & B are more than 25 years old and there was no provision of ETP & STP. STP has been installed. Installation of ETP for Units A & B is in progress and will be completed by July-2023.	-	-	UPPCB/CPCB
		Submission of a time-bound action plan for achieving ZLD	-	STP has been installed. Installation of ETP for Units A & B is in progress and will be completed by July-2023.		Jul-23	UPPCB/CPCB
		Removal of deposited fly ash on the surface of the Rihand reservoir in time-bound manner	33000 Cum of fly ash deposited on the surface of the reservoir has been removed.	-	-	-	UPPCB/CPCB
		Submission of time-bound action plan for 100% fly ash utilization	-	Action plan has been submitted.	-	-	UPPCB/CPCB
		Provision to prevent the surface runoff water from the surrounding area reaching the ash dyke	Raising of the ash dyke done. There is no surface runoff water coming inside the ash dyke (except rain water of Morcha Nala).	-	-	-	
		Installation and commissioning of the FGD system in realization of the revised timeline	-	-	Installation of FGD in Unit D under progress and is likely to be completed by Dec 2023. Retendering was done and the latest bid was rejected as it was 106% higher than the estimate. Next bid will be floated by 30.11.2022.	Dec, 2023	UPPCB

Thanks

Action Plans based on the recommendations of the Joint Committee

SI No.	Stakeholders	Actions	Status			Timelines for Completion	Enforcement Agency/ Dept.
			Completed	Ongoing	Yet to be started		
1.	M/s NTPC Limited (Singrauli) Shakti Nagar Sonbhadra	Take measures to stop the discharge of ash pond overflow into the Rihand reservoir	Discharge of ash pond overflow has been stopped.	Augmentation of AWRS capacity by installing another pump (2000 m ³ /hr. capacity).	-	July, 23	MPPCB
		Relocation of the OCEMS in order to achieve the desired iso-kinetic sampling for particulate matter	OCEMS is working in NTPC Singrauli.	OCEMS at Chimney will be installed along with FGD installation.	-	Dec, 26(As per FGD Timeline)	MPPCB
		Installation of third CAAQMS	Installed	-	-	-	MPPCB
		Connection of CAAQMS to the CPCB/SPCB server	Connected	-	-	-	MPPCB
		Submission of a time-bound action plan for 100% fly ash utilization	-	Action Plan submitted	-	-	MPPCB
		Installation and commissioning of the FGD system in realization of the revised timeline	-	Work of absorber and associated work is in progress. All three Chimneys construction have been completed. Efforts are being made to complete FGD installation.	-	Commissioning by Dec'26(As per FGD Timeline)	MPPCB
		Treatment of the MSW generated from their residential colony	-	Bio-methanation plant has been commissioned. Composting pits with covered shed are being constructed. Non-biodegradable waste (plastic waste) is being sent to registered recycler.	-	October, 23	MPPCB
		Undertake immediate measures to control fugitive emission in ash dyke area	-	Measures for regular water sprinkling have been taken and fugitive emission is under control in the dyke area.	-	-	MPPCB

Sl No.	Stakeholders	Actions	Status			Timelines for Completion	Enforcement Agency/ Dept.
			Completed	Ongoing	Yet to be started		
2.	M/s NTPC Rihand Super Thermal Power (Power Plant)	Connection of CAAQMS to the CPCB/SPCB server	Connected to CPCB/UPPCB server	-	-	-	CPCB/UPPCB
		Submission of a time-bound action plan for 100% fly ash utilization	-	Action Plan Submitted	-	-	CPCB/UPPCB
		Installation and commissioning of the FGD system in realization of the revised timeline	-	Civil and mechanical works for installation of FGD are in progress in full swing	-	Dec'26(As per FGD Timeline)	CPCB/UPPCB
3.	M/s NTPC Limited Vindhyachal Super Thermal Power Plant	Submission of a time-bound action plan for 100% fly ash utilization	-	Action Plan submitted	-	-	CPCB/UPPCB
		Explore possibilities for the construction of Ash mounds and submission of progress from time to time	NA	NA	NA	NA	CPCB/UPPCB

Sl No.	Stakeholders	Actions	Status			Timelines for Completion	Enforcement Agency/ Dept.
			Completed	Ongoing	Yet to be started		
4.	M/s Renusagar Thermal Power Plant	Installation of sludge drying beds in the existing ETP	Installation of 02 No. Filter Press (of modern technology sludge drying beds) has been completed (Commissioning started)	Commissioning of the filter expected to be completed by end of November 2022	-	Nov, 2022	CPCB/UPPCB
		Relocation of the OCEMS in order to achieve the desired iso-kinetic sampling for particulate matter	For isokinetic sampling, installed new analyzers for Boiler#6 to #10	Connectivity with CPCB server to be provided	-	Connectivity by January, 2023	CPCB/UPPCB
		Submission of time bound action plan to relocate the existing CAAQMS	Relocated the existing 01 No. CAAQMS at lower altitude near Civil Office in March 2022. Data is linked with CPCB/SPCB server.	-	-	-	CPCB/UPPCB
		Completion of installation of another 02 CAAQMS	Installed	-	-	-	CPCB/UPPCB
		Connection of CAAQMS to the CPCB/SPCB server	Connected	-	-	-	CPCB/UPPCB
		Submission of time-bound action plan for 100% fly ash utilization	-	Action plan submitted	-	-	CPCB/UPPCB
		Installation and commissioning of the FGD system in realization of the revised timeline	-	Installation is expected to be completed by December 2023	-	Dec-23	CPCB/UPPCB
		Adoption of scientific approach for disposal of MSW	-	Non-biodegradable waste is being sent to vendors and Biodegradable waste is being converted to compost for in-house utilization	-	-	CPCB/UPPCB

		Undertake corrective measures to control the fugitive emissions from raw material storage and fly ash transportation areas	-	Waste sprinkling arrangements and rain guns are installed. Additional water sprinkling system installed	-	-	CPCB/UPPCB
		Submission of explanation for dumping the fly ash in haphazard manner	Ash disposed in haphazard manner has been reclaimed and area has been further cleaned	-	-	-	CPCB/UPPCB
		Undertake immediate action for proper disposal of fly ash					

SI No.	Stakeholders	Actions	Status			Timelines for Completion	Enforcement Agency/ Dept.
			Completed	Ongoing	Yet to be started		
5.	M/s Northern Coalfields Limited (NCL) (NCL Bina Project, Bina, Sonbhadra)	Submission of time bound action plan for controlling the fire in the coal stock yard	-	Action Plan submitted	-	-	CPCB/UPPCB
		Explore the possibility to monitor the status of fugitive emissions through the existing CCTV network provided for monitoring of production activities	-	A log book is being kept in CCTV Control Room and record fugitive emissions visible in CCTV cameras and corrective action taken on the report.	-	-	CPCB/UPPCB
		Strengthening of the vigilance mechanism to identify the default transporters and take stringent action against them	-	Compliance of fully tarapualin covered trucks is being ensured	-	-	CPCB/UPPCB
		Effective tyre washing facility for transport vehicles		Tendering process for tyre washing facility has been completed and LOA has been issued		Mar-23	CPCB/UPPCB
		Treatment and disposal of MSW generated in the residential colony	-	Proper treatment and disposal of MSW generated in residential colony is ensured.	-	-	CPCB/UPPCB

		Submission of time-bound action plan for compliance with the provision of the Notification of 2009 regarding utilization of 25% fly ash along with Over Burden (OB) for back-filling the abandoned mine.	-	-	Field study at NCL in one mine related to mine Backfilling through Fly Ash and its stability analysis is under approval stage. Tentative schedule of completion is by December 2023. Action plan will be submitted on the basis of recommendations of above mentioned study	Dec, 23	CPCB/UPPCB
		Take corrective measures so that the site of CAAQMS is open from all directions	-	This being complied. Trees within the close vicinity of CAAQMS have been trimmed to minimize hindrance at the site.	-	-	UPPCB

SI No.	Stakeholders	Actions	Status			Timelines for Completion	Enforcement Agency/ Dept.
			Completed	Ongoing	Yet to be started		
6.	M/s Northern Coalfields Limited (NCL) (NCL Dudhichuwa Project, Sonbhadra)	Regular operations of ETP	-	Continuous operation of ETP is ensured	-	-	CPCB/UPPCB
		Utilization of the treated effluent to achieve zero discharge	-	Treated Effluent from ETP is used in Water sprinkling, Fire fighting and wahsing of HEMM and zero discharge is maintained.	-	-	CPCB/UPPCB
		Ensure that no treated/untreated effluent will be discharged into the Balia Nalla which finally meets the Rihand reservoir	-	Water from various sources is pumped to ETP. Treated Effluent from ETP is being used in water sprinkling, fire fighting and wahsing of HEMM.	-	-	CPCB/UPPCB
		Explore the possibility to monitor the status of fugitive emissions through the existing CCTV network provided for monitoring of production activities	-	CCTV network is utilized for monitoring of fugitive emissions. In case of appearance of fugitive emissions on CCTV, immediate action is taken.	-	-	CPCB/UPPCB
		Strengthen the vigilance mechanism to identify the default transporters and take stringent action against them	-	Only tarapauline covered trucks are allowed. CCTV has been installed at the exit check post. Security Guards at the check post has been posted at exit point to ensure the strict compliance.	-	-	CPCB/UPPCB
		Effective tire washing facility for transport vehicles	-	Proposal of tyre washing facility at Dudhichua Project is in final stage of completion.	-	May, 2023	CPCB/UPPCB
		Treatment and disposal of MSW generated in the residential colony	-	Wet waste is converted to compost and Dry waste is handled by Singrauli Municipal Corporation.	-	-	CPCB/UPPCB
		Submission of time-bound action plan for compliance with the provision of the Notification of 2009 regarding utilization of 25% fly ash along with Over Burden (OB) for back-filling the abandoned mine	-	Field study at NCL in an operational mine related to mine backfilling through fly ash and its stability analysis is under approval stage. Tentative schedule of completion is by December 2023. Action plan will be submitted on the basis of recommendations of above mentioned study.	-	Dec, 2023	CPCB/UPPCB

