

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

(By Video Conferencing)

Original Application No. 23/2017 (EZ)
(I.A. No. 05/2019, M.A. No. 28/2018 & M.A. No. 29/2018)

Syed Arshad Nasar Applicant

Versus

Union of India & Ors. Respondent(s)

WITH

Original Application No. 776/2018

Ramchandra Chaurasia Applicant

Versus

State of Jharkhand Respondent(s)

WITH

Original Application No. 373/2019

Pradeep Kumar Singh Applicant

Versus

State of Jharkhand Respondent(s)

Date of hearing: 23.08.2022

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

ORDER

1. These matters relate to enforcement of environmental norms in the operation of quarrying and crushing units in Rajmahal hills of the Vindhya Mountains, District Sahebganj, Jharkhand.

2. As noted in earlier orders, the area is rich in mineral resources. The mining companies or other entities are indulging in indiscriminate mining and operating stone crushers without due regard to the environmental norms. In this process, the hills are blown up. To remedy the problem, the Tribunal passed several orders in the last five years, including prohibiting illegal mining and non-compliant stone crushing activities vide order dated 06.07.2017, followed by order dated 17.04.2018 but due to collusion of the authorities in the State or inaction the situation continues to remain unsatisfactory to the detriment of environment and public health.

3. It will suffice to make brief reference to earlier proceedings. The Tribunal constituted a Committee comprising (a) Senior Scientist/ Engineer from CPCB; (b) Regional Office, EZ, MoEF&CC, Bhubneswar and, (c) Experts from SEIAA and Jharkhand State PCB to undertake study and give a report as follows: -

- “i) Undertake Carrying Capacity Assessment of the area viz-a-viz stone mines and stone crushing units.*
- ii) Undertake Ambient Air Quality Assessment in atleast 10 representative locations of the area.*
- iii) Assess (a) the pollution control devices of the stone mining and stone crushing units in the area and the environmental damage caused and (b) the cost of restoration of such damage.*
- iv) Any other relevant studies cognate to the above.*

In undertaking the task, the Committee may co-opt expert/experts from any institution identified by it.”

4. The report of the Committee was considered on 07.05.2019 and it was found that, inspite of there being large scale violations, no adequate remedial action had been taken. On 11.09.2019, the Member Secretary, State PCB appeared in person and made a statement that there are 407 stone crushers and 300 stone mines. The specific detail of non-conforming

stone crushers and mines were directed to be complied. Further, as per information given by the Member Secretary, 508 units had applied for Consent to Operate out of which 445 had been granted and the case of 24 had been rejected, while in the case of 39, applications for grant of Consent to Operate were under consideration. 293 stone crusher units and stone mining units were found to be non-compliant during the inspections between 11.11.2019 to 17.11.2019 and show cause notices were issued. Interim environmental compensation was levied on 106 units. Total environmental compensation amount was ₹6,33,57,000/- imposed by the State PCB cumulatively on the stone mines and stone crusher units, out of which ₹2,36,25,000/- was upon 55 stone mines and ₹3,97,32,000/- against 141 stone crushing units. The District Task Force demolished 34 illegal crusher units and sealed and demolished another 107 where illegal storage, processing and dispatch of minerals were being indulged in. 70 such illegal processing units (stone crushers) were sealed and demolished. Apart from lodging FIRs, 47 illegal stone crushers were sealed and demolished, as per the inspection undertaken in January, 2019.

5. Vide order dated 05.12.2019, the Tribunal noted that the State machinery failed to control illegal mining and illegal crusher units resulting in large scale damage to the environment. The Tribunal inferred collusion of the State authorities, including the Member Secretary, State PCB with the violators. The Tribunal inter-alia issued following directions:

“26. We direct the Committee constituted vide order dated 22.01.2019 to place before us a table giving the details of the stone mines and the stone crushers separately containing the following particulars:

- a) Name of the mines and crusher units and its locational depiction on the map of appropriate scale.*
- b) Dates of grant of Consent to Establish, Consent to Operate and, also Environmental Clearance (EC) in respect of stone*

mines. The area of stone mines and distance with adjoining mine(s) may clearly be stated.

