

Fly Ash Management and Utilization Mission - Status of compliance of the action plan as per Hon'ble NGT's Judgement dated 18-01-2022

SI No.	Stakeholders	Action Plans	Status	Summary of Compliance (Please select)	Timelines for Completion	Enforcement Agency/ Department
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 decanted ash pond water from OFL was for short period during monsoon period due to excessive rain. At present there is no discharge in to Rihand reservoir. NTPC Shakti Nagar have taken short-term and long-term remedial actions which are as under: Short-term: Additional pipe line to increase AWRS flow by 500 m3/hr has been installed. A Sump pit alongwith pump & line commissioned to re-circulate seepage if any. Long-term: Augmentation of AWRS capacity by installing another pump (2000 m3/hr. capacity). <i>OC's Comments : The underground Hume pipe which was constantly discharging effluent from the ash pond overflow lagoon into the Rihand reservoir has been sealed through the heavy metallic plate. At present the water level of the Rihand reservoir has reduced due to which the said underground Hume pipe is visible. The unit has sealed the said pipe through reinforcement in order to avoid any possibility of leakage.</i>	In-Process	March 2025 (Extended from July 2023)	UPPCB
		Relocation of the OCEMS in order to achieve the desired iso-kinetic sampling for particulate matter	OCEMS is working in NTPC Singrauli. Sampling is being done from ID Fan outlet as Chimney do not have landing platform. Provision of sampling from Chimney in Online Continuous Emission Monitoring System (OCEMS) will be installed along with FGD installation for obtaining iso-kinetic sample.	In-Process	December 2026 (As per FGD Timeline)	UPPCB/CPCB
		Completion of the installation of the third CAAQMS	Completed	Completed		UPPCB
		Connection of CAAQMS to the CPCB/SPCB server	Completed	Completed		UPPCB/CPCB
		Submission of a time-bound action plan for 100% fly ash utilization	Action plan submitted	Completed		UPPCB
		Installation and commissioning of the FGD system in realization of the revised timeline	In progress. All three Chimneys construction has been completed. FGD work in progress. Civil: 89% completed. Mech. Work: 48% completed. Balance work in progress.	In-Process	December 2026 (As per FGD Timeline)	UPPCB/CPCB
		Treatment of the MSW generated from their residential colony	01. MSW generated from residential colony being segregated & collected through special motorized vehicle in a segregated manner. 02. Biodegradable waste is being processed in bio-methanation plant (Capacity 250 kg/day). Station has also awarded the contract for constructing permanent MSW facility with segregation & composting of domestic waste. Work to be started. 03. Non-biodegradable waste is being sent to registered recyclers.	In-Process	March 2024 (Extended from October 2023)	Municipal Corporation

		Undertake immediate measures to control fugitive emission in ash dyke area	Regular water sprinkling is being done to control fugitive dust in the dyke area. In addition to the above, a truck mounted FOG cannon is under award.	Completed	January' 2024	UPPCB
		Imposition and payment of environmental compensation (EC) of Rs 27,60,000/- for discharging ash pond overflow water into the Rihand reservoir	Ash pond overflow is being recycled through AWRS. Discharge observed was due to disturbance in system for a short period which was controlled and compliance of the same was submitted. Hon'ble Supreme Court referred the case to Hon'ble NGT. Case to be listed for re-consideration.	Completed		UPPCB/CPCB
2	M/s NTPC Rihand Super Thermal Power (Power Plant)	Connection of CAAQMS to the CPCB/SPCB server	Completed	Completed		UPPCB/CPCB
		Submission of a time-bound action plan for 100% fly ash utilization	Completed	Completed		UPPCB
		Installation and commissioning of the FGD system in realization of the revised timeline	Civil and mechanical works for installation of FGD in all units are in progress in full swing. Stage - I: 17% Civil works completed, 45% of materials received at site for mechanical fabrication works, fabrication work in progress. Stage - II & III: 73% Civil works completed; 28% mechanical works completed.	In-Process	December 2026 (As per FGD Timeline)	UPPCB/CPCB
3	M/s NTPC Limited Vindhychal Super Thermal Power Plant	Submission of a time-bound action plan for 100% fly ash utilization	Action plan submitted	Completed		MPPCB
		Explore possibilities for the construction of Ash mounds and submission of progress from time to time	Not applicable.	Select	Not applicable	MPPCB
		Conduct environmental damage assessment studies with CSIR-NEERI due to fly ash breach.	NTPC Vindhychal : Study completed and report submitted to MPPCB and Oversight Committee. As per recommendation of NEERI study measure like Repair of OFL, Removal of spilled ash from land & drains are completed.	Completed		MPPCB
4	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 meters have been installed & Commissioned.	Completed		UPPCB
		Entrapment of wastewater discharge containing ash into the Rihand reservoir through the drain at power house area	Installation of ETP of 30 MLD capacity for Anpara A & B is in progress and is likely to be completed by Oct-2023. Entrapment of waste water discharge is included in the scope of ETP contract.	In-Process	October 2023 (Extended from July 2023)	UPPCB
		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, and Installation of ETP for Units A & B is in progress and will be completed by Oct-2023.	In-Process	October 2023 (Extended from July 2023)	UPPCB
		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 Oct-2023.	In-Process	October 2023 (Extended from July 2023)	UPPCB

		Removal of deposited fly ash on the surface of the Rihand reservoir in time-bound manner	Anpara TPP has removed 206540.944 CuM quantity of visible ash from side pocket of Rihand reservoir before 26th July, 2023. The ash removed from Rihand reservoir has been filled in low lying area and stabilized with soil cover simultaneously. <i>OC's Comments: A significant quantity of ash is still visible on the bed surface area which needs to be recovered before the rainy season.</i>	In-Process		UPPCB
		Submission of time-bound action plan for 100% fly ash utilization	Action plan has been submitted.	Completed		UPPCB
		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).	Completed		UPPCB
		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 June 2024. Due to non receipt of clearance to L1 bidder regarding award of contract to entities from border sharing countries, the bids for Unit A and B were annulled. Retendering was done and the latest bid was rejected as it was 106% higher than the estimate. Anpara A & B-TPS:- Third time e-tender is invited on 15.12.2022, part-I is to be opened.	In-Process	June 2024	UPPCB/CPCB
		Upgradation of Anpara TPP ash dyke so as to prevent discharge of water from Morcha Nala into 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). <i>OC's Comments : The Morcha nala is meeting into the operational ash dyke that carries surface runoff from surrounding areas into the ash dyke during rainy season. The excess water from active ash dyke will reach to the Rihand reservoir through spillway No 5. It has been informed by the unit that the study for diversion of Morcha Nala has been conducted through IIT- BHU, Varanasi and LOI has been issued to M/s CWPRS, Pune.</i>	In-Process		Concerned Irrigation Dept./UPPCB
		Establishment of ZLD. UPPCB to levy EC till ZLD is in place.	Anpara A & B are more than 25 years old and there was no provision of ETP & STP. STP has been installed, and Installation of ETP for Units A & B is in progress and will be completed by Oct-2023.	In-Process	October 2023 (Extended from July 2023)	UPPCB
		Imposition and payment of EC of Rs. 1,36,80,000/- for not complying the condition of ZLD for ETP & STP	Civil Appeal has been filed (4581/2022) against the order of Hon NGT in Hon. Supreme court. Hearing on IA for stay application was scheduled on 05.07.2023. <i>Now the case has been disposed off by Hon'ble Supreme Court.</i>	Completed	Completed	UPPCB/CPCB
5	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	AWRS capacity has been increased and has been made functional for recycling of ash water. There is no ash slurry flow in river Renu.	Completed		UPPCB