SI No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/Dept.
			Completed	Ongoing	Yet to be Started		
7.	M/s Northern Coalfields Limited (NCL) (NCL Kakri Project, Sonbhadra)	Ensure that no treated or untreated effluent will be discharged into the Rihand reservoir through the drain	-	Compliance is being ensured. Nos fixed fog cannon is also in process of being hired.	-	May-23	CPCB/UPPCB
		Entrapment of seepage in the drain at mine water collection sump	Complied	-	-	-	CPCB/UPPCB
		Strengthening of the vigilance mechanism to identify the default transporters and take stringent action against them	Complied				CPCB/UPPCB
		Explore the possibility to monitor the status of fugitive emissions through the existing CCTV network provided for monitoring of production activities.	-	-	-Monitoring of fugitive emissions inside the mines is being done through CMPDIL each fortnightly, and report is being communicated to UPPCB quarterly. CCTV have been installed only at strategic positions in mines. Monitoring of fugitive emissions throughout the mines through CCTV is not possible.	-	CPCB/UPPCB
		Effective tyre washing facility for transport vehicles	-	In progress	-	May, 2023	UPPCB
		Treatment and disposal of MSW generated in the residential colony	-	The work has been commenced.	-	-	UPPCB

		Submission of time-bound action plan for compliance with the provision of the Notification of 2009 regarding utilization of 25% fly ash along with Over Burden (OB) for back-filling the abandoned mine.		Field study at NCL in one mine related to mine Backfilling through Fly Ash and its stability analysis is under approval stage. Tentative schedule of completion is by December 2023. Action plan will be submitted on the basis of recommendations of above mentioned study.		Dec, 2023	CPQB/ UPPCB
		Open the site of CAAQMS from all the direction	Complied	-	-	-	-

SI No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/Dept.
			Completed	Ongoing	Yet to be Started		
8.	M/s Northern Coalfields Limited (NCL) (NCL Khadia Project, Sonbhadra)	Continuous operations of the ETP	Yes	Compliance being ensured	-	-	-
		Ensure that no treated/untreated effluent will be discharged in to the environment	Complied	-	-	-	CPCB/UPPCB
		Regular operation of the water spraying system for effective control of fugitive dust emissions	-	Complied. Installation of 3 nos. of additional fixed fog cannon in progress	-	May'2023	CPCB/UPPCB
		Strengthening of the vigilance mechanism to identify the default transporters and take stringent action against them	CCTV cameras installed. Truck without tarpaulin covering not allowed. One register has also been put at the Exit Gates for documenting any such violation and to take action against the security personnel manning the exit gates as well as against the defaulter trucks, if any.	-	-	-	CPCB/UPPCB
		Effective tyre washing facility for transport vehicles	-	In progress	-	May'2023	CPCB/UPPCB
		Proper treatment and disposal of MSW generated in the residential colony	-	In progress	-	April'2023	CPCB/UPPCB

		Submission of time-bound action plan for compliance with the provision of the Notification of 2009 regarding utilization of 25% fly ash along with Over Burden (OB) for back-filling the abandoned mine	-	Field study at NCL in one mine related to mine Backfilling through Fly Ash and its stability analysis is under approval stage. Action plan will be submitted on the basis of recommendations of above mentioned study.	-	Dec'2023	CPCB/ UPPCB
		Ensure that the site of CAAQMS is open from all the direction	Complied	-	-	-	CPCB/ UPPCB

SI No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/Dept.
			Completed	Ongoing	Yet to be started		
9.	M/s Northern Coalfields Limited (NCL) (NCL Krishna Shila Project)	Explore the possibility to monitor the status of fugitive emissions through the existing CCTV network provided for monitoring of production activities.	62 CCTVs installed at different points in the mine. Monitoring of fugitive emissions is being done regularly from field and GM office.	-	-	-	CPCB/UPPCB
		Strengthening of the vigilance mechanism to identify the default transporters and take stringent action against them	The Transportation agencies have been instructed. Strict action are being taken against the uncovered trucks if found.	-	-	-	CPCB/UPPCB
		Effective tyre washing facility for transport vehicles	-	In progress. Tyre washing facility to be jointly developed for Bina and Krishnashila projects.	-	31.03.2023	CPCB/UPPCB
		Proper treatment and disposal of MSW generated in their residential colony	-	The proposal for proper treatment and disposal of MSW generated in the residential colony is under tendering process.	-	30.06.2023	CPCB/UPPCB

		Submission of the time-bound action plan for compliance with the provision of the Notification of 2009 regarding utilization of 25% fly ash along with Over Burden (OB) for back-filling the abandoned mine.	-		For utilization of fly ash, NCL had provided one pit of abandoned/closed Gorbi Mine to NTPC-Vindhyachal (VSTPP). MoU between NCL and NTPC-VSTPS has been done on 3rd Jan, 2019. Approx. 30 to 40 Million tons of fly ash will be accommodated in to this mine void. Field study at NCL in one mine related to mine Backfilling through Fly Ash and its stability analysis is under approval stage. Tentative schedule of completion is by December 2023. Action plan will be submitted on the basis of recommendations of above mentioned study.	Dec-23	CPCB/ UPPCB
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SI No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/Dept.
			Completed	Ongoing	Yet to be started		
10.	Aluminum Smelter: M/s HINDALCO Industries Ltd, Renukoot, Sonbhadra	Take corrective measures to achieve the ZLD	ZLD status achieved. Process Water Recycling Plant (PWRP) has been installed.	-	-	-	UPPCB
		Ensure environment friendly disposal for the huge quantity of bottom ash stored in open inside the plant premises	ZLD status achieved. Process Water Recycling Plant (PWRP) has been installed.	-	-	-	CPCB/UPPCB
		Proper treatment and disposal of the MSW	-	Collected non-biodegradable waste is segregated for further disposal through re-processors/recyclers. Biodegradable waste is converted into vermicompost for inhouse utilization in our horticultural activities. Procurement of equipment's for segregation of collected waste category wise is in progress. Installation of new machines requisite civil and electrical job is in progress	-	-	CPCB/UPPCB
		Undertake corrective measures to control the fugitive emission effectively	Dust Extraction & Dust Suppression System is installed at coal discharge point and conveyors. Rain guns in yard periphery used for controlling dust in coal storage area. Stacker mouths discharge are mounted with water sprinklers in all the crushers in coal handling plant area.	-	-	-	CPCB/UPPCB

SI No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/Dept.
			Completed	Ongoing	Yet to be started		
11.	M/s Grasim Industries Limited Chemical Division, Renukoot, Sonbhadra	Submission of the clarification regarding the discharge of chemically contaminated effluent into the drain	Action plan not required. Unit is ZLD. Already installed ETP, RO, MEE and STP and achieved Zero Liquid Discharge since 2017. Intimation to the Board about installation and commissioning of ZLD is done vide our letter No. GIL/ENV/17-18/204 dated 17.11.2017.	-	-	NA	CPCB/ UPPCB
		Ensure environment friendly disposal of all the brine sludge stored in open pit	Fully complied. At present no legacy brine sludge is stored inside the plant premises.	-	-	-	CPCB/ UPPCB
		Completion of the remediation activities in the time bound manner of the area wherein the ash has been dumped	Complied. Process of reclamation has already been successfully completed.	-	-	-	CPCB/ UPPCB
		Preparation and execution of an action plan to shift the mercury bearing brine sludge and the muck contaminated with chlorinated chemicals from the factory premises to the TSDF in consultation with the UPPCB	- Matter sub-judiced before Hon'ble Apex Court. - On the basis of the Report of NEERI, Hon'ble Supreme Court has pleased to grant a stay against the NGT proceeding vide order dated 04.11.2019. In the interest of justice, it would be advisable to keep this issue in abeyance, till issue is disposed of by the Hon'ble Apex Court. Intimation through e-mail dated 14.11.2022 along with and Hard Copy, has been sent to MoEFCC.	-	-	-	CPCB/ UPPCB

Sl No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/ Dept.
			Completed	Ongoing	Yet to be started		
12.	M.P. Power Generating Co. Ltd. (MPPGCL)	To check the strength of the bunds created around the dykes/low lying areas quarterly and one time especially before the on-set of the monsoon through expert agencies of repute and to submit Action Taken Reports to regional offices of MPPCB, CPCB & MoEF&CC periodically.	Ash dykes are proper & scientifically designed and present status is good for technical soundness, structural strength, stability, safety and is structurally sustainable and safe for adequacy for handling of fly ash generated from TPSS. Advised to monitor the performance of the dyke using geotechnical instrumentation. Report submitted to MPPCB vide no. 2235 dated: 10/12/2019. To comply with NGT order dated: 18/01/2022.	-	-	-	CPCB/ MPPCB
		To obtain prior permission from MPPCB before any disposal of fly ash / bottom ash in the low lying areas and ensure disposal as per the CPCB guideline.	The condition is regularly prescribed by MPPCB during the renewal of Consent to Operate (CTO) every year and same is being complied by the thermal power stations of MPPGCL as and when required. Action plan for fly ash utilization has been submitted	-	---	Timeline for ash utilization 31.03.2023	CPCB/ MPPCB
13.	M/s Birla Carbon India Pvt. Ltd., Renukoot, Sonbhadra	Strict vigilance on the area from where the effluent was earlier reaching outside the plant boundary	-	The company has installed ETP & STP for treating effluent and sewage and achieved Zero liquid discharge since 2011.	-	-	CPCB/ UPPCB