- c) Adequacy of pollution control devices of stone crushing units.*
- d) Details of individual violations of conditions of EC/Consent to Operate w.r.t. mining units and details of violation of Consent to Operate w.r.t. Stone Crushing units.*
- e) Action taken against those which do not have EC and Consent to Operate and against those which have violated the conditions of EC/Consent to Operate w.r.t. mining units.*
- f) The amount of environmental compensation assessed and recovered along with the individual computation sheets indicating period of default.”*

6. Further, vide order dated 23.09.2020 in the light of report of the joint Committee dated 21.09.2020, the Tribunal noted continuing violations and replaced the earlier Committee with a four-member joint Committee to be headed by an officer of the rank of Joint Secretary in the MoEF&CC, Government of India. The other three members were to be the nominees of Indian Institute of Technology (IIT), Dhanbad, a Senior Officer of CPCB and Secretary Environment, Government of Jharkhand. The said Committee gave its report dated 29.01.2021 which was found to be unsatisfactory vide order dated 22.12.2021. Concluding part of the said order is reproduced below:

“xxxxxx.....xxx

- 18. The Committee failed to extrapolate PM_{2.5} data to PM₁₀ data as was done in matter of OA 1016/2019 by CPCB. PM_{2.5} data shows clearly that there is no supportive carrying capacity and this data needs to be used for carrying capacity computations. NCF (Non-Compliance Factor) in formula has been designed in such a way that the units with most serious non-compliance will have to pay no or least environmental compensation e.g. unit found to be set up without meeting siting criteria will have to pay no environmental compensation or unit consistently not complying with prescribed norms can escape the environmental compensation by using the proposed formula. Further, units complying with 80% of listed pollution control techniques will have to pay no EC as 20% rebate is with any logic.*

19. *For the reasons already given, the recommendations are unacceptable being based against law and science and is unprofessional and hence rejected. However, to the extent stone crushers and mines are non-compliant even according to the Committee need to be forthwith closed, if not already closed.*
20. *In view of failure of the joint Committee to provide sound basis for assistance of the Tribunal, we have no option except to reject the report of the Committee CPCB may assign the task to the Committee which undertook study and submitted report dated 6.10.2020 in OA No. 1016/2019, Utkarsh Panwar vs. Central Pollution Control Board & Ors. The Committee may be steered by Member Secretary, CPCB, who will be free to take assistance from any other expert. The Committee may give its report within three months 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. The report may also be uploaded on the website of CPCB for any response by any stakeholder before the next date.*
21. *We also direct the State PCB to close the illegally operating stone crushers/mines - those not having valid consents, those not following valid siting criteria and those not maintaining laid down safeguards noted in paragraphs 5.3.1 and 5.3.3 in the above report. This may be ensured by a joint Committee of CPCB, State PCB and the District Magistrate and compliance report filed before the next date. The affected parties are at liberty to move this Tribunal, if they are aggrieved.”*

Consideration today and further directions

7. In the light of above, the reconstituted joint Committee headed by Member Secretary, CPCB has filed its report dated 18.08.2022. The report gives details of the stone mining and crushing activities, extent of air pollution and inadequacy of environmental management. Carrying capacity of the area has also been worked out. Relevant extracts from the report are as follows:

“4.2 Calculation and Results

The outcome of the estimations/calculations made by following the above approach is given below;

Out of total 130 grids (i.e., boxes of 4 km x 4 km) in the district, 203 stone crushers and 126 mines are located in 29 grids and 27 grids (i.e. in 32 grids there are crushers or mines) (Figure 8) Grid wise number of stone crushers and minse and their capacity is given in Annexure A1.