	Restoration of the river bed areas on which a huge deposition of ash is visible in time-bound manner	Total 58000 cum deposited Ash has been completely removed from the banks of Renu River through LOI No. 212/CMD-VI/OTPS/eT-11/AshRemoval /21-22 dated 04.08.2021 and 636/CMD-VI/OTPS/eT-08/22-23 dated 21.02.2023. Total ash removal work was completed by 31.05.2023. Desilted ash has been disposed in low lying areas in Obra Sec 2 & 3 and stabilized with soil cover. Above that Miyawaki plantation has been done.	Completed	Completed (Timeline - June 2023)	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.	Completed		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. ETP and STP are having effective effluent collection.	Completed		UPPCB
	Connection of CAAQMS to the CPCB/SPCB server	Already connected. Data is available on CPCB/SPCB server.	Completed		UPPCB
	Submission of time-bound action plan for 100% fly ash utilization	Action plan submitted.	Completed		UPPCB
	Installation and commissioning of the FGD system in realization of the revised timeline	LOI for construction of FGD has been issued to M/s KC Cottrell amounting to 152.00 Crore. The firm has finalized the layout and borehole location. Agency will be deployed by 1 Feb 2024 to carry out soil investigation. Reports will be submitted by Feb 2024 and construction work will commence from mid March 2024.	Yet-to-initiate	December' 2024	UPPCB/CPCB
	Adoption of scientific approach for treatment and disposal of MSW	Scope of segregation of dry & wet garbage has been included in the scope of work against Loi no 1996 dated 20.12.2022 and the work is being executed accordingly. Work of conversion of wet biodegradable waste into compost is in process against LOI issued on 03.04.2023 to M/s Shashank Enterprises. Work is under process. Construction of MRF (Material Recycling Facility) center by Nagar Panchayat, Obra is under progress. Procurement of machinery is under process. Work of Construction of MRF by Obra TPS is in progress against LOI issued on 03.04.2023 to M/s OM Sai Construction and will be completed by Apr 2024.	In-Process	April 2024 (Extended from June 2023)	UPPCB
	Installation of flow meters for measuring amount of ash slurry discharged and water recycled through AWRS	Flow meters installed and is in operation.	Completed		UPPCB
	Installation of flow meters for measurement of amount of wastewater treated through the ETP and STP	Flow meters installed and is in operation.	Completed		UPPCB
	Fixing the personal responsibility of the officers seating at management level for causing environmental damage.	Responsibility of three officers of Chief Engineer level 1. Er R. P. Saxena, HOP Obra TPS, 2. Er. Deepak Kumar, HOP Obra TPS and 3. Er. Anand Kumar, CE (E&S), Lko has been fixed and disciplinary proceedings have been initiated.	Completed		
	Establishment of ZLD. UPPCB to levy EC till ZLD is in place.	ETP & STP are operational.	Completed	Completed	UPPCB

		Imposition and payment of EC of Rs. 01,36,80,000/- for discharging untreated wastewater and ash slurry into River Renu	Civil Appeal has been filed (4525/2022) against the order of Hon NGT in Hon. Supreme court. <i>The final judgement has been issued by Hon'ble Supreme Court on date 05.07.2023 and the case has been disposed off.</i>	Completed	Completed	UPPCB/CPCB
6	M/s Anpara 'C' Lanco Anpara Power Pvt. Ltd.	Action to avoid any kind of accident in pipeline carrying ash slurry near the Dibulganj area	As required the immediate action has been taken and the RCC Box Culvert above the ash pipeline has been constructed with adequate strength in such a manner that in future the ash pipe line can be saved.	Completed		UPPCB
		Installation of flow meters to measure the amount of ash slurry discharged into the ash pond and the amount of water recovered and recycled from it	The flow meters on all three lines carrying ash slurry have already been provided since 5.12.2021 and is operational. At recovery line of the Ash Water Recovery System (AWRS) the flow meter has already been provided since year 2017.	Completed		UPPCB
		Submission of a time-bound action plan for 100% fly ash utilization	Action plan has already been submitted.	Completed		UPPCB
		Submission of a time-bound action plan for the installation of the 3rd CAAQMS	LANPL has already been installed the third CAAQMS.	Completed		UPPCB
		Connection of CAAQMS to the CPCB/SPCB server	The all three CAAQMS are Connected with CPCB Server.	Completed		UPPCB/CPCB
		Installation and commissioning of the FGD system in realization of the revised timeline	The tender document floated for EPC bidding purpose.	In-Process	December 2025 (As per FGD Timeline)	UPPCB/CPCB
7	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. All parts of the machine are working satisfactorily. Commissioning of the Filter Press has been completed in May 2023. Filter coltes material got damaged and we have procured new Filter Clothes. <i>It is expected to be Operational in Dec 2023.</i>	In-Process	December 2023 (Extended from January 2023)	UPPCB/CPCB
		Relocation of the OCEMS in order to achieve the desired iso-kinetic sampling for particulate matter.	For isokinetic sampling, we have installed new analyzers for Boiler#6 to #10. Data connectivity of OCEMS with CPCB server is in process and is expected to be completed by Dec 2023. <i>OC's Comments : As informed by the unit for achieving isokinetic sampling for monitoring particulate matter relocation of 05 OCEMS has been completed and the other 05 are yet to be done. The unit is not taking any proactive measures to complete the work in a time-bound manner.</i>	In-Process	December 2023 (Extended from January 2023)	UPPCB/CPCB
		Submission of time bound action plan to relocate the existing CAAQMS	Relocated the existing 01 No. CAAQMS has been completed in March 2022. This is relocated near Civil Office(Colony) Data is linked with CPCB/SPCB server.	Completed		UPPCB
		Completion of installation of another 02 CAAQMS	03 nos. of CAAQMS machine have been installed & commissioned at Renusagar premises at the following locations: Near Gurudwara N17/9 Near D&E Buildings.	Completed		UPPCB
		Connection of CAAQMS to the CPCB/SPCB server	03 nos. of CAAQMS machine have been installed & commissioned at Renusagar premises at the following locations: Near Gurudwara N17/9 Near D&E Buildings. These are connected with CPCB/SPCB server.	Completed	Completed (T/L: December 2023)	UPPCB/CPCB