SI No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/ Dept.
			Completed	Ongoing	Yet to be started		
14.	M/s Obra Thermal Power Station (Power Plant)	Undertake action to trap the continuous flow of ash slurry from powerhouse and ash pond overflow water carrying ash into the river Renu	Ash dyke has been raised and there is no overflow of water carrying ash into river Renu. AWRS has been made functional for recycling of ash water.	-	-	-	CPCB/UPPCB
		Restoration of the river bed areas on which a huge deposition of ash is visible in time-bound manner	-	Restoration of river bed area is under progress and 7800 Cum ash has been removed. Remaining quantity shall be done by June-2023.	-	Jun-23	CPCB/UPPCB
		Treatment of the industrial effluent, untreated effluent not to be discharged into the river Renu	-	ETP & STP are operational. No effluent is being discharged into river Renu.	-	-	CPCB/UPPCB
		Installation of an effluent collection and conveyance system for ETP & STP	A dedicated sump and sump pump house for all effluent collection has been completed and functional since April-2022.	-	-	-	CPCB/UPPCB
		Connection of CAAQMS to the CPCB/SPCB server	Already connected. Data is available on CPCB/SPCB server.	-	-	-	CPCB/UPPCB
		Submission of time-bound action plan for 100% fly ash utilization	-	Action plan submitted.	-	-	CPCB/UPPCB

		Installation and commissioning of the FGD system in realization of the revised timeline	-	-	Due to space constraint for installation of wet FGD system, Dry Sorbent Injection FGD was approved. Further tendering is under progress.	-	CPCB/UPPCB
		Adoption of scientific approach for treatment and disposal of MSW	-	Door to Door collection of waste is being done and segregated as Dry and Wet waste. Tender for treatment and disposal of MSW will be floated by 5.12.2022.	-	April, 23	CPCB/UPPCB
		Installation of flow meters for measuring amount of ash slurry discharged and water recycled through AWRS	-	Flow meter supplied and installation shall be done by 20.12.2022.	-	Dec., 22	CPCB/UPPCB
		Installation of flow meters for measuring the amount of wastewater treated through the ETP and STP	-	Flow meter supplied and installation shall be done by 20.12.2022.	-	Dec., 22	CPCB/UPPCB
		Fixing the personal responsibility of the officers seating at management level for causing environmental damage.	Responsibility of three officers of Chief Engineer level been fixed and disciplinary proceedings have been initiated.	-	-		CPCB/UPPCB

SI No.	Stakeholder	Actions	Status			Timeline	Enforcement Agency/ Dept.
			Completed	Ongoing	Yet to be started		
15.	M/s Anpara Thermal Power Plant (Power Plant)	Installation of flow meters to measure the amount of ash slurry discharged into the ash pond and the amount of water recovered and recycled	-	Flow meter has been installed in Units B & D and their commissioning will be completed by 15.12.2022. Commissioning in Unit A shall be completed by January-2023.	-	Jan-23	UPPCB
		Entrapment of wastewater discharge containing ash into the Rihand reservoir through the drain at power house area	-	Installation of ETP for Anpara A & B is in progress and is likely to be completed by July-2023. Entrapment of waste water discharge is included in the scope of ETP contract.	-	Jul-23	UPPCB/CPCB
		Submission of explanation for not achieving ZLD in ETP & STP	-	Anpara A & B are more than 25 years old and there was no provision of ETP & STP. STP has been installed. Installation of ETP for Units A & B is in progress and will be completed by July-2023.	-	-	UPPCB/CPCB
		Submission of a time-bound action plan for achieving ZLD	-	STP has been installed. Installation of ETP for Units A & B is in progress and will be completed by July-2023.	-	Jul-23	UPPCB/CPCB
		Removal of deposited fly ash on the surface of the Rihand reservoir in time-bound manner	33000 Cum of fly ash deposited on the surface of the reservoir has been removed.	-	-	-	UPPCB/CPCB

		Submission of time-bound action plan for 100% fly ash utilization	-	Action plan has been submitted.	-	-	UPPCB/CPCB
		Provision to prevent the surface runoff water from the surrounding area reaching the ash dyke	Raising of the ash dyke done. There is no surface runoff water coming inside the ash dyke (except rain water of Morcha Nala).	-	-	-	
		Installation and commissioning of the FGD system in realization of the revised timeline	-	-	Installation of FGD in Unit D under progress and is likely to be completed by Dec 2023. Retendering was done and the latest bid was rejected as it was 106% higher than the estimate. Next bid will be floated by 30.11.2022.	Dec, 2023	UPPCB

Annexure IV

SI No.	Action	Status	Timeline	Enforcement Agency/Dept.
1	Constitution of Committee for to examine and review and recommend the eco-friendly ways of utilisation of ash, <i>Para A(3)</i>	Completed	-	CPCB
2	100% Utilisation of current ash by thermal power plants as per timelines, <i>Para A(4)</i>	Ongoing	As prescribed	SPCB/PCC
3	Guidelines for procedure for annual certification of the ash pond or dyke on its safety, environmental pollution, available volume, mode of disposal, water consumption or conservation in disposal, ash water recycling and greenbelt etc., <i>Para A(6)</i>	Ongoing	Immediate	CPCB and CEA
4	Loading, unloading, transport, storage and disposal of ash to be done in an environmentally sound manner by thermal power plants and all precautions to prevent air and water pollution to be taken and status to be reported to concerned SPCB/PCC, <i>Para A(7)</i>	Ongoing	Immediate	CPCB and SPCB/PCC
5	Installation of dedicated silos by TPPs for storage of dry fly ash for at least sixteen hours of ash based on installed capacity and report to concerned SPCB/PCC, inspection to be done by CPCB/SPCB/PCC from time to time, <i>Para A(8)</i>	Ongoing	Immediate	CPCB and SPCB/PCC
6	Thermal power plants to provide real time data daily regarding the availability of ash by providing the link to CPCB's web portal or mobile phone app, <i>Para A(9)</i>	To be started	Immediate	CPCB and SPC/PCC
7	Mandatory utilisation of ash by government, semi-government and private agencies for construction activities within 300 kms of the thermal power plants, <i>Para B(1)</i>	Ongoing	Immediate	CPCB and SPCB/PCC

8	Backfilling of ash in mine voids or mixing of ash with external overburden dumps under EPR by mines located within 300 km radius of thermal power plants, <i>Para B(3)</i>	Ongoing	Immediate	CPCB, SPCB/PCC, DGMS, IBM
9	Constitution of Committee for identification of mines for backfilling of mine voids with ash or mixing of ash with overburden dump, <i>Para B(5)</i>	Completed	-	CPCB
10	Committee to get the updated quarterly reports for identified mines, <i>Para B(5)</i>	Ongoing	Immediate	CPCB
11	Filling of low lying areas with ash for approved projects with prior permission of SPCB in accordance to the guidelines by CPCB, <i>Para B(6)</i>	Ongoing	Immediate	CPCB and SPCB/PCC
12	SPCB/PCC to publish the approved low lying sites, location, area and permitted quantity annually on its website, <i>Para B(6)</i>	Ongoing	Annual	SPCB/PCC
13	CPCB to put the guidelines in place for all types of activities envisaged under the notification <i>Para B(7)</i>	Ongoing	Within one year of publication of notification	CPCB
14	Usage of ash bricks, tiles, sintered ash aggregate or other ash based products by all building construction projects located within a radius of 300 km from the thermal power plant , provided these are made available at prices not higher than the price of alternative products, <i>Para B(8)</i>	Ongoing	Immediate	CPCB and SPCB/PCC
15	Issuance of notice to agencies for mandatory utilization of ash & ash-based products, <i>Para D(1)</i>	Ongoing	On-need basis	Owners of TPPs, manufacturers of ash based products
16	Enforcement and monitoring of utilization of ash by TPPs, <i>Para E(1)</i>	Ongoing	Quarterly	CPCB, SPCB/PCC and District Magistrate
17	Development of web portal by CPCB for provisions under the notification, <i>Para E(1)</i>	Ongoing	Immediate	CPCB

18	Thermal power plants to upload monthly information regarding ash generation and utilisation, <i>Para E(2)(i)</i>	Ongoing	By 5th of next month	CPCB
19	Thermal power plants to upload annual implementation report providing information about compliance of provisions in the notification, <i>Para E(2)(i)</i>	Yet to start	By 30th of April	SPCB/PCC
20	Compilation of annual reports submitted by thermal power plants by CPCB and CEA, <i>Para E(2)(i)</i>	Yet to start	By 31st of May	CPCB, CEA
21	Constitution of a Committee for monitoring the implementation of the provisions of the notification, <i>Para E(3)</i>	Completed	-	CPCB
22	Meeting of the Committee to review annual implementation reports, <i>Para E(3)</i>	Ongoing	Once in six months	CPCB
23	Committee to hold stakeholder consultation for monitoring of ash utilization , <i>Para E(3)</i>	Ongoing	Once in six months	CPCB
24	Committee to submit six monthly report to MoEFCC, <i>Para E(3)</i>	Ongoing	Once in six months	CPCB
25	Constitution of State Level Committee to resolve disputes between TPPs and users of ash or manufacture of ash based products, <i>Para E(4)</i>	Ongoing	Immediate	CPCB
26	Compliance audit for ash disposal by thermal power plants and user agencies by auditors authorised by CPCB, <i>Para E(5)</i>	Ongoing	Annual	CPCB, SPCB/PCC
27	Audit report to be submitted to CPCB and concerned SPCB, <i>Para E(5)</i>	Yet to start	By 30th November every year	CPCB and SPCB/PCC
28	Initiation of action against non-compliant thermal power plants, <i>Para E(5)</i>	Yet to start	Within fifteen days of receipt of audit report	CPCB, SPCB/PCC

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

Ph: 011-20819291

Email: satyendra.kumar07@nic.in

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. MP PCB 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

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: 8th June, 2023

OFFICE MEMORANDUM

Sub.: Minutes of the third meeting of 'Fly Ash Management and Utilization Mission' held on 01.05.2023 - reg.