- (a) **The total PM10 emission load from the stone crushers located in 29 grids is estimated to be 168.4 TPD. Total PM10 emission load, due to resuspension of road dust on movement of trucks, from all grids comes out to be 68.8 TPD respectively, with maximum PM10 emissions from Grid 1 (20.7 TPD). Total PM10 emission load from the mining activities is estimated to be 3.2 TPD. Overall total PM10 emission load for 32 grids due to operation of stone crushers, resuspension of dust and mining activities is calculated to be 240.4 TPD. PM10 Emission load from mining activities only comprised of 1.3% of the total PM10 emission load. Estimated grid-wise PM10 emission load from the aforementioned activities is summarised in Annexure A 2.**
- (b) Subsequently, PM10 concentration for each grid in winter season was estimated using box model, and is summarised in Annexure A 3.
- (c) Grid wise PM10 Assimilative Capacity/Load, estimated PM10 emission load using calculated PM10 concentration and the resultant supportive Capacity was assessed and is summarized in Annexure A.

It is observed that **supportive capacity is negative in 4 grids, and therefore stone crushing and mining activities need to be controlled in these grids.** Accordingly, the supporting capacity is converted to equivalent crushing & mining capacity using the ratio of net estimated PM10 load and total crushing and mining capacity. This total allowable capacity is further separated to mining and crushing components, using the proportion of contribution of each activity to PM10 emission load in the grid. Thus, **the grid-wise stone crushing and the mining capacity, which may be permitted to operate within the assimilative capacity or available supportive capacity during winter season is computed and is summarized in the Table 14.**

Table 14. Grid wise capacity of stone crushing and mining to be permitted in winters

GRID ID	Stone Crushing Capacity, (TPD)	Allowable crushing capacity (TPD)	Mining capacity, (TPD)	Allowable mining capacity (TPD)
1	11162	6760	5382	5357
2	360	2395	4287	4644
3	8319	6663	6201	6183
4	6980	6742	2656	2655
6	512	2307	NA	NA
7	9582	5283	1135	1128
11	280	5424	NA	NA
12	NA	NA	4017	11673
13	1800	7243	3135	3315
14	51	5335	2277	3573

15	918	7550	1365	1433
16	2639	8946	876	910
17	886	4357	2389	2507
37	3600	7378	2500	2550
47	60	4289	2102	3017
56	NA	NA	958	9213
57	338	5363	NA	NA
64	755	8269	172	195
66	NA	NA	417	8552
88	236	7726	560	727
89	377	8001	1643	2035
98	1018	7870	1906	2112
99	2732	9505	4253	4418
105	270	7460	300	408
107	2640	5909	3693	3773
108	5410	10767	1500	1526
115	158	7456	NA	NA
116	857	7735	547	607
117	5444	7670	7812	7859
118	216	6916	NA	NA
127	550	5232	1041	1144
129	751	8498	834	983

(d) Using **Table 14** above, the **number of stone crushers and mines that can be allowed to operate are estimated based on the capacity of one stone crusher and one stone mine** (Table 15). It is important to note that the crushing capacity for each stone crusher is different, and thus the number of crushers that may be permitted to operate is only indicative in nature, whereas the **overall objective is to achieve reduction in net crushing capacity in the grid to meet the permissible capacity**. List of existing stone crushers and mines (details enclosed as Annexure A 5) and the number of stone crushers and mines that can be allowed to operate, is summarised in following table:

Table 15. No. of stone crushers and mines that can be permitted to operate during winters in 4 grids with negative supportive capacity

GRID ID	Number of stone crushers in the grid	No. of stone crushers that can be allowed to operate[#]	Number of mines in the grid	No. of mines that can be allowed to operate^{##}
1	61	37	10	10
3	22	18	9	9
4	5	4*	5	5
7	29	16	2	2

* Floor function (largest nearest integer which is less than or equal to a specified value) used in this case

Numbers have been calculated considering average capacity of the crushers hence, actual no. may vary as per the exact capacity of the crushers so that the total capacity does not exceed the capacity indicated at Table 14.

Mining capacity may be proportionately reduced to match with the crushing capacity.