	Submission of time-bound action plan for 100% fly ash utilization	The fly ash utilization during April 2022 to March 2023 is 122.89 %. The Fly ash utilization the period of April2023to August2023 is 110%. Ash is being disposed of regularly to cement companies, low lying areas & bricks making units etc.	Completed		UPPCB
	Installation and commissioning of the FGD system in realization of the revised timeline	For FGD installation in one unit, we have placed PO to the vendor in the month of Dec. 21. Vendor is from overseas & material receiving may take in approx. 17.5 months. Foundation construction and site readiness & civil work is in progress. Most of the Materials have been arrived. Installation is expected to be completed by April 2024.	In-Process	April' 2024	UPPCB/CPCB
	Adoption of scientific approach for disposal of MSW	MSW management is being done in-house. Segregated dry and wet waste is collected from the residence of the colony. Non-biodegradable waste is being sent to vendors and Biodegradable waste is being converted to compost for in-house utilization. <i>OC's Comments : The Unit has in-house facility for disposal of MSW. Door to Door segregated Dry & Wet Waste collected by Unit. However, proper MSW facility need to established as per MSW. Rule, 2016..</i>	Completed		Municipal Cooperation
	Undertake corrective measures to control the fugitive emissions from raw material storage and fly ash transportation areas	Adequate actions are regularly undertaken in CHP yard area to keep the fugitive emission to the minimum level. 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. Additional mechanical type water sprinkling systems installed along road side and are fully operational. <i>OC's Comments : Very huge fugitive dust was observed in the coal storage area during the recent visit of the committee. The installed water sprinkling system is inefficient to achieve the desired result.</i>	In-Process		UPPCB
	Submission of explanation for dumping the fly ash in haphazard manner	Ash disposed in haphazard manner has been reclaimed and area has been cleaned. Now area is neat and clean.	Completed		UPPCB
	Undertake immediate action for proper disposal of fly ash	Same as above.	Completed		UPPCB
	Establishment of ZLD. UPPCB to levy EC till ZLD is in place.	M/s Renusagar Power has already achieved Zero Liquid Status long ago it is a ZLD unit. We have complete treatment, recycling and reuse of waste water generated to ETP, STP and AWRS (Ash water Recovery System)	Completed		UPPCB
	Imposition and payment of EC of Rs 27,60,000/- for causing the air pollution through burning of MSW and inadequate measures taken to control the fugitive emissions from raw material handling and fly ash transportation areas	Hon'ble Supreme Court in Civil Appeal no. 3856/2022 and Supreme Court has set aside the order.	Completed		UPPCB/CPCB

8	Aluminum Smelter: M/s HINDALCO Industries Ltd, Renukoot, Sonbhadra	Take corrective measures to achieve the ZLD	ZLD status achieved since November 23,2021. <i>OC's Comments : 1) As prescribed in the consent condition issued by UPPCB, the unit was instructed to achieve ZLD for industrial effluent and reuse of domestic effluent. In no case, the unit is allowed to discharge effluent outside the premises. Similarly, the ZLD condition has also been imposed through the environmental clearance issued by MoEF&CC on 02.12.2011. 2) Though the unit has achieved ZLD for process effluent, yet to achieve ZLD for domestic effluent. The unit has installed STP for the treatment of 24 MLD sewage generated from the residential colony. However only 12 MLD sewage is been treated and partial quantity is being recycled. The unit is directly discharging some of the sewage generated from their residential colony without any treatment into the natural drain.</i>	In-Process	-	UPPCB
		Ensure environment friendly disposal for the huge quantity of bottom ash stored in open inside the plant premises	Total of approx. 4.87 Lacs MT of stored bottom ash has been utilized for developing low-lying areas. Currently, there is no bottom ash stored inside the plant premises.	Completed	-	UPPCB
		Proper treatment and disposal of the MSW	We have installed combination of mechanized equipment for handling, segregation, treatment, and disposal of collected MSW waste. The cost of project is approx. Rs. 163.51 lacs which includes equipment cost, civil & electrical at area of 1.515 hectares which is in our plant premises. The area is developed at RCC flooring with impervious lining. Through Trommel of different sizes wastes are separated into dry and wet categories. Dry waste is being sent to approved recyclers/vendors and wet waste is converted into compost.	Completed	Completed (Timeline - March 2023)	Municipal Cooperation
		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. <i>OC's Comments : Committee observed that the unit is very causal on the part of red mud Management (handling, storage, and transportation). They have still not procured/having sufficient mist gun/ fog cannons, specific water spraying system for dust suppression specially in the red mud dumping areas. Green belt (trees, shrubs, green cover) development in an around the red mud area is non-significant. It has been found that the some of the area of the red mud site is converted to garden by using ample amount of earthen soil. However, most of the red mud storage area is kept open without any dust suppression system, due to which huge airborne dust is generated during vehicular movement and during windy condition.</i>	In-Process	-	UPPCB