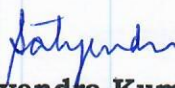
The undersigned is directed to enclose herewith the minutes of the third meeting of "Fly Ash Management and Utilization Mission" held under the Chairpersonship of Secretary (EF&CC) on 01.05.2023 at 11:00 hrs at Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, New Delhi.

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

Ph: 011-20819291

Email: satyendra.kumar07@nic.in

To:

1. Secretary (Coal), Ministry of Coal, New Delhi
2. Secretary (Power), Ministry of Power, New Delhi
3. Secretary (Mines), Ministry of Mines, New Delhi
4. Chief Secretary, State of Uttar Pradesh
5. Chief Secretary, State of Madhya Pradesh
6. Chairman, CPCB, New Delhi
7. Additional Chief Secretary/Principal Secretary, Energy, Government of Uttar Pradesh

8. Additional Chief Secretary/Principal Secretary, Energy, Government of Madhya Pradesh
9. Additional Chief Secretary/Principal Secretary, Industries, Government of Uttar Pradesh
10. Additional Chief Secretary/Principal Secretary, Industries, Government of Madhya Pradesh
11. Director General, Directorate General of Mines Safety, Jharkhand
12. Additional Chief Secretary/Principal Secretary, Environment Department, Government of Madhya Pradesh
13. Additional Chief Secretary/Principal Secretary, Environment Department, Government of Uttar Pradesh
14. Chairman, UPPCB, Uttar Pradesh
15. Chairman, MPPCB, Madhya Pradesh
16. District Magistrate, Sonbhadra, U.P. (for stone crushers and all private mines)
17. District Magistrate, Singrauli, M.P. (for stone crushers and all private mines)
18. CMD, M/s NTPC Limited
19. CMD, M/s Lanco Anpara Power Pvt. Ltd.
20. CMD, M/s Hindalco Industries Ltd.
21. CMD, M/s UPRVUNL
22. CMD, M/s Grasim Industries Limited, Chemical Division, Renukoot, Sonbhadra
23. CMD, M/s Birla Carbon India Pvt. Ltd., Renukoot, Sonbhadra

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 01.05.2023 at 11:00 hrs**

The third meeting on 'Ash Management and Utilization Mission' was convened on 1st May, 2023 at 11:00 hrs to review the status of actions taken based on the recommendations of the Mission established in the meeting held on 31.01.2023. The list of participants is annexed at **Annexure I**.

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

1. Ash generation and utilization by all TPPs in the country was reviewed. 186 TPPs (2,11,620 MW) generated 262.6 million tonnes during FY 2021-22. Overall ash utilization in the country was 94.7%. The details of ash utilization by TPPs are as below:
 - i. 80 % (1st compliance cycle of 3 years): 144 TPPs
 - ii. 60-80 % (1st compliance cycle of 4 years): 21 TPPs
 - iii. <60 % (1st compliance cycle of 5 years): 38 TPPs
 - 12 TPPs: non-operational; 01 TPP: data not received
2. Ash utilization percentage of various thermal power plants in Singrauli and Sonbhadra region was reviewed. The region generated 29.3 MT during FY 2022-23 and utilized 14.13 MT (48%). The details of ash utilization during FY 2021-22 & 2022-23 are as under:
 - i. Nigrie, JP Associates: 89.55% & 100.8%
 - ii. M/s Sasan TPS: 52.3% & 109.4%
 - iii. M/s Mahan Energen TPS: 25.46% & 100%
 - iv. M/s NTPC Vindhyanchal: 53% & 37.31 %
 - v. M/s Singrauli: 57.5% & 40.16%
 - vi. Rihand: 59.2% & 52.9%
 - vii. Anpara A, B & D, UPVUNL: 2.62% & 1.89%
 - viii. Obra B, UPVUNL: 5.4% & 15.34%
 - ix. Anpara 'C' Lanco TPS: 12.8% & 11.67%

3. M/s Vindhyanchal informed that tender for supplying ash for road construction projects was under process. It was informed that despite the allotment of the Gorbi mine to the power plant, infrastructure development for ash disposal was still in progress.
4. Action plans of stone crushers from Govt. of M.P. were received. Field inspections were carried out by a team of District Collector, SPCB and Mining Officers. Principal Secretary, Environment Dept. Govt. of M.P. reviewed the progress of implementation of action plans on 25.04.2023. Out of 63 stone crushers, the following have installed one or other pollution control measures:
 - 23: dust containment cum suppress system
 - 24: wind breaking wall
 - 60: water sprinkling
 - 43: greenbelt
5. The crushers located in M.P. were directed to install the remaining pollution control measures within three months.
6. Action Plans of stone crushers from U.P. (Sonbhadra District) were submitted on 21.04.2023. Around 200 stone crushers of large capacities are located at single location, causing air pollution in the region. Govt. of U.P. informed that seven defaulters out of 220 stone crushers had been closed and monitoring of air quality is carried out on weekly basis.
7. Oversight Committees of U.P. and M.P. comprising official from CPCB, SPCB and District Magistrate had carried out field inspections in February, 2023. CPCB forwarded the inspection reports of UPPCB and MPPCB for taking action on violations on 20.02.2023.
8. Principal Secretary, Deptt. Of Environment, Govt. of M.P. reviewed overall progress of actions mandated under the Mission on 25.04.2023 and issued following directions:
 - a. Vindhyanchal TPP, Sasan Power, Mahan Energen, M/s Hindalco, M/s JP Nigrie, were given directions and timelines to install pollution control measures and achieve 100% ash utilisation.

- b. Northern Coalfields Ltd. directed to conduct feasibility study for mixing of ash in OB dumps and backfilling of ash in voids of working mines.
 - c. Coal mines were mandated to procure mechanical sweepers, fog and mist sprinklers for taking up dust mitigation measures.
 - d. Coal mines were directed to set up coal handling plant and railway siding for evacuation of coal through rail to match to the expanded production capacities.
 - e. Jayant, Dudhichua and Nigahi coal mines were issued notices for taking dust pollution control measures for avoiding contamination of water bodies. Notices served to impose environmental compensation.
 - f. Suliyari open cast mine, Amelia coal mine, Mohar and Mohar Amlori coal mine and Amelia north coal mine were directed to set-up concrete roads and procure mechanical sweepers and water sprinkling machines for control of air pollution.
 - g. 8 railway sidings (ECR-3, WCR-3 and NCL-2) were directed for ensuring installation of air pollution control measures.
 - h. PWD was directed to inspect the construction of roads for control of air pollution.
9. Obra TPS had discharged ash into nearby nalla and M/s Anpara TPS had discharged ash into Rihand reservoir from the ash ponds. MPPCB imposed Environmental Compensation on UPRUVNL. The company informed that 51000 m³ of ash from the nalla near to Obra TPS and 66000 m³ of ash from Rihand reservoir had been desilted so far. The desilted ash had been used for filling up of low lying areas.
10. Central Level Working Group constituted under Additional Secretary, Ministry of Coal for allocation of coal mines for disposal of ash convened a meeting on 31.03.2023, and decided that further scientific studies for allocation of working mines for disposal of ash is not required in operational mines in view of safety issues.
11. Studies conducted by CIMFR have shown that backfilling of ash in Gare Palma IV (working mine) providing good results since 15 years and suggested that

similar study may be conducted on mine-to-mine basis. Further, Sasan coal mine has conducted a study regarding mixing of OB with ash and have shown favourable results.

12. NCL has initiated studies to be conducted by CIMFR in operational mines and the reports will be submitted by December, 2023.
13. Ministry of Coal has provided the status of identification of mines for backfilling of ash in mine voids:
 - a. 32 abandoned mines identified
 - Ash filling is ongoing/ completed: 10 mines
 - MoU is in process: 02 mines
 - Identified: 09 mines
 - b. 18 Underground (UG) coal mines of CIL
 - c. 01 Opencast mine and 09 UG mines of SCCL (100 lakh m³ bottom ash is expected to be utilized)
14. Ministry of Mines has identified 82 abandoned mines (other than coal) for filling mine voids with ash.
15. M/s Anpara, UPVUNL has requested NCL and Ministry of Coal to allot pit no. 3 of Gorbi mine for disposal of ash. NCL informed that the proposal will be submitted for Board's approval. Ministry of Coal has informed that Pit no.3 of Gorbi mine will be allocated once all statutory requirements have been met by the respective TPP.
16. NTPC mentioned that TPPs may be notified regarding the closure of the mines in advance as it takes approximately 4-5 years for infrastructure development for transportation and disposal in mine voids.
17. M/s Hindalco informed that signing of MoU between DFO, U.P, Aluminium Association of India and IIFM Bhopal is under process for backfilling of Dala abandoned stone quarry with fly ash and red mud. Request made to NCL to allot one pit of Gorbi mine for filling it with red mud and fly ash.