4.3 Summary

The carrying capacity for 4 km×4 km grids in Sahibganj District, Jharkhand was assessed using box model. The analysis was done for the critical winter season, when deterioration of air quality is a major concern.

4 grids were found to have negative supporting capacity, thereby reduction in stone crushing capacity is required in these 4 grids, i.e. Grids 1, 3, 4 and 7. It may also be noted that 58% of the stone crushers in Sahibganj district, considered in the analysis, are located in these four grids. According to the assessment, a total of 42 number of stone crushers, i.e. 24 stone crushers in Grid 1, 4 stone crushers in Grid 3, 1 stone crusher in Grid 4 and 13 stone crushers in Grid 7, may not be permitted to operate.

5.0 Assessment for Environmental Compensation

For assessment of Environmental Compensation (EC) for violators with respect to illegal or non-compliant stone mining and stone crushing operation in Sahibganj district, the following methodology may be considered:

5.1 Illegal or Non-Compliant Stone Mining

For assessing Environmental Compensation for illegal or non-compliant stone mining operation, JSPCB shall follow the methodology accepted by Hon'ble NGT in the matter of O.A. No. 75 of 2019 (CZ) (Vijay Singh Rajput Vs. State of M.P. & Ors.), vide its order dated 5.10.2020 as given below:

The volume of the illegal mining of the stone assumed as "**V**" m³, in the length of '**l**' m, width of '**w**' m and depth of '**d**' m

1. The market value per m³ of the stone is Rs X.
The market value is assessed by District Mining Office or State Pollution Control Board.
2. Therefore, the total market value of the **V** m³ illegal stone mines is calculated as **T = V × X** Rs
3. The proposed penalty is calculated as four times the market value of illegal mines Stone, Rs. = **4 × T**

The proposed Environmental Compensation in the Hon'ble NGT matter of O.A. No. 75 of 2019 (CZ) was considered based on the M.P. Land Revenue Code 1956 (as amended) rule 247 (7).

5.2 Illegal or Non-Compliant Stone Crusher

For assessing Environmental Compensation for illegal or non-compliant stone crusher, JSPCB shall follow the methodology prepared by CPCB and accepted by Hon'ble NGT as follows:

- I. Nature of violation** – Discharges in violation of consent conditions, mainly prescribed standards/consent limits.

II. The basis for levying the Environmental Compensation – Pollution Index

III. The environmental compensation is based on the following formula:

$$EC = PI \times N \times R \times S \times LF$$

Where,

EC- Environmental Compensation

PI- Pollution Index of Industrial Sector, **for stone crusher: 50**

The industrial sectors have been categorized into Red, Orange, Green and White based on their Pollution Index range of 60 to 100, 41 to 59, 21 to 40, and <20, respectively (Table 16).

Table 16 Category-wise Pollution Index Values

Sl No	Industrial Category	Pollution Index (PI)	Average PI
1	Red	60-100	80
2	Orange	41-59	50
3	Green	21-40	30
4	White	<20	10

Based on the “Revised Classification of Industrial Sectors Under Red, Orange, Green and White Categories” published by the Central Pollution Control Board on February 29, 2016”, the PI for stone crushers is to be taken as 50.

N – Number of days of violation took place.

It is the period between the day of violation observed/ due date of direction’s compliance and the day of compliance verified by CPCB/SPCB/PCC.

As per the available records of previous inspections, JSPCB shall calculate the number of days of violation with respect to the non-compliance.

R – A factor in rupees for EC, to be taken as per CPCB’s guidelines

S- Factor of scale of operation, Scale of operation of stone crusher was taken as defined in CPCB’s Comprehensive Industry Document Series COINDS/78/2007-08 on Stone Crushers (Feb 2009) (Table 17)

Table 17. Value for Factor of Scale of Operation

Sl No	Scale of Operation	Production Capacity (TPH)	Factor (S)
1	Small Scale	3-25	0.5
2	Medium Scale	25-100	1.0
3	Large Scale	>100	1.5

LF - Location factor.