		Establishment of ZLD. UPPCB to levy EC till ZLD is in place.	ZLD for plant has been established and sustaining since November 23, 2021. A copy of communication to this effect given to RO, UPPCB vide dated 23.11.2021. <i>OC's Comments : Though the unit has achieved ZLD for process effluent, yet to achieve ZLD for domestic effluent.</i>	Completed		UPPCB
		Imposition of and payment EC of Rs. 1,36,80,000/- for not achieving the prescribed ZLD condition and discharging untreated sewage into the environment (Responsibility: CPCB/SPCB)	ZLD for plant has been established and sustaining since November 23, 2021. A copy of communication to this effect given to RO, UPPCB vide dated 23.11.2021. Civil appeal has filed (4525/2022) against the order of Hon'ble NGT in Hon'ble Supreme Court.Hearing on IA for stay application is scheduled on January 17,2023. Hon'ble Supreme Court vide order NO. 3856/2022 dated July 05,2023 has disposed of the afforsiad appeal.	Completed	Completed	UPPCB/CPCB
9	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	At present, there is no fire in coal stock yard at Bina project. However, to meet the above exigency following measures are there at the Bina project:- 1. A new fire tender has been commissioned at Bina project as additional firefighting equipment. 2. There is a specific team (properly trained) working under Fire Fighting Officer (FFO- Bina) to tackle fire hazard in Bina mine. 3. Fire hydrant pipeline is provided near abandoned coal stock yard covering the periphery of coal stock yard. 4. Truck mounted mist spraying guns along with mobile sprinkler (70 KL and 28 KL) are provided to control fire hazards. 5. In addition to this, 1 no. of fixed fog canon along with pipeline and pumping arrangement has been provided near coal stock yard no.2 for control of fire.	Completed		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 at GM Office, Bina Project, where, record is being maintained where fugitive emissions are visible in CCTV cameras and corrective action taken on the report.	Completed		UPPCB
		Strengthening of the vigilance mechanism to identify the default transporters and take stringent action against them	Compliance of fully tarpaulin covered trucks is being ensured by at Bina Project. Random inspections are being carried out to report default transporters. Further stringent action will be taken against any default transporter. <i>1). It is ensured that trucks exiting Bina Mine are fully covered with tarpaulin sheets only. Strict action will be taken against those who are found not using tarpaulin sheets for covering the trucks. 2). For fugitive emissions along the public road (Auri Mode-Shakti Nagar), the following measures are taken by Bina Project management: i) 1 no. of road sweeping machine is working at Bina Project for mechanized sweeping. ii). Apart from mechanized sweeping, manual sweeping of the public roads is being done on daily basis. iii) 2 no. of truck mounted mist spray guns are working in Bina Project for further reduction in the fugitive dust emission.</i>	In-Process	Regular activity	UPPCB

		Effective tyre washing facility for transport vehicles	Construction work of tyre washing facility has been completed and it is now operational.	Completed	Completed (Timeline - March 2023)	UPPCB																												
		Treatment and disposal of MSW generated in the residential colony	Proper treatment and disposal of MSW generated in residential colony is ensured. LOA issued for the work "Development of dust dumping/waste collection, segregation/ composting yard and providing dust bin in colony at Bina project" vide No.B Civil/LOA/22-23/16/361 dt. 19/07/2022 to M/s Artana Waste Management solutions, Vadodara, Gujarat.	Completed	Completed	Municipal Cooperation																												
		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.	<p>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.</p> <p>Approx. 30 to 40 Million tons of fly ash will be accommodated into this mine void.</p> <p>The last Six year overburden and coal production figure of NCL Bina Project are as follows:</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Year</th> <th>Coal Production(MTPA)</th> <th>Overburden Removal (Million m3)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>2022-23</td> <td>10.5</td> <td>52.52</td> </tr> <tr> <td>2.</td> <td>2021-22</td> <td>9.00</td> <td>44.37</td> </tr> <tr> <td>3.</td> <td>2020-21</td> <td>8.413</td> <td>36.35</td> </tr> <tr> <td>4.</td> <td>2019-20</td> <td>7.500</td> <td>38.42</td> </tr> <tr> <td>5.</td> <td>2018-19</td> <td>7.500</td> <td>29.73</td> </tr> <tr> <td>6.</td> <td>2017-18</td> <td>7.500</td> <td>25.89</td> </tr> </tbody> </table> <p>As it is evident from the above table, that Bina Mine operates at a high stripping ratio (ratio of volume of waste rock to be removed per ton of coal). There are following constraints in fly ash filling in overburden mines.</p>	S. No.	Year	Coal Production(MTPA)	Overburden Removal (Million m3)	1.	2022-23	10.5	52.52	2.	2021-22	9.00	44.37	3.	2020-21	8.413	36.35	4.	2019-20	7.500	38.42	5.	2018-19	7.500	29.73	6.	2017-18	7.500	25.89	In-Process	December 2023	UPPCB/CPCB
S. No.	Year	Coal Production(MTPA)	Overburden Removal (Million m3)																															
1.	2022-23	10.5	52.52																															
2.	2021-22	9.00	44.37																															
3.	2020-21	8.413	36.35																															
4.	2019-20	7.500	38.42																															
5.	2018-19	7.500	29.73																															
6.	2017-18	7.500	25.89																															
		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.	Completed		UPPCB/CPCB																												
10	M/s Northern Coalfields	Regular operations of ETP	Continous operation of ETP is ensured.	Completed		UPPCB																												

Limited (NCL) (NCL Dudhichuwa Project, Sonbhadra)	Utilization of the treated effluent to achieve zero discharge	<p>Treated Effluent from ETP is effectively being used in Water sprinkling, Fire fighting and washing of HEMM and zero discharge is maintained. <i>As per suggestion of OC, proposal for study of maintenance and upgradation of Existing ETP has been moved. Construction of Two no. of Bunds in Ballia Nallah to stop any discharge in Balia Nallah would be completed by March 2024. Project will try to expediate its progress.</i></p> <p><i>OC's Comments : At the time of inspection existing ETP was operational, however team suggested to upgrade the Existing ETP w.r.t. Oil & grease tank & sludge drvina beds.</i></p>	In-Process	March 2024 (for bunds)	UPPCB
	Ensure that no treated/untreated effluent will be discharged into the Balia Nalla which finally meets the Rihand reservoir	<p>Arrangements have been made to stop discharge of untreated water from mine into Ballia nallah except rainwater & surface water. Sumps have been provided to stop the discharge of water and cleaning of sumps done on yearly contract basis for controlling water seepage. Treated water from existing 30 MLD ETP is being reused for water sprinkling for dust suppression in mines to maximum extent possible for ensuring zero discharge.</p> <p>Work proposed :</p> <ol style="list-style-type: none"> 1. Proposal for study of maintenance and upgradation of Existing ETP has been moved. 2. As per OC's Comments, Construction of Two no. of Bunds in Ballia Nallah to stop discharge in Balia Nallah would be completed by March 2024. Project will try to expediate its progress. <p><i>OC's Comments : Previously, rain water was flowing through entire slope of the dump. Now, HDPE pipes provided at dumps next to ETP to prevent siltation near ETP and in Ballia Nallah. Two no. of Bunds are under Construction in Ballia Nallah to minimize the discharge in Balia Nallah. The target date was given for March 2024. However, the progress is slow</i></p>	In-Process	March 2024 (for bunds)	UPPCB
	Explore the possibility to monitor the status of fugitive emissions through the existing CCTV network provided for monitoring of production activities	<p>CCTV network has been provided for monitoring of production activities in the Project. CCTV network is utilized for monitoring of fugitive emissions. In case of appearance of fugitive emissions on CCTV, immediate action is taken.</p>	Completed		UPPCB
	Strengthen the vigilance mechanism to identify the default transporters and take stringent action against them	<p>Coal transportation through road despatch is allowed only if trucks are covered with tarpaulin. CCTV has been installed at the exit check post. Security Guards at the check post has also been posted at exit point to ensure the strict compliance.</p> <p><i>As per OC's Comments, only truck with tarpaulin cover are being allowed to exit mine barrier for road transportation. trucks covered with thin LDPE sheets/ green net are now not being allowed. Dispatch incharge has issued a letter in this regard.</i></p>	In-Process	Regular activity	UPPCB
	Effective tire washing facility for transport vehicles	<p>Proposal of tyre washing facility at Dudhichua Project is in final stages of approval. Expected to be completed by March 2024. Delay is due to financial sactions regarding the moved proposal.</p>	In-Process	March 2024 (Extended from May 2023)	UPPCB