18. NH39 from Sidhi to Waidhan, Singrauli for about 92 km is constructed by NHAI in M.P. It was requested that ash may be utilized in the said road construction project.
19. Committee of Implementation of Ash Utilization Notification, 2021 and Committee for identification of mines under chairpersonship of Chairman, CPCB convened meeting on 18.02.2023 and Ministry of Coal was requested to update the status of allocation and initiation of backfilling, list out mines likely to be available and undertake mine (operational) specific studies for disposal of ash.
20. CPCB has identified organizations for annual certification of ash dykes in line with Ash Utilization Notification, 2021. Certification of ash dykes of thermal power plants located at Singrauli district have been done during the month of February, 2023.
21. M/o Power issued show-cause notice to 43 TPPs (37 TPP were having less than 60% of ash utilization and 06 TPPs having 60-80% ash utilization percentage). MPPCB and UPPCB issued notices to coal mines for imposing Environmental Compensation for non-compliances and no response was received from the respective Coal mine.
22. MPPGCL made several requests for allotment of abandoned mines of SECL for utilizing ash from Amarkantak TPS, Chachai for backfilling of mine voids with ash. It was informed that SECL is not allotting the said mine voids as it has been transformed into a water body.
23. Respective Committee of MoEFCC, CPCB and SPCBs constituted as per the directions of NGT in O.A. No. 862 of 2022 regarding pollution due to road transportation of ash of thermal power plants in Singrauli and Sonbhadra region carried out field inspections and submitted the reports to NGT in March 2023.
24. In line with Ash Utilization Notification, 2021, CPCB has developed ash portal on 19.12.2022 for enabling TPPs to furnish details of fly ash generation and utilization/ disposal. 180 TPPs out of 186 TPPs have uploaded the ash data on portal.
25. Director, DGMS mentioned that factor of safety of 1.5 is to be maintained to ensure long term stability and safety of OB dumps mixing with ash. Site specific

studies needs to be done to determine the percentage of ash to be mixed in the OB dumps. Further, ash can be used in place of sand stowing carried for filling up of underground mine voids.

26. The guidelines for technical specifications and annual certification of ash ponds/dykes have been further modified in view of amendment ash notification 30.12.2022 and CEA will obtain concurrence of Ministry of Power on the said guidelines.
27. Govt. of U.P. has directed District Magistrate, Sonbhadra to open a separate account to receive voluntary contributions and funds for environment restoration and relief.
28. Regarding health impact study, Madhya Pradesh Pollution Control Board nominated ICMR- NIREH for conducting health and risk impact assessment studies of operations of TPPs and ash generating industries. Govt. of U.P is yet to submit the status.
29. District Magistrate of Singrauli District, Madhya Pradesh has identified different SHGs and initiated skilling and outreach programme for promoting switch over to ash based brick/product manufacturing under State Rural Livelihood Mission. Action in this regard is yet to be taken by UP Govt.
30. Government of M.P. and U.P. have directed respective District Magistrates to take enforcement measures regarding mandatory use of ash based products/bricks on obligated entities such as building construction agencies.

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

1. Allocation of pits no. 3 of Gorbi abandoned mine to Anpara TPP, UPRVUNL for backfilling within one month. Allotment of abandoned mine of SECL to Amarkantak TPP, M.P. to M/s MPPGCL and abandoned mine of WCL to TPPs.

(Action: Ministry of Coal, NCL, SECL and WCL)

2. Updating the list of coal mines approaching for closure of mine in 3-5 years so that TPPs can engage with coal mines for setting up of infrastructure for transportation and disposal of ash in mine voids.

(Action: Ministry of Coal)

3. Updating information of 82 identified abandoned mines (other than coal) and setting-up procedure for signing of MoU between the identified mines and TPPs. Steps for identification of more mines for enabling TPPs achieve 100% ash utilisation.

(Action: Ministry of Mines)

4. Issue necessary instructions regarding not requiring permission from DGMS for filling up of mine voids and mixing of ash in OB dumps, and SOP for carrying out feasibility studies in respect of all mines.

(Action: Ministry of Coal and Ministry of Mines)

5. Stipulation of specific conditions in Environmental Clearances of coal mines and non-coal mines for conducting feasibility studies for assessment of voids for backfilling of ash and mixing of ash with overburden, taking up backfilling ash and OB mixing activities during operations as well as post closure of mines in line with the Ash Utilization Notification, 2021

(Action: MoEF&CC)

6. Utilization of ash in the road construction project NH39 from Sidhi to Waidhan, Singrauli, M.P. for 92 km. MoRTH may be requested to issue necessary instructions to NHAI to engage with TPPs for utilization of ash.

(Action: MoEF&CC and MoRTH)

7. Ministry of Coal may be apprised about the action initiated by MPPCB and UPPCB on environmental non-compliances of coal mines in Singrauli and Sonbhadra region.

(Action: MoEF&CC)

8. Examination of actions plans submitted by thermal power plants and stone crushers and carry out continued verification of the implementation of action plans of TPPs, Industries, mines and stone crushers in Singrauli and Sonbhadra region.

(Action: CPCB)

9. Examine the inspection and compliance reports of Anpara and Obra TPPS w.r.t. desilting ash from Rihand Reservoir and Renu River and disposal of desilted ash in low lying areas.

(Action: CPCB)

10. Finalization of guidelines for technical specifications and annual certification of ash ponds/dykes.

(Action: CPCB and CEA)

11. Dust containment and suppression measures are to be taken by the stone crushers. Carry out assessment of air quality in and around stone crushers on regular basis to verify the impact of mitigation measures taken by the stone crushers.

(Action: Stone crushers in Singrauli and Sonbhadra region, MP PCB & UP PCB)

12. All thermal power plants and stone crushers shall update the progress in regard to the implementation of action plans by respective stakeholders.

(Action: All TPPs and stone crushers in Singrauli and Sonbhadra region)

13. Creation of 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.)

14. Submission of one-year action plan along with specific deliverables in respect of conducting health and risk impact assessment studies of operations of TPPs and ash generating industries, within one month.

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

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.

(Action: UPPCB, MPPCB, concerned District Magistrates)

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

(Action: Govt. of U.P. and M.P.)

17. Anpara TPP and Obra TPP to desilt the remaining ash discharged in Rihand Reservoir and Renu River by May, 2023. Desilted ash disposed in low lying areas to be stabilized with soil cover and grass/ green belt to avoid pollution.

(Action: M/s UPRVUNL)

18. Assessment and monitoring of desilting activities in water bodies where Anpara and Obra discharged ash, and stabilization activities of low lying area where desilted ash is filled up to verify the status of remedial measures taken, by June, 2023.

(Action: UPPCB and Forest Department, Govt. of UP)

19. Inter-state transportation of ash is to be permitted for utilization of ash in the specified eco-friendly purposes along with safeguards for pollution control and mitigation.

(Action: Govt. of UP and M.P.)

20. Submission of action plan indicating the timelines for initiation and completion of feasibility studies for assessing the area and volume available for ash backfilling in mine voids and mixing of ash in OB dumps in all NCL mines.

(Action: NCL)

21. Submission of time-bound action plan for achieving 100% utilization of ash by TPPs. Cost-benefit analysis to be conducted for outweighing benefits of bearing ash transportation cost/promotion of ash based product manufacturing/coal transportation cost vis-à-vis environmental compensation.

(Action: UPRVUNL, NTPC and Anpara Lanco, All TPPs)

22. A study on mixing of red mud with ash in Gorbi abandoned mine is to be carried out to neutralize acidic water of Gorbi mine pit.

(Action: NTPC and NCL)

23. 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, EF&CC
2. Shri Tanmay Kumar, Chairman, CPCB
3. Shri Naresh Pal Gangwar, Additional Secretary, MoEFCC
4. Shri Deepal Goal, Director, MoC
5. Shri Dheeraj Kumar, DS, M/o Mines
6. Shri Tirupathi Reddy Kommidi, Additional Chief Manager, NLC India Ltd., MoC
7. Shri Nazimuddin, Scientist F, CPCB
8. Shri N. Subrahmanyam, Scientist D, MoEFCC
9. Shri Chandra Mohan Thakur, PDS- Env., GoMP & MS, MPPCB
10. Shri Ajay K. Sharma, MS, UPPCB
11. Shri Mohammed Niyazi, Dir. (S&T), DGMS
12. Shri Ashutosh Kr. Dubey, ADM, Sonbhadra
13. Shri Manjeet K. Sinha, AGM-IT, NTPC
14. Shri MVR Reddy, ED, SSEA, NTPC
15. Shri S.K. Takhele, CGM (SEA), NTPC
16. Shri Chetan Awsathi, STA to ED (SSEA), NTPC
17. Shri Durga Nand Jha, JRF, CPCB
18. RO, MPPCB, Singrauli
19. Shri Hemant K. Sharma, Director (Environment), GoMP
20. Shri Rajendra Singh, CEO, UPPCB
21. Shri R.K. Gupta, Superintending Engineer, MPPCB
22. Shri Umesh Kr. Gupta, AEE, UPPCB, Sonbhadra
23. Shri Gulshan Raj, CE, CD, CEA
24. Shri Amit Kumar, Director, CD, CEA
25. Ms. Rehana Beg, Resident Engineer, M.P. Power Generating Company Limited
26. Shri Ravikant Raut, Chief Chemist, M.P. Power Generating Company Limited
27. Shri M. L. Patel, Chief Engineer, M.P. Power Generating Company Limited
28. Shri Ashok Rai, Mining Officer, Singrauli
29. Shri Ranjeet Nirmal, DMO GBN, Mining Dept. Govt. of UP
30. Shri Sanjeev Kumar, GM (Env. &F), NCL

31. Dr. Avinash Tripathi, Officer on Special Duty, NOIDA Authority
32. Shri R. K. Sharma, Project Eng., Noida Authority
33. Shri M. Narasimha Murthy, V.P., Lanco Anpara Power Ltd.
34. Shri Himanshu Verma, Sr. Manager, Lanco Anpara Power Ltd.
35. Shri Santosh Kumar Singh, Head, Adani, Mohan Energy Ltd.
36. Shri S.K. Dutta, Director (Project), UPRVUNL
37. Dr. Vijay Kr. Yadav, AGM (Environment), Grasim Industries Ltd., Renukoot
38. Shri Sayed M Islam, Manager (EHS), Birla Carbon, Renukoot
39. Shri Ashwani Tyagi, NTPC
40. Shri Vinay Ramaiya
41. Ms. Vaishali Surawar, Hindalco
42. Shri Rajashekar, NTPC
43. Shri P N Sharma, IBM
44. Shri Bharat Bhushan Chugh, Associate, NTPC
45. Shri Debanjan Basak, RPSG
46. Shri Ajit Kumar, NTPC
47. Dr. Neeraj Verma, RRT 1
48. Shri Pushpender Gaur IBM RO, Gandhinagar
49. Prof. (Dr.) Partha Ghosh
50. Shri Surajit Basu
51. Dr. Vinod K Verma, Sr VP, Aditya Birla
52. Dr. Sanjoy Chakraborty, RPSG
53. Ms. Soubhagya Tripathy, Hindalco Aditya Birla
54. Shri Mukesh Mukesh, Aditya Birla

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: 2nd August, 2023

OFFICE MEMORANDUM

Sub.: Minutes of the fourth meeting of 'Fly Ash Management and Utilization Mission' held on 04.07.2023 - reg.