It could be based on the population of the city/ town and the location of the industrial unit. For the industrial unit located within the municipal boundary or up to 10 km distance from the municipal boundary of the city/ town, the following factors (LF) may be used as mentioned in Table 18.

Table 18. Location Factor Value

Sl No	Population (in Million)	Location Factor (LF)
1	1 - <5	1.25
2	5 - <10	1.5
3	>10	2.0

***LF will be 1.0 in case unit is located >10 km from municipal boundary or city/ town having population less than 1 million.*

LF is to be taken as 1.25 as the total population of Sahibganj district is 11,50,567 as per Census Data 2011.

The Environmental Compensation that would be imposed may be considered as interim. Detailed study on assessment of environmental compensation taking into account the cost of restoration for the damage caused and its apportionment among the violators may be done through the expert institute(s).

6.0 Recommendations

Based on the field visit (3rd-4th March 2022) and the carrying capacity study carried out by the Expert Committee, the following are recommended;

6.1 Measures to be taken for crushers/mines

- I. In the case of stone crushers, the crushing units (both primary & secondary) should be placed in a covered section and the crushing units having capacity more than 100 TPH, shall be provided with bag house as emission control system.
- II. The Crushers shall install scientifically designed adequate number of sprinklers with requisite hydraulic pressure and shall ensure that the sprinklers remained in operation during crushing period.
- III. JSPCB along with district administration shall ensure that crushers are not in operation without having requisite pollution control measures through strict vigilance. Priority may be given for the grids where negative supporting carrying capacity has been observed.
- IV. Conveyor belts should be covered /enclosed to avoid fugitive emission, without side gaps, in enclosure and belts.
- V. The crushed stones or finished products should be stored in a silo, or the finished goods should be kept lower than the height of wind-breaking walls. Strong structural base and framing should be provided for wind-breaking walls to withstand strong wind conditions. The height of the stockpile should always be kept lower than the height of the wind-breaking wall. The wall can be erected radially with a screen as center point. In addition, proper

sprinkling arrangement should be provided all around the stockpiles.

- VI. *The haul roads/roads within the mines/industry premises used for the transportation of the products from the stone crushers or mines shall be paved and sufficient number of sprinklers be in operation. The concerned crushers shall be responsible for installation and O&M.*
- VII. *Cleaning of crushing units and railway goods shed shall be performed with only mechanical means on regular basis.*
- VIII. *JSPCB shall direct the concerned agencies to maintain the national highways and other metalled roads to reduce fugitive emission.*
- IX. *The stone dusts from the stone crushing/ mines are dumped in the nearby area causing may be utilized for construction activities of the 4-lane highway and Ganga Bridge in the area and filling up the ponds/mine voids which were created during the stone mining or reclamation of the stone mines.*
- X. *A proper green belt is to be developed surrounding the crushers.*

6.2 Measures to be taken for management of railway siding

- XI. *Ten railway sidings and eight railway goods sheds are important source of pollution as they deal with 14,25,000 tonnes of materials (Stone Chips, Ballast and Bolder) per month (**Table 11**). Therefore, the railway sidings are recommended to be covered /enclosed with Galvanized Iron (G.I) / Mild Steel (M.S) sheets with proper pollution control system to avoid fugitive emissions. Proper housekeeping should also be maintained.*
- XII. *The loading/unloading points of the wagons shall be covered if possible or shall be equipped with scientifically designed sprinklers with adequate hydraulic pressure. The sprinklers should be in adequate number to maintain a water curtain along the loading/unloading points.*
- XIII. *The waste generated from the railway goods sheds/sidings shall be collected and segregated for proper disposal.*
- XIV. *Since the railway sidings are located near the clusters (**Table 12**), which may impact on human health, these shall be relocated to some safer distance.*
- XV. *The trucks, as well as the wagons, should be properly covered while transporting the stone chips.*