		Treatment and disposal of MSW generated in the residential colony	Residential colony of Dudhichua lies in Singrauli Municipal limits of MP state. Door to Door collection of waste is being done and waste thus collected is segregated as Dry and Wet waste. Wet waste is converted to compost and Dry waste is handled by Singrauli Municipal Corporation.	Completed		Municipal Cooperation
		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	<p>1. There is only one abandoned mine in NCL namely Gorbi OC where three voids are available. Out of three voids, NCL has already offered one void to NTPC-VSTPS and one for UPRVUNL for fly-ash filling through MoU signed on 03.01.2019. Approx. 30 to 40 million tons of fly ash will be accommodated into this mine void. Thereafter remaining one void may also be made available for fly ash filling.</p> <p>2. Correspondence has also been done to DGMS to get instructions and permission for disposal of fly ash.</p> <p>3. Work Order to CIMFR for "Feasibility study in utilizing fly ash in the running Nigahi mine of NCL in view of the recent Fly Ash Notification dated 31st December, 2021 through CSIR CIMFR, Dhanbad"., given on 10.01.2023., which will include Field Trial, which may pave way for dumping of fly ash in mines of NCL</p> <p>4. As per the minutes dated 18-8-22 of the first meeting of the committee constituted under the Chairmanship of Chairman CPCB for identification of the mine for backfilling of mine voids with ash or mixing of ash with OB dump, a team of experts of CMPDI, CIMFR and representatives of CIL and SCCL shall examine the findings of studies already carried out for disposal of ash in operational coal mines by mixing with OB dump and give suggestions to facilitate ash disposal in operational mines and any studies that needs to be carried out for this purpose. Action plan will be submitted on the basis of recommendations of above mentioned study.</p>	In-Process	March'2024 (Extended from December 2023)	UPPCB/CPCB
		Imposition and payment of EC of Rs. 1,36,80,000/- for constantly discharging untreated effluent into the Balia Nalla.	<p>Period (01.08.2020 to 31.10.2021) for which fine has been imposed includes monsoon and other seasons. Water cannot be held in the mines during rains including monsoon and non-monsoon seasons concerning safety of men and machinery. Moreover sudden make of water due to groundwater surge is beyond control. This imposition of EC is on account untreated effluent into Ballia nalla. However water is being pumped to ETP and after due treatment is utilised for dust suppression, fire fighting and washing of HEMMs.</p> <p>Hon'ble Supreme Court in Civil Appeal no. 3856/2022 and Supreme Court has set aside the order.</p>	Completed		UPPCB/CPCB
11	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	Water treated from ETP is being utilised for industrial use (Sprinkling washing of CHP, Dumper, Doser, Dust Suppression etc). Excess is being dissipated to sedimentation pond in mine area.	Completed	Completed (Timeline - May 2023)	UPPCB
		Entrapment of seepage in the drain at mine water collection sump	Seepage has been arrested in the drain at mine water collection sump.	Completed		UPPCB

	Strengthening of the vigilance mechanism to identify the default transporters and take stringent action against them	Compliance of fully tarpaulin covered trucks is being ensured by Security team & with the help of CCTV. Banning of default truck for certain period is being implemented. It is being ensured that trucks engaged in coal transportation is covered with Tarpaulin, regular security checks and surprise check is being done. Mechanical Dust sweeping m/c is engaged in public road (Auri Mode -Shakti Nagar) by Kakri OCP to clean the roadway dust.	In-Process	Regular activity	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 fortnightly, and the report of the same is being communicated to UPPCB quarterly. CCTV have been installed at strategic points in mine and monitoring is being done through them, however monitoring of fugitive emissions throughout the mines through CCTV is not possible.	In-Process		UPPCB
	Effective tyre washing facility for transport vehicles	Proposal of tyre washing facility at Kakri Project is under process. Proposal sent for administrative approval.	In-Process	Sep 2024 (Extended from May 2023)	UPPCB
	Treatment and disposal of MSW generated in the residential colony	Tender for treatment and disposal of MSW generated by Kakri Colony has been awarded to M/s Artana Waste Management Solutions, Vadodra. The work has been commenced from 05.08.2022.	Completed		Municipal Cooperation
	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.	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. Further, Kakri mine operates at a high stripping ratio of 2 and above (ratio of volume of waste rock/OB to be removed per ton of coal). There are following constraints in fly ash filling in operating mine: 1. Kakri mine is working with only internal dumping of the overburden. The external dump has already achieved their capacity as per maximum permissible height and have been biologically reclaimed. 2. Mine is working with HEMM and there is high traffic density in the mine including dump area. 3. In this regard, a study has been done for NCL Bina mine through an Institute of National repute viz. IIT(BHU). As per results of the technical study: "It is technically not feasible to dump the fly ash in Mine dump due to geo mining conditions, high stripping ratio, and huge rate of OB removal and instability of dump during rainy season in present condition." The same conditions implies on Kakri OCP. Further, field study at NCL in one mine related to mine Backfilling through Fly Ash and its stability analysis is in progress. Tentative schedule of completion is by March 2024. Action plan will be submitted on the basis of recommendations of above mentioned study.	In-Process	Mar 2024 (Extended from Dec 2023)	UPPCB/CPCB
	Open the site of CAAQMS from all the direction	Trees in the close vicinity of CAAQMS, which were pointed out by the NGT Oversight committee in their last visit, have been trimmed to minimize hindrance for horizontal movement of wind.	Completed		UPPCB/CPCB

