

Joint Committee Report in reference to Hon'ble NGT order in the
matter of Original Application No. 580/2022, Mukesh Singh Vs
State of Uttar Pradesh.

1. Hon'ble NGT has constituted a joint committee vide its Order dated 30.09.2022 in Original Application No. 580/2022, Mukesh Singh Vs State of Uttar Pradesh. The operative part of the order is as follows: -

".....6. In view of the allegations made in the application, we also consider it appropriate that a Joint Committee be constituted to verify the factual position. Accordingly, we constitute a Joint Committee comprising of representatives of CPCB, State PCB and District Magistrate, Sonbhadra and direct the same to meet within four weeks, undertake visits to the site, look into the grievances of the applicant, associate the applicant and representatives of the project proponent, verify the factual position and submit its report within six weeks by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Supported PDF and not in the form of Image PDF. The State PCB will be the nodal agency for coordination and compliance....."

2. For the compliance of Hon'ble NGT directives following members have been nominated by the concerned departments:-
- Shri Sahdev Kumar Mishra, ADM (F/R), Sonbhadra.
 - Shri Rajendra D Patil, Scientist-D, CPCB RD-Lucknow; and
 - Dr. T. N. Singh, Regional Officer, UP PCB, Sonbhadra.



3. The Committee conducted the field visits along with the applicant Mukesh Singh on 03.11.2022 and 29.11.2022. The detailed discussion was made with the applicant to understand his concerns.
4. Khadia Opencast coal is an operating mine under Northern Coalfields Limited (NCL), a subsidiary of Coal India Limited (Maharatna Company), under the Ministry of Coal, Govt of India. The subject mine falls partly in Sonebhadra District of Uttar Pradesh & partly in Singrauli District of Madhya Pradesh and operating under Khadia Area of NCL. The area is undulating and hilly terrain. The elevation varies from 420 m to 440 m above MSL (Mean Sea Level). The drainage of the area occurs through Ballia nallah in the south, which join the GBP Sagar Reservoir on the south.
5. Khadia Opencast coal mining Project is operating since 1981-82. The present production capacity is 14.00 MTPA of coal in an area of 1640.00 Ha from the three working seams namely Purewa Top, Purewa Bottom, and Turra with an average stripping ratio of 4.23 m³/T. The gradient of the seams varies from 20 to 40. The average grade of coal is G-8 (calorific value in the range 4900-5200 Kcal/Kg).
6. Latest EC has been granted by MoEF&CC vide letter No. J-11015/255/2006-IA-II (M) dated 23.03.2016, whereas the EC for the expansion is under consideration. Similarly the unit have valid consents under Air & Water Acts.
7. The details of the coal production and overburden generation during 2016-22 is as tabulated below.



Year	Coal Production(in Million T)			Overburden removed (in Million m ³)
	In UP	In MP	Total	
2016-17	3.453	2.553	6.006	24.67
2017-18	5.163	3.637	8.800	39.31
2018-19	6.958	4.442	11.40	44.56
2019-20	8.302	4.881	13.183	39.62
2020-21	7.8905	6.1095	14.00	49.28
2021-22	8.659	5.340	14.00	51.68

8. Linked End Use Plants are Anpara Thermal Power Station (1630MW) of UPRVUNL, Lanco Anpara TPS (1200MW) & Basket Linkage.
9. As per the information provided by the unit, since its commencement in 1981-82 and the unit have produced 152.32 million ton of coal and removed 589.32 million m³ of overburden till 31.03.2022.
10. The complaint raised by the applicant is regarding dumping of overburden by Khadia Project of Northern Coalfields limited at Nawatola village Khadia, Tehsil Dudhi, District Sonbhadra, Uttar Pradesh in violation of environmental norms which is causing severe air and water pollution and posing serious health hazards to the local residents.
11. The following are some of the conditions mentioned in the Environmental Clearance regarding Overburden:-
- 11.1. There is 2 external OB dump with Quantity of 254.33 Mbcm in an area of 258 ha with height of 90 meter above the surface level and 2 internal dumps with Quantity of 1001.39 Mm³ in an area of 808 ha.
- 11.2. Final stage post mining reclamation plan has been prepared considering complete back filling of voids at the end of mining. Mine

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Closure plan has been revised accordingly. As informed by PP no handling of external OBD will be done and only progressive mined out OB will be filled in the mine void.