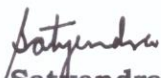
The undersigned is directed to refer the fourth meeting of 'Fly Ash Management and Utilization Mission' held on 04.07.2023 at 11:00 hrs at Indira Paryavaran Bhawan, New Delhi to review the status of actions taken based on the decisions made by the Mission in the meeting held on 01.05.2023.

2. In view of the above, minutes of the fourth meeting of 'Fly Ash Management and Utilization Mission' is enclosed herewith.
3. 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 stated

Yours sincerely,


(Dr. Satyendra Kumar)

Director

Ph: 011-20819291

Email: satyendra.kumar07@nic.in

To:

1. Secretary (Coal), Ministry of Coal, New Delhi
2. Secretary (Power), Ministry of Power, New Delhi
3. Secretary (Mines), Ministry of Mines, New Delhi
4. Chief Secretary, State of Uttar Pradesh
5. Chief Secretary, State of Madhya Pradesh
6. Chairman, CPCB, New Delhi

7. Additional Chief Secretary/Principal Secretary, Energy, Government of Uttar Pradesh
8. Additional Chief Secretary/Principal Secretary, Energy, Government of Madhya Pradesh
9. Additional Chief Secretary/Principal Secretary, Industries, Government of Uttar Pradesh
10. Additional Chief Secretary/Principal Secretary, Industries, Government of Madhya Pradesh
11. Director General, Directorate General of Mines Safety, Jharkhand
12. Additional Chief Secretary/Principal Secretary, Environment Department, Government of Madhya Pradesh
13. Additional Chief Secretary/Principal Secretary, Environment Department, Government of Uttar Pradesh
14. Chairman, UPPCB, Uttar Pradesh
15. Chairman, MPPCB, Madhya Pradesh
16. District Magistrate, Sonbhadra, U.P. (for stone crushers and all private mines)
17. District Magistrate, Singrauli, M.P. (for stone crushers and all private mines)
18. CMD, M/s NTPC Limited
19. CMD, M/s Lanco Anpara Power Pvt. Ltd.
20. CMD, M/s Hindalco Industries Ltd.
21. CMD, M/s UPRVUNL
22. CMD, M/s Grasim Industries Limited, Chemical Division, Renukoot, Sonbhadra
23. CMD, M/s Birla Carbon India Pvt. Ltd., Renukoot, Sonbhadra

Copy to:-

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

Minutes of the 4th meeting of Fly Ash Management and Utilization Mission
held on 04.07.2023 at 11:00 hrs

The fourth meeting on 'Fly Ash Management and Utilization Mission' was convened on 4th July, 2023 at 11:00 hr to review the status of actions taken based on the recommendations/decisions made by the Mission in the meeting held on 01.05.2023. The list of participants is annexed at **Annexure I**.

a. During the meeting, **following discussions were held:**

1. Central Level Working Group constituted under Additional Secretary, Ministry of Coal for allocation of coal mines for disposal of ash to thermal power plants convened a meeting on 04.05.2023, and allocated Gorbi Pit- 2 and 3 of NCL to NTPC Vindhyanchal and Anpara TPS, UPRVUNL, respectively.
2. Status of allocation of abandoned mines to TPPs for backfilling of ash:
 - i. Sarni UG of WCL allocated to Satpura TPS of MPPGCL: draft MoU has been shared with MPPGCL for acceptance.
 - ii. Sharda OC (OPQR patch) of SECL allocated to Amarkantak TPS, M.P. to M/s MPPGCL-volume of 1.6 lakh m³ (15%) void was made available, out of which 90,000 m³ has been filled so far. Remaining 85% void was made available to MB Power Ltd.
 - iii. Sharada OC of SECL, Trench-1 was allocated to:
 - a. Amarkantak TPS, MPPGCL, Chachai- 0.9 lakh m³ (16 km)
 - b. NTPC, Sipat- 10.93 lakh m³ (187 km)
 - c. NTPC, Korba- 12.53 lakh m³ (199 km)
 - d. SGTPS, MPPGCL, Birsinghpur- 5.63 lakh m³ (78 km)
 - iv. M/s NCL informed that three meetings were held and the draft MoU with M/s UPRVUNL (Anpara TPP) for signing had been shared. M/s UPRVUNL informed that the MoU would be signed immediately within a week for initiation of backfilling activities.

- v. MPPGCL informed that as per the agreement, 90,000 CuM ash had been filled into the mine void of Sharda OC (OPQR patch) out of allocated void of 1.6 lakh CuM. Sharda OC has a capacity 30 lakh CuM out of which major portion of mine voids was given to M/s MB Power Ltd. It was informed that Amarkantak Power Plant, Chachai of MPPGCL is located at 16 km from the Sharda mine voids and ash can be easily transported to the void.
 - vi. MPPGCL requested to consider the allocation of Trench 2 or 3 of Sharda OC for backfilling of remaining quantity of ash as the mine is located in M.P. and ATPS of MPPGCL does not have any alternate allocation.
3. It was informed that mine void of Sharada OC (Trench 1), Chachai of SECL is used as water reservoir and meets the water requirement for industrial & community use. CIL informed that adjacent void, Trench-2 could be allotted to Amarkantak TPS, MPPGCL, Chachai.
 4. MPPGCL shared that Sarni underground mine of WCL was yet to be allocated as MoU was under finalization due to issues related to mine safety. DGMS in this regard stated that individual mine may conduct scientific study in respect of factor of safety and submit the report.
 5. It was informed that Singareni UG coal mine (SCCL) had filled up fly ash in the mine voids by ensuring the safety parameters. The SOP followed in this regard may be used for ash filling in mine voids of other UG mines.
 6. M/o Coal informed that 22 mines of CIL had been allocated for backfilling activities. The physical progress of ash back filling is dismal. NTPC has filled 32 lakhs CuM ash so far out of 655 lakhs CuM voids made available. NTPC has shared 5-year action plan for utilization of legacy ash. MPPCB was requested to permit 3000 CuM ash transportation per day against 1400 CuM. MPPCB informed that there was no restriction on quantity of ash transportation. However, District Administration allows transportation only during night time to avoid traffic and maintain safety.
 7. M/o Coal informed that about 4-5 operational mines would get closed in next few years and made available for backfilling of ash. NCL informed that two

operational mines of NCL namely Kakri Opencast Project (March, 2024) & Krishnashila Opencast Project (March, 2027) are approaching for closure by March, 2024 and March 2027, respectively.

8. NCL expressed no objection for conducting the study on mixing of red mud with ash in Gorbi abandoned mine and stated that NTPC and Hindalco Industries may carry out the said study on mutually agreed terms. NTPC expressed that appropriate safeguards in regard to discharge of wastewater from the mine into the water bodies may be considered.
9. Feasibility study to assess the area/volume available for ash backfilling and mixing of ash in with OB of NCL mines is ongoing at Nigahi operational mine by CIMFR. Approval for conducting study for Amlori, Jayant, Khadia and Dudhichua mines at M.P. is under process.
10. Ministry of Mines has shared the list of 207 identified non-coal mines for backfilling with fly ash. Further, directions were issued to all the Regional Controllers of Mines to identify more working mines, where mineral was exhausted, for backfilling activities. The list of 207 identified non-coal mines is presented below:
 - i. 82 abandoned mines: list shared earlier
 - ii. 56 mines: surrendered to State Govt.
 - iii. 57 mines: part surrendered
 - iv. Pits of 12 working mines: available for backfilling with fly ash
11. CPCB informed that the list of 207 identified non-coal has been made available on Fly Ash Management Mission's website. CEA has circulated the list to all the TPPs.
12. Anpara TPP has desilted 1.52 lakh CuM deposited ash from Rihand reservoir and desiltation of remaining 50,000 CuM ash will be completed by July, 2023. Further, desilted ash is being used to fill low lying areas. Total 58000 CuM deposited ash have been completely desilted from Renu river by Obra TPP. Desilted ash has been disposed in low lying areas in Obra Sector 2 & 3 and stabilized with soil. Development of green belt is under progress.