		Imposition and payment of EC of Rs. 27,60,000/- for discharging untreated/treated effluent into the Rihand Reservoir	<p>With reference to above subject, an EC of ₹ 27,60,000/- has been imposed on Kakri Project NCL for 'Discharging of untreated/ treated water in the Rihand Reservoir'. Kakri Project put forward following points against the EC levied on the project for the above mentioned reason: -</p> <ol style="list-style-type: none"> 1. In November 2021, at the time of the visit of NGT Oversight Committee, no treated or untreated water was being discharged by Kakri Project to Rihand Reservoir. Kakri Project would further reiterate the fact that except monsoon the treated water from ETP is being reused by the Project for washing and dust suppression; any surplus water from ETP is being sent to Siltation pond near mine barrier and other low lying areas near mine and does not reach Rihand Reservoir, the same has already been inspected by NGT Oversight Committee on their previous visits. 2. Further, neither detailed violation was communicated or any clarification sought from the Project by the NGT Oversight Committee/SPCB on the above mentioned transgression for which EC of ₹ 27,60,000/- has been fined. <p>Hon'ble Supreme Court in Civil Appeal no. 3856/2022 and Supreme Court has set aside the order.</p>	Completed		UPPCB/CPCB
12	M/s Northern Coalfields Limited (NCL) (NCL Khadia Project, Sonbhadra)	Continuous operations of the ETP	Continuous operation of ETP is being ensured.	Completed		UPPCB
		Ensure that no treated/untreated effluent will be discharged in to the environment	<p>Additional provision for feeding raw water into ETP has been provided to ensure that untreated water reaches ETP for treatment. Currently no treated / untreated water is being discharged outside mine premises. Also, Two new Siltation ponds have been created to further arrest silt from surface run off flowing outside.</p> <p><i>OC's Comments: One by-pass arrangement was found through the mining area, which is carrying black colour effluent into the Rihand reservoir. It is informed that the said drain is mainly carrying the reject of water treatment plant installed for the purpose of supplying drinking water to the various NCL mines. However, during travelling, it is carrying the coal dust from the area and gets polluted.</i></p>	Completed		UPPCB
		Regular operation of the water spraying system for effective control of fugitive dust emissions	<p>Multi approach water sprinkling is in place at Khadia Project:-</p> <ul style="list-style-type: none"> • Water sprinkling on haul roads is being done through departmental and contractual water tankers. • Fixed water sprinklers have been installed near coal yard. • Regular sprinkling is being ensured in CHP at all transfer points for control of dust emissions. • Four Fixed Fog cannon has been installed near coal yards. • Two nos. of truck mounted fog cannon system (one departmental and one hired) are operational. 	Completed		UPPCB

	Strengthening of the vigilance mechanism to identify the default transporters and take stringent action against them	It is being strictly monitored through a network of CCTV cameras on the exit gates of the mine and no truck is being allowed to go out without tarpaulin covering. 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. With regard to use of tarpauline cover of 400 GSM or more, instructions have been issued to all the cola transporters and same has also been incorporated in the Dispatch Orders (DO) issued to parties.	In-Process	Regular activity	UPPCB
	Effective tyre washing facility for transport vehicles	Installation of tyre washing system is already under tendering process. For the purpose of installation of tyre washing facility, Khadia Project has floated tenders 03 times. In first 02 tenders, no bidder was technically qualified and the third bid, only a single bidder was qualified but had been banned by M/s GSRTC, Gujrat and hence, Khadia project had to cancel the tender. The installation of tyre washing system is currently under tendering process.	In-Process	September 2024 (Extended from December 2023)	UPPCB
	Proper treatment and disposal of MSW generated in the residential colony	MSW site has been completed and wastes are being disposed as per Solid Waste Management Rules, 2016.	Completed	Completed (Timeline - July 2023)	Municipal Corporation
	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	"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. Apart from this, an MoU has also been signed between NCL and Anpara Thermal Power Station for filling of fly ash in Pit-3 of abandoned mine of Gorbi. With respect to Khadia Opencast Project, The last Seven year overburden and coal production figure of NCL Khadia Project are as follows: S. No. Year Coal Production(In MnTonne) Overburden Removal(Million m3) Stripping ratio 1. 2022-23 15.00 54.84 3.66 2. 2021-22 14.00 51.68 3.69 3. 2020-21 14.00 49.28 3.52 4. 2019-20 13.18 39.62 3.01 5. 2018-19 11.40 44.56 3.91 6. 2017-18 8.80 39.31 4.47 7. 2016-17 6.006 24.67 4.11	In-Process	March 2024 (Extended from December 2023)	UPPCB/CPCB

		Ensure that the site of CAAQMS is open from all the direction	It is being ensured that CAAQMS is free from obstruction in its surroundings.	Completed		UPPCB
		Imposition and payment of EC of Rs. 27,60,000/- for discharging untreated/treated effluent into the Rihand Reservoir	The fine of Rs 27,60,000 was recommended in the order dated 18.01.2022 in the O.A. no of 164/2018. However the same order was considered in Hon'ble Supreme Court in Civil Appeal no. 3856/2022 and Supreme Court has set aside the order (Copy of the order is enclosed herewith).	Completed	Completed	UPPCB/CPCB
13	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	At present 71 nos. CCTVs have been installed at different points in the mine Monitoring of fugitive emissions and other environment & safety related aspects have been already being done regularly from field and GM office.	Completed	-	UPPCB
Strengthening of the vigilance mechanism to identify the default transporters and take stringent action against them		The Transportation agencies have been instructed time to time for steps to avoid spillage of coal during transportation on public roads. Strict action are being taken against the uncovered trucks if found. The despatch of coal from Krishnashila project through road mode is very less. Further It is is being ensured that trucks exiting Krishnashila Mine are fully covered with tarpaulin sheets only. Strict action is taken against the those who are not found using tarpaulin for covering of trucks. Construction of Tyre washing facility has been completed jointly for Bina & Krishnashila projects. Domestic roading sweeping machine is also being used for mecahnised sweeping of road.	In-Process	Regular activity	UPPCB	
Effective tyre washing facility for transport vehicles		Construction of Tyre washing facility has been completed jointly for Bina & Krishnashila projects.	Completed	Completed (Timeline - March 2023)	UPPCB	
Proper treatment and disposal of MSW generated in their residential colony		For the management of solid waste for Krishnashila B, C & D type quarters in Bina Colony, door to door collection, segregation and disposal of solid waste is already being done. A separate composting facility has been developed for disposal of organic solid waste.	Completed	Completed (Timeline - June 2023)	Municipal Cooperation	