- 11.3. OB shall be stacked at two earmarked external OB dumpsite(s) only. The ultimate slope of the dump shall not exceed 28° . Monitoring and management of existing reclaimed dumpsites shall continue until the vegetation becomes self-sustaining.
- 11.4. Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check runoff and siltation shall be based on the rainfall data.
- 11.5. An estimated total 1255.72 Mm^3 of OB will be generated during the entire life of the mine. Out of which 254.33 Mm^3 of OB will be dumped in two external OB Dumps an earmarked area covering 258 ha of land. 1001.72 Mm^3 of will be two internal OB dump in covering an area of 808 ha. The maximum height of external OB dump will not exceed 90 m. The maximum slope of the dump shall not exceed 28 degrees. Monitoring and management of reclaimed dump sites shall continue till the vegetation becomes self- sustaining and compliance status shall be submitted to MOEFCC and its Regional Office on yearly basis.
12. Till 31.03.2022, total overburden removed is around 589.32 million m^3 which have been stacked in 04 numbers of dumps. The overburden dump in question is identified as east dump. The details of which as provided by the unit is listed below



- 12.1. Year of start of dumping in East dump: 2002
- 12.2. Area of East dump: 100.84 Ha of external dump and 105.6 Ha of internal dump.
- 12.3. Volume of overburden dumped in east dump: 109.88 M³ in external dump and 100.36 M³ in internal dump.
- 12.4. Total height of the dump: 487 m.
- 12.5. Average dumping being done in east dump: Around 2 Mm³ per month.
- 12.6. Air Pollution Control Measures being taken: Water Sprinkling is being done during transportation of Overburden to the dump. Plantation is being done on finalized area of overburden dumps. The details of plantation done in last four years in east dump of Khadia Area are as tabulated below:

Sr. No.	Financial Year	Area of East dump on which plantation was done	No. of plants planted on East dump
1.	2019-20	6 Ha	15,000
2.	2020-21	8.5 Ha	21,250
3.	2021-22	11.5 Ha	28,750
4.	2022-23	13.81 Ha	34,525
Total		39.81 Ha	99,525

- 12.7. Slope of individual dump bench kept at 37° and Overall slope of dump kept at 28°.
- 12.8. Compaction of loose overburden material through movement of HEMM (Heavy Earth Moving Machinery) like High capacity dumpers, dozers & etc.

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12.9. Major Water Pollution Control Measures taken:

12.9.1. Slope of the bench is kept inward in order to avoid water flow outward on the slope.

12.9.2. Provision of retaining wall at the toe of the dump to avoid silt erosion.

12.9.3. Provision of drains around the dump and sedimentation pond for arresting silt.

12.9.4. Collection of rain water through drains parallel to bench to avoid flow of water through slope of OB dumps and hence to avoid erosion.

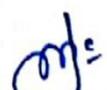
13. The required dump stabilization study is yet to be completed by the unit.

14. Though the unit has taken some of the measures to control the impact of water and air pollution from the dump, further efforts are required to minimise the impact as the residential area is located in the close proximity.

15. As per the district administration 84 numbers of authorized houses are located in the area which is at a distance of 100 m from the nearest overburden dump (east dump). In addition, around 50 numbers of unauthorized houses are also been built in the area.

16. The unit needs to make more efforts to develop the green belt of adequate width by planting native species around the mine lease area on external overburden dump sand on both sides of haul road.





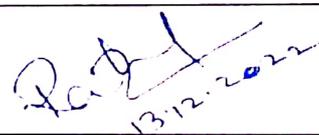
17. Similarly, the constant monitoring of the ambient air need to monitored at the said residential area to evaluate the adequacy of the measures taken by the unit.
18. Finding and recommendations: The residential area is located in close proximity (around 200m distance) from the east dump developed by the coal mine since 2002. Considering the amount of material dumped at the said site shifting of said dump is not a feasible option. At the same time to ensure the environmental safeguard of the people residing in the area the following can be instructed to the unit.
- 18.1. The coal mine can be asked to submit a time-bound action plan to cover the remaining slope area by plantation. Similarly, the patches between the trees should be covered through the green top.
- 18.2. The coal mine should submit the dump stability study report to UPPCB at the earliest.
- 18.3. The coal mine can be asked to conduct a third-party study through the reputed organization to evaluate the effectiveness of measures taken by them to control the air and water pollution from the east dump.
- 18.4. The coal mine can be asked to conduct a health check-up/survey on a quarterly basis of the residents of the village Nawatola to keep track of their health records.
- 18.5. The coal mine can be asked to install & operate CAAQMS to monitor the ambient air at the appropriate location in the said Village Nawatola. Till the time of installation of CAAQMS, manual ambient air





quality monitoring twice a week should be ensured. The data generated through such monitoring should be compared with daily and annual prescribed in the National Ambient Air Quality Standards. The Coal mine can be asked to start the Ambient Air Quality Monitoring immediately and submit the data regularly to UPPCB.

18.6. The unit can be asked to review the measures taken for control of surface runoff water before the start of every monsoon season under the supervision of UPPCB.

Committee member	Signature
Shri Sahdev Kumar Mishra, ADM (F/R), Sonbhadra.	
Shri Rajendra D. Patil, Scientist D Regional Directorate, CPCB, Lucknow.	
Dr. T. N. Singh, Regional Officer, UPPCB, Sonebhadra.	
Date: 13.12.2022	