13. UPPCB informed that the assessment and monitoring of desilting activities in water bodies due to Anpara and Obra discharged ash will be conducted after June, 2023.
14. Regular inspections are being carried out by UPPCB and MPPCB to verify implementation of action plan by TPPs, stone crushers and industries. UPPCB is yet to submit the compliance report. The Oversight Committee conducted field inspection in the month of May, 2023.
15. Meetings were held under Principal Secretary, Env. Dept., GoMP on 09.05.2023 & 27.06.2023 to review the implementation of action plan and issued following directions:
 - i. NHAI, MP Road Development Corporation and PWD were instructed regarding compulsory use of ash in all the road construction projects in the area.
 - ii. 4 TPPs (NTPC, Amarkantak TPP, Sanjay Gandhi TPP, Shri Shingaji TPP) having % ash utilization less than 55% were directed to submit action plan for 100% ash utilization.
 - iii. NTPC Vindhyanchal was directed to complete modernization process of ESP (within 2 months), install water sprinkler system to control fugitive dust emission from ash dyke and construction of fly ash storage silos (16 hrs capacity).
 - iv. Sasan Power Ltd. was directed for laying 25 km long pipeline for transportation of ash. Mahan Energen Ltd. were directed to complete arrangement of merry-go-round and conveyer system for coal transportation and initiate transportation of ash through rail. Mohar & Mohar Amlori Extension Coal Project of Sasan Power Ltd. was directed to conduct study for mixing ash with overburden.
 - v. All TPPs were directed to submit ash dyke safety study report by reputed institute.
 - vi. NCL coal mines were directed to use 18 procured fog cannons to prevent fugitive dust emission. NCL Amlori Project were directed to establish

ETP. APMDC Ltd. were instructed regarding coal transportation through rail by March, 2025.

- vii. ECL was instructed to construct boundary wall, concrete roads and install water sprinklers in railway sidings by Dec, 2023. WCL was directed for timely completion of construction of Bargavan, Gondwali and Gajara Bahra railway siding.
 - viii. 3 stone crushers which have not taken pollution control measures, were directed to be closed and remaining crushers were directed to meet timelines for pollution control.
16. Secretary, Env. Dept. issued directions to the concerned departments for mandatory use of ash based products by all building construction agencies. A meeting was held on 09.05.2023 under Chief Secretary, Govt. of M.P. and 27.06.2023 under PS, Env. Dept. on implementation of action plan. Directions were issued to concerned stakeholders to utilize ash by roads construction agency, ash based products manufacturers and coal mines.
 17. UPPCB informed that air pollution control system such as covered conveyer system, covered jaw crusher, water sprinkling arrangement, wind breaking wall, green belt, pucca roads have been installed in all 313 stone crushers and also no new stone crushers is allowed to established. 155 stone crushers were inspected out of which 47 defaulting units were issued show-cause notices under Air Act. Further, an area of 10 Ha is afforested by Miyawaki technique for the control of dust pollution.
 18. MPPCB conducted air quality monitoring around Phulwari, Sonbhadra District on 22.06.2023 & 23.06.2023. It was stated that due to the installation of pollution control systems such as water sprinkler, greenbelt development, wind breaking wall and dust containment cum suppress system and due to precipitation on 22.06.2023, the results were found within the prescribed standards (PM_{10} : $100 \mu g/m^3$). Further, out of 63 inspected stone crushers, 3 crushers are to be closed and remaining crushers to meet timelines for pollution control.

19. M/s Hindalco informed that pits of Dala abandoned stone quarry is partially filled with water and are available for disposal of fly ash. Formulation of SoP by Aluminium Association of India and IIFM Bhopal is under process for conducting pilot study on mixing of red mud with fly ash for backfilling of Dala abandoned stone quarry.
20. State Govts. informed that inter-state transportation of ash has not been banned and no application was received for inter-state ash transportation.
21. CPCB has finalized guidelines for technical specifications and annual certification of ash ponds/dykes on 27.06.2023.
22. Stipulation of conditions in Environmental Clearances of coal mines and non-coal mines for conducting feasibility studies for assessment of voids for backfilling activities is under consideration by Expert Appraisal Committee (Coal Mining).
23. MoEF&CC on 4.05.2023 requested NHAI to utilize ash in all road construction projects enabling TPPs to achieve 100% ash utilization.
24. Collector of Singrauli District, Madhya Pradesh had organised a workshop on 24.06.2023 for identified SHGs for promoting switch over to ash based brick/product manufacturing. Further, directions were given to the TPPs for ensuring availability of fly ash to these SHGs. Govt. of U.P. has directed TPPs to organise skilling and outreach programme. TPPs are promoting 31 MSMEs engaged in manufacturing ash based products/ brick manufacturers.
25. Proposals from AIIMS, Bhopal for conducting health and risk impact assessment studies in Sonbhadra and Singrauli region were sanctioned on 30.06.2023 and 27.06.2023, respectively.
26. Govt. of U.P. has opened a separate account to receive voluntary contributions and funds for environment restoration and relief. It was discussed that the funds already collected under Environmental Compensation for recovering damages and remediation activities in Singrauli and Sonbhadra region may be transferred to the accounts recently created by State Government for effective utilisation for improving environment (air, water and soil) specific to this region.

27. Time-bound action plan for utilization of legacy ash were received from NTPC (Rihand Nagar & Shaktinagar), UPRVUNL (Obra TPS & UPRVUNL Anpara TPS) and Lanco Anpara Power Ltd.
28. NTPC informed that they have engaged with NHAI for road construction projects for the supply of ash. Along with this and filling of mine voids would increase the utilisation to 70%.
- b. The **following recommendations were made** during the meeting:

1. SOP to be developed in respect of working mine (opencast and underground mines) for safety related issues in allocation of mines. Also, SOP to be formulated for carrying out feasibility studies for filling up of mine voids in respect of all mines.

(Action: Ministry of Labour and Employment, and DGMS)

2. Updating list of identified abandoned mines for enabling TPPs to approach the concerned mines for backfilling of mine voids with ash for achieving 100% ash utilisation. SOP for signing-up of MoU between the identified mines and TPPs to be finalised.

(Action: Ministry of Mines)

3. Details of SOP followed for Singareni underground mine (SCCL) for ash filling in mine voids may be shared with WCL and NCL for adoption of similar SOP conditions in the MoU to be signed with TPPs. A copy may be shared with MoEFCC.

(Action: Ministry of Coal)

4. Status regarding details of identified mine voids, allocation to TPPs, signing of MoU and quantity of ash filled up against the available volume may be shared and may be put up on the website and updated monthly.

(Action: Ministry of Coal)

5. List of coal mines approaching for closure of mines in 3-5 years to be updated and shared with MoP & TPPs for making early allocation, signing of MoU and preparatory activities for initiation of backfilling of ash.

(Action: Ministry of Coal)

6. A scientific methodology with GIS mapping may be evolved for allocation of mine voids/ mixing of OB dumps with ash to TPPs based on proximity to the mine and transportation distance so that the environmental impacts/ costs of transportation can be minimised. In case of Sharda OC mine (Trench -1, 2 & 3), existing allocation of 90,000 m³ to Amarkantak TPS, MPPGCL may be reviewed and it may be increased as the TPP is 16 kms from the said mine.

(Action: Ministry of Coal)

7. Completion of feasibility study for Nigahi operational mine within two months and submission timelines for initiation and completion of feasibility studies for other working mines for assessment of area and volume available for ash backfilling in mine voids and mixing of ash in OB dumps in all NCL mines. Findings of feasibility study of Nigahi operational mine shall be presented during the next meeting of the Mission.

(Action: Ministry of Coal and NCL)

8. Meeting with all TPPs to get the details about abandoned mines which may be geographically favourable to the TPPs and furnish the list of TPPs along with priority list of abandoned mines.

(Action: MoP, CEA)

9. M/o Labour and Employment and DGMS to be communicated regarding finalisation of SOP in regard to backfilling of ash in open cast and underground mines (for both abandoned as well as working mines) and mixing of ash with overburden in dumps. A separate meeting may be convened with DGMS, M/o Coal and M/o Mines in this regard.

(Action: MoEF&CC)

10. Third-party audit for verification of implementation of action plans of TPPs, industries, stone crushers and coal mines in Singrauli and Sonbhadra region including desilting activities and reclamation of low lying areas carried out, may be undertaken through empanelled institutions/agencies and the report in this regard may be furnished during the next meeting of Mission. CPCB may work

out the cost to be incurred by individual industry in case of unit specific audit and jointly by cluster of industries in case of cluster specific audit.

(Action: CPCB)

11. In order to ensure 100% utilization of ash by all lignite and coal based thermal power plants across the country, effective monitoring and supervision of provisions of Ash Utilization Notification dated 31.12.2021 have to be scrupulously complied with. Respective stakeholders have been mapped in respect of the various activities mandated under the notification which has been shared with CPCB with the minutes of previous meeting. CPCB to coordinate with all the regulatory/enforcing agencies and ensure the compliance of all the activities in a time bound and on a regular basis

(Action: CPCB, MoP, CEA, All State Govts, All stakeholders)

12. Directorate of Mines and Geology may update the list of abandoned mines available in their respective States and make it available on State Govts. website including abandoned stone crushers. This may be put up on the website and updated every month.

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

13. Environmental Compensation collected by respective SPCBs from the industries of Singrauli and Sonbhadra region prior to the opening of specific accounts and kept in common EC fund, may be transferred to respective accounts created by the State Govts, in addition to voluntary contributions. A mechanism to be put in place to utilise the funds received from this region to be used only for the said region for restoration of environment and relief. Further, State Forest Department may be engaged for carrying out measures for restoration of environment.

(Action: State Govts. of U.P. & M.P.)

14. Increase in utilisation of quantum of ash for making ash based products or eco-bricks through SHGs may be assessed by comparing pre- and post-skilling and outreach programmes. This may be updated every three months. SHGs to be

involved in making eco-bricks that can be used in tree plantation/afforestation, toilet construction activities of the public utility projects.

(Action: State Govts. of U.P. & M.P.)

15. Implementation of effective enforcement measures regarding mandatory use of ash based products/bricks by all building construction agencies within 300 km radius of TPPs as prescribed in Ash Utilisation Notification, 2021 and implementation of additional measures beyond the Notification, to minimise the disposal of ash in mine voids and low lying areas.