		<p>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</p>	<p>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.</p> <p>Further mine operates at a high stripping ratio of 3 and above (ratio of volume of waste rock/OB to be removed per ton of coal). There are following constraints in fly ash filling in operating mines:</p> <ol style="list-style-type: none"> 1. Krishnashila mine is working with only internal dumping of the overburden. The external dump has already achieved their capacity as per maximum permissible height granted by MoEF&CC and have been biologically reclaimed. 2. Mine is working with HEMM and there is high traffic density in the mines including dump area. 3. The Krishnashila OCP has limited life and requires additional space to accommodate OB of more than 100 MCum as per PR/Mining Plan. 4. In this regard, a study has been done for NCL Bina mine through an Institute of National repute viz. IIT(BHU). As per results of the technical study: "It is technically not feasible to dump the fly ash in Mine dump due to geo mining conditions, high stripping ratio, and huge rate of OB removal and instability of dump during rainy season in present condition." The same conditions implies on Krishnashila OCP. <p>Further 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 March 2024. Action plan will be submitted on the basis of recommendations of above mentioned study.</p>	<p>In-Process</p>	<p>March 2024 (Extended from December 2023)</p>	<p>UPPCB/CPCB</p>
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14	M/s Grasim Industries Limited Chemical Division, Renukoot, Sonbhadra	Submission of the clarification regarding the discharge of chemically contaminated effluent into the drain	<p>Non-Justifiable Allegation</p> <ul style="list-style-type: none"> We would like to humbly submit that the unit is not discharging any effluent outside their premises as the unit is ZLD. It is pertinent to mention that Industry has already installed ETP, RO, MEE and STP to treat effluent as well as sewage and achieved Zero Liquid Discharge since 2017. Adoption of ZLD means comprehensive management of wastewater, through reduced use, efficient recycling and treatment to ensure Zero Liquid Discharge. Intimation to the Board about installation and commissioning of Zero Liquid Discharge system is done vide our letter No. GIL/ENV/17-18/204 dated 17.11.2017. Unit being committed ZLD Unit, is not at all discharging any effluent outside the premises since inception of its ZLD systems. Mere assumption and suspicion of underground pipeline is just surprising and not at all true. The alleged discharge seen in remote area is not at all attributable to our Unit as there are scores of other units which may be sources of effluent, like Railways, vehicle repairing workshops etc. in and around. We are committed for the operationalization of state of the art effective environment management systems at our Unit. A total cost of about Rs 15 Crores has been incurred by the unit for continual improvement is ZLD systems. We assure to extend our full support during the PCB inspection visits. 	Completed		UPPCB
		Ensure environment friendly disposal of all the brine sludge stored in open pit	<p>Status: Fully Complied</p> <ul style="list-style-type: none"> Disposal of membrane cell plant brine sludge, was started since December'2019 to authorized TSDF at Kanpur, M/s Re-Sustainability Limited, [formerly known as Ramky Enviro Engineers Ltd] & M/s Bharath Oil & Waste Management Ltd. The disposal process of legacy brine sludge has been completed as on date 31-07-2022. Intimation of this has been given by the Grasim-Renukoot Unit vide letter dated 01-08-2022 to the Regional Officer & Member Secretary, U.P.P.C.B. The brine sludge generated on daily basis shall be stored in intermittent storage site, developed as per CPCB Guidelines and regularly disposed through TSDF-Kanpur, under contract agreement. At present no legacy brine sludge is stored inside the plant premises. 	Completed		UPPCB

		<p>Completion of the remediation activities in the time bound manner of the area wherein the ash has been dumped</p>	<p>Status: Fully Complied</p> <ul style="list-style-type: none"> • Process of reclamation has already been successfully completed. • The total land area of Grasim Industries Limited-Chemical Division-Renukoot is 325 acres. Out of this 62% of the area has been developed as Green Belt which is just double the green belt development target of National Forest Policy. • In compliance to the direction given by Member Secretary-UPPCB, vide letter GOOO691/Miyawaki/2021 dated 22.09.2021, Grasim Unit has completed Miyawaki Plantation at its Fly Ash Reclamation site. Successful reclamation has also been affirmed by the authorities. • The said afforestation covers about 5000 Sq. Mt. area with 15000 trees planted, apart from this additionally 3050 trees have also been planted to attain 100% sustainability. • Intimation to this affect has already been submitted to the PCB authorities vide letter dated 01.08.2022. A copy of intimation letter is attached herewith as Annexure-3 • At present Unit is having 100% disposal of flyash being generated through its CPP. A copy of flyash inventory & Annual flyash Compliance Report of the Unit submitted to MoEFC&CC, CPCB & UPPCB. • In aforesaid circumstances, the reclamation of fly ash area having completed successfully, under intimation of authorities it is evident that no further action plan is required in this regard. • Intimation through e-mail dated 14.11.2022 along with and Hard Copy, has been sent to MoEFC&CC, Hazardous Substances Management Division, New Delhi. 	<p>Completed</p>		<p>UPPCB</p>
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		<p>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</p>	<p>Matter sub-judiced before Hon'ble Apex Court</p> <ul style="list-style-type: none"> It is humbly submitted that shifting of capped mercury brine sludge matter is sub-judice before the Hon'ble Supreme Court, in which interalia Central & State Pollution Control Board authorities are also party. The study conducted by NEERI for the capped SLF is already submitted to all concerned regulators. As per NEERI report: "It was observed that mercury was not leaching from the SLF and also not contaminating the groundwater. In view of this, it was not recommended to decommission the stabilized SLF for shifting the mercury sludge. The report recommended the construction of storm water drainage (leachate collection system) around the SLF and treating this in existing ETP. It was observed that GRCD has installed leachate collection system and the leachate is being treated in the existing ETP. The summarise, study has revealed that the mercury sludge in SLF is stabilized and there is no considerable evidence for leaching of mercury in SLF. Geologically, the study area is comprised of Precambrian rocks, which is very hard rock and has no permeability" Hon'ble Supreme Court took into consideration the NEERI Report, where it has opined that from the point of view of environmental perspective, it was not recommended to open the Secure Landfill Resource [SLR] and thus, shifting of Mercury bearing brine sludge would cause environmental hazards and no method has even been informed to the appellant besides queries raised the concerned authorities. 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 the disposal of the Hon'ble Apex Court. 	<p>In-Process</p>		<p>UPPCB</p>
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15	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	<p>1. The company has installed ETP & STP for treating effluent & sewage respectively and achieved Zero liquid discharge since 2011.</p> <p>2. Birla Carbon is a global company and follow Global standards on Safety, Health & Environment. Our Global standards provides holistic approach on management of water through reduced use, effective treatment and efficient recycling to ensure Zero Liquid Discharge.</p> <p>3. Birla Carbon functions responsibly towards environment and don't discharge any effluent outside the plant boundary wall.</p> <p>4. The company has installed 360 degree camera, in the year 2018, for continuous monitoring of ZLD system. The online feed of the camera reaches to CPCB round the clock.</p> <p>5. The company has constructed dike wall for arresting any possible leakages around ZLD area in February 2021.</p> <p>6. Additionally, the company has constructed pit to collect and recycle the water used for floor washing of ZLD area in February 2021.</p> <p>7. The area between plant boundary wall and ZLD is being cleaned regularly.</p> <p>8. A path way has been constructed nearby boundary wall for ensuring Zero discharge in June 2021.</p> <p>8. A Camera has also been installed in the area between plant boundary wall and ZLD for continuous monitoring of the area for Zero Discharge in June, 2021.</p>	Completed		UPPCB
16	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 isstructurally sustainable and safe for adequacy for handling of fly ash generated from TPSs. Suggested to carry out regular maintenance of the slope due to erosion during monsoon season. 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.	Completed		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.	Completed		MPPCB
17	Mahan Energen Ltd. Singrauli, MP.	Submission of time-bound action plan for 100% fly ash utilization	Detailed Action plan already submitted to MPPCB , Fly Ash will be utilized in Cement Plant, Brick Plant and filling of low lying area	Completed		MPPCB