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

16. Study on mixing of red mud with ash and its environmental aspects such as leaching of heavy metals into ground and surface water may be conducted and the results may be shared with CPCB.

(Action: State Govt. of M.P., MPPCB)

17. Ambient air quality monitoring in and around stone crushers to be conducted and baseline data of last two years (same season) be analysed to verify impact of mitigation measures taken by stone crushers. This may be carried out on a regular basis and data may be compiled in a continuous manner to assess the improvements as well as its sustainability. Carry out continuous evaluation of CEPI Score of Singrauli and Sonbhadra region and compile the data over the time in a continuous manner to assess the progress made. A presentation in this regard along with the implementation of CEPI action plan and verification/monitoring of desilting activities of Obra & Anpara (UPRVUNL) may be made during next meeting of the Mission.

(Action: State Govts. of U.P. and M.P., UPPCB and MPPCB)

18. SOP to be laid down for stipulation of measures to be taken during road transportation of ash, in the permission/ Consent to Operate issued for backfilling of mine void with ash and mixing the ash with OB.

(Action: State Govt. of U.P. and M.P., MPPCB and UPPCB)

19. Finalization and signing of MoU with M/s NCL for initiation of backfilling activities in Gorbi Pit-3, within a week and timelines for commencing backfilling activities to be shared. Action taken report in this regard may be submitted to the MoEF&CC.

(Action: State Govt. of U.P., Anpara TPP, UPRVUNL, MoC and NCL)

20. Carry out desiltation of remaining quantity of ash discharged in Rihand reservoir by Anpara TPP. Desilted ash disposed in low lying areas to be stabilized with soil cover and grass/ green belt. Progress to be updated on the website on monthly basis.

(Action: State Govt. of U.P., Anpara and Obra TPP, UPRVUNL)

21. All the pending/ ongoing activities in respect of implementation of decisions made during 1st, 2nd and 3rd meeting of the Mission shall be undertaken and action taken report shall be furnished. Progress to be updated on the website on monthly basis. Necessary formats may be put up on the website to enable all stakeholders to upload the progress online. Login and passwords for all stakeholders to be generated immediately.

(Action: Concerned Ministry/ CPCB/ State Govts./ SPCBs/ Organisation)

List of Participants

1. Smt. Leena Nandan, Secretary, EF&CC
2. Shri Tanmay Kumar, Chairman, CPCB
3. Shri Naresh Pal Gangwar, Additional Secretary, MoEFCC
4. Sh. Anandji Prasad, Advisor (Project), MoC
5. Dr. Satyendra Kumar, Director, MoEFCC
6. Shri Tirupathi Reddy Kommidi, Additional Chief Manager, MoC
7. Shri, Anupam Shukla, Special Secretary, Department of Additional Sources of Energy, Govt. of U.P.
8. Shri Chandra Mohan Thakur, MS, MPPCB
9. Shri Ajay K. Sharma, MS, UPPCB
10. Shri Ashutosh Kumar Dubey, ADM, Sonbhadra, U.P.
11. Shri Nazimuddin, Scientist F, CPCB
12. Shri N. Subrahmanyam, Scientist D, MoEFCC
13. Shri Upendar Rapolu, Deputy Director, S&T, DGMS
14. Shri Amit Kumar, Director, CD, CEA
15. Shri P.S. Mohan Kumar, Deputy Director, CEA, MoP
16. Shri Ashish Kumar, Senior Mines Officer, Directorate of Geology and Mines, GoUP.
17. RO, MPPCB, Singrauli
18. Shri R.K. Gupta, Superintending Engineer, MPPCB
19. Shri Gaurav Gahlot, Scientist C, CPCB
20. Shri Ramesh Babu, Director (Operations), NTPC
21. Shri S.K. Takhele, CGM (SSEA), NTPC
22. Shri G., Rajashekar, GM (AMG), NTPC

23. Shri Ashwani Tyagi, DGM, NTPC
24. Shri Sanjeev Kumar, GM (Env. & Forest), NCL
25. Shri S.K. Dutta, Director (Technology), UPRVUNL
26. Shri Anand Kumar, Chief Engineer, UPRVUNL
Shri Ravikant Raut, Chief Chemist, MPPGCL
27. Ms. Rehana Beg, Resident Engineer, MPPGCL
28. Shri Himanshu Verma, Sr. Manager, Lanco Anpara Power Ltd.
29. Shri Mukesh Mittal, Vice President (Env. & Sustainability), Hindalco
30. Shri Vinay Kr. Yadav, AGM (Environment), Grasim Industries Ltd.,
31. Renukoot
32. Dr. Vinod K. Verma, Head Regulatory Affairs, Hindalco
33. Shri Shripal Singh, DGM (Civil), NOIDA
34. Shri S.K. Bhargava, Executive Engineer, MPIDC, Bhopal
35. Shri Shubham Pundeer, Manager (Project), YEIDA
36. Jitendra Prasad, Additional Vice President (EHS), Sasan Power Ltd.
37. Shri K.K. Mahobe, CE Civil AU& PC
38. DMF, Singrauli, MP
39. CSPGL

COMPLIANCE MATRIX

SI No.	Action	Status	Timeline	Enforcement Agency/Dept.
1	Constitution of Committee for to examine and review and recommend the eco-friendly ways of utilisation of ash, Para A(3)	Completed	-	CPCB
2	100% Utilisation of current ash by TPPs as per timelines, Para A(4)	Ongoing	As prescribed	SPCB/PCC
3	Guidelines for procedure for annual certification of the ash pond or dyke on its safety, environmental pollution, available volume, mode of disposal, water consumption or conservation in disposal, ash water recycling and greenbelt etc., Para A(6)	Ongoing	Immediate	CPCB and CEA
4	Loading, unloading, transport, storage and disposal of ash to be done in an environmentally sound manner by TPPs and all precautions to prevent air and water pollution to be taken, Para A(7)	Ongoing	Immediate	CPCB and SPCB/PCC
5	Installation of dedicated silos by TPPs for storage of dry fly ash for at least sixteen hours of ash, Para A(8)	Ongoing	Immediate	CPCB and SPCB/PCC
6	TPPs to provide real time data daily regarding the availability of ash by providing the link to CPCB's web portal or mobile phone app, Para A(9)	To be started	Immediate	CPCB and SPC/PCC
7	Mandatory utilisation of ash by government, semi-government and private agencies for construction activities within 300 kms of the TPPs, Para B(1)	Ongoing	Immediate	CPCB and SPCB/PCC
8	Backfilling of ash in mine voids or mixing of ash with external overburden dumps under EPR by mines located within 300 km radius of TPPs, Para B(3)	Ongoing	Immediate	CPCB, SPCB/PCC, DGMS, IBM

9	Constitution of Committee for identification of mines for backfilling of mine voids with ash or mixing of ash with overburden dump, Para B(5)	Completed	-	CPCB
10	Committee to get the updated quarterly reports for identified mines, Para B(5)	Ongoing	Immediate	CPCB
11	Filling of low lying areas with ash for approved projects in accordance to the guidelines by CPCB, Para B(6)			CPCB and SPCB/PCC
12	SPCB to publish the approved low lying sites, location, area and permitted quantity annually on its website, Para B(6)	Ongoing	Annual	SPCB/PCC
13	CPCB to put the guidelines in place for all types of activities envisaged under the notification, Para B(7)	Ongoing	Within one year of publication of notification	CPCB
14	Usage of ash bricks, tiles, sintered ash aggregate or other ash based products by all building construction projects located within a radius of 300 km from the TPP , provided these are made available at prices not higher than the price of alternative products, Para B(8)	Ongoing	Immediate	CPCB and SPCB/PCC
15	Issuance of notice to agencies for mandatory utilization of ash & ash-based products, Para D(1)	Ongoing	On-need basis	Owners of TPPs, manufacturers of ash based products
16	Enforcement and monitoring of utilization of ash by TPPs, Para E(1)	Ongoing	Quarterly	CPCB, SPCB/PCC and District Magistrate
17	Development of web portal by CPCB for provisions under the notification, Para E(1)	Ongoing	Immediate	CPCB
18	TPPs to upload monthly information regarding ash generation and utilisation, Para E(2)(i)	Ongoing	By 5th of next month	CPCB

19	TPPs to upload annual implementation report providing information about compliance of provisions in the notification, Para E(2)(i)	Yet to start	By 30th of April	SPCB/PCC
20	Compilation of annual reports submitted by TPPs by CPCB and CEA, Para E(2)(i)	Yet to start	By 31st of May	CPCB, CEA
21	Constitution of a Committee for monitoring the implementation of the provisions of the notification, Para E(3)	Completed	-	CPCB
22	Meeting of the Committee to review annual implementation reports, Para E(3)	Ongoing	Once in six months	CPCB
23	Committee to hold stakeholder consultation for monitoring of ash utilization , Para E(3)	Ongoing	Once in six months	CPCB
24	Committee to submit six monthly report to MoEFCC, Para E(3)	Ongoing	Once in six months	CPCB
25	Constitution of State Level Committee to resolve disputes between TPPs and users of ash or manufacture of ash based products, Para E(4)	Ongoing	Immediate	CPCB
26	Compliance audit for ash disposal by TPPs and user agencies by auditors authorised by CPCB, Para E(5)	Ongoing	Annual	CPCB, SPCB/PCC
27	Audit report to be submitted to CPCB and concerned SPCB, Para E(5)	Yet to start	By 30th November every year	CPCB and SPCB/PCC
28	Initiation of action against non-compliant TPPs, Para E(5)	Yet to start	Within fifteen days of receipt of audit report	CPCB, SPCB/PCC