18	M/s Sasan Mega Power Ltd.	Ash cleaning work from Goiwahai drain within 1 month .	<p>The site restoration job including cleaning of Goiwahai Drain is already completed and a letter informing about the compliance to the directives was submitted to MPPCB on 31st Oct, 2020 and NGT Committee on 28th Dec 2020. Further additional preventive measures were taken during the raising of our existing ash dyke like provision of earthen bunds to prevent any ash escape, proper compaction of ash and soil, immediate soil covering of area completed with ash hearting, construction of slope and toe drains to channelize the rain water, providing rock toe at the base and grass turfing at the slope to ensure no fly ash escape into the nallah.</p> <p>Further. the detailed report along with photographs and complete videography of Goiwahia, Thargatta and Garra drain has been submitted to MPPCB vide letter No. SPL/ EMG/ 2023-24/07 dated 10.05.2023 and e-mailed on 11.05.2023 and also updated to MPPCB time to time as directions received.</p> <p>OC's Comments: The committee has visited the Gawaiyya & Thargatta nala, and observed that the banks and the drain bed were clean. The ash deposition along the nala is diminishing naturally with the passage of time. The unit need to take action on cleaning of the ash at the confluence point of drain to river.</p>	In-Process		Concerned Irrigation Dept. and SPCB
		Take control measures to prevent fly ash discharge to Goiwahai drain and finally the Rihand River	Same as above.	Completed	Completed	Concerned Irrigation Dept. and SPCB
		Grievance redressal of affected people near Tola Badi village, Harrahawa village and other affected villages along the Goiwahai drain	<p>All the earlier grievances are settled as per the recommendations of District administration and also additional compensation were paid.</p> <p>Further, grievance redressal mechanism is established to address the complaints and grievances of stake holders through coordination with district administration (Tehsildar/SDM) and village panchayat.</p> <p>Company's CSR team regularly visits the surrounding villages and genuine grievances, if any, are timely resolved.</p>	Completed		MPPCB
		Obtain prior permission from MPPCB before any disposal of ash in the low lying areas	No disposal is being done in the low lying area. However, necessary permission from the SPCB shall be obtained in case the disposal is done in low lying area.	Completed		MPPCB
		Submission of time-bound action plan for 100% fly ash utilization	Action plan submitted	Completed		MPPCB
		Stability study of bunds created around the ash dykes/low lying areas periodically	<p>Sasan Power Ltd. has appointed IIT-BHU to carry out ash dyke stability study. The detailed study has been conducted in July, 2020 and the report was submitted to your good office vide our letter dated 16.09.2020.</p> <p>In addition to this, the stability and strength of the ash dyke is being monitored annually by the IIT-BHU before the monsoon period. Pre Monsoon Inspection for stability and strength of the Ash Dyke for FY 22-23 and 23-24 were conducted in May, 2022 and June 2023 and the reports have already been submitted to MPPCB vide letters dated 12.07.2022 and 11.07.2023, respectively.</p>	Completed	Completed	MPPCB

	Study by IIT-BHU regarding the impact on aquifers due to fly ash breach	The IIT-BHU has submitted the final report on “Hydrological Study in and around Sasan Power Limited” and copy of the said report is already submitted to MPPCB vide letter dated 22.04.2022.	Completed		MPPCB
	Conduct environmental damage assessment studies with CSIR-NEERI due to fly ash breach	<p>NEERI was engaged for the said study on 21.04.2020. They visited the site from 22 – 26th Dec 2020. During the site visit NEERI carried out detailed site survey and collected the samples required for the study.</p> <p>As understood from NEERI, they have completed the analysis of total 89 samples which were taken during the first site visit (49 of water, 32 of soil, 05 of ash and 03 of crops/plants). They are in the process of collating and analyzing the results of the samples collected. All the above samples are analyzed for physicochemical properties and heavy metal characteristics.</p> <p>Another round of sampling was taken during last week of June 2021 and December, 2021 for consolidation and verification of the results obtained for samples collected during their previous site visit.</p> <p>We have received the draft report from NEERI and we are in process of review of the report, expected to be submitted by 30th Sep 2023. SPL has engaged institutes of repute namely NEERI, Nagpur and IIT – BHU. NEERI carried out monitoring, analysis and estimated the environmental damage compensation. Further IIT – BHU carried out the revalidation/ reevaluation of the assessment methodology and final calculations. The final report is under review and expected to be submitted by 15.02.2024.</p>	In-Process	15th February, 2024 (Extended from 31.03.2023)	MPPCB