6.3 Surveillance and monitoring

- XVI. *Pan-tilt-zoom or PTZ cameras must be installed at all the stone crusher units at appropriate locations to detect fugitive emissions. Feed of the PTZ cameras shall be shared with the JSPCB.*
- XVII. *The operating capacity of the Stone crusher units may be verified with the monthly electricity bills of the respective unit.*

- XVIII. *The units using DG set as power source may only be allowed to operate when the unit is having valid authorization as per Hazardous & Other Wastes (Management and Transboundary Movement) Rules, 2016.*
- XIX. *Random drone surveillance on the bank of river Ganga may be done to prevent illegal dumping of debris generated during stone mining, crushing or allied activities.*
- XX. *Online and manual ambient air quality monitoring stations may be installed in the grids where negative carrying capacity is observed to monitor atleast for measurement of PM10, PM2.5 and NOx. JSPCB may be responsible for operation of these stations however, the expenses incurred for the same may be recovered from the respective stone crushers and mines.*
- XXI. *The environmental management status shall be updated as well as verification of the adequacy of the pollution control devices installed in all the stone mines/ crushing units operating in the region shall be done by JSPCB & DC Sahibganj.*

6.4 Environmental Compensation & Damage Assessment

- XXII. *JSPCB may impose Environmental Compensations (EC) for violators based on methodology as described in para 5.0 till the cost of restoration to the extent of damage including the deterrent element is assessed.*
- XXIII. *The cost of restoration of the actual damage and apportionment assessment may be carried out by technical institutes through JSPCB following the mechanism already developed by CPCB and circulated to all SPCBs/PCC following the direction of Hon’ble NGT in the matter of O.A. No. 739/2018. The copy of the mechanism for “Assessment of Damage to Air Quality”, “Damage Assessment of Health Issues” and “Agricultural Production Loss” w.r.t Stone Crushers" is given in **Appendix 11**.*
- XXIV. *A Comprehensive Environment Management plan may be prepared, for the areas where the stone mines and crushers are located, through the expert institutes like Indian Institute of Technology - India School of Mines (IIT-ISM), Dhanbad or any other reputed agency.”*

8. District Survey Report of Sahibganj District annexed to the report shows contamination of groundwater as follows:

“7.6 Ground Water Quality

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The results of ground water samples were analyzed in accordance with the standard (ISI – 1993) for drinking purpose. In general the

quality of ground water in the phreatic aquifer is suitable for drinking and irrigation purpose except few samples, which shows nitrate concentration more than permissible limit. The EC value ranges from 193 – 1687 micro Siemens/cm at 25°C. During the Ground Water Management Studies (AAP 2006 – 07), 60 acidified samples were collected from Gangetic alluvium of the district for the study of Arsenic in ground water. As per the analytical results of these samples, the Arsenic concentration is found more than 50 ppb in 20% of the samples and in 16.66% of the samples Arsenic value ranges between 10 – 50 ppb.

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7.12 RECOMMENDATION:-

1. Fluoride concentration in ground water (bore well) exceeds the permissible limits in/around villages Dharampur Morh, Amrapara, Bannawgram, Dhekiduba, Jatang Khakhsa and Rajdaha. In fluoride affected area, the ground water must be used after defluoridation through fluoride removal plants. Alternative source may be identified. The existing fluoride affected sources may be sealed.
2. Nitrate concentration in shallow aquifer (dug well) is found more than permissible limit in/ around villages Bannawgram (Pakuria Block), Kairachhatar (Maheshpur Block) and Litipara (Litipara Block). The bore well may be a better alternate option for the drinking water purposes for the above villages.
3. The exploration data indicates the poor percentage of successful bore wells in the district. Thus the geophysical surveys may be adopted for selection of suitable sites for ground water exploration.
4. In order to conserve run – off water during monsoon, the water conservation and recharge structure may be constructed in and around Barharwa, Berhait, Borio, Sahebganj and Sakrigali villages where the long term (2002 – 2011) water level trend shows declining trend during post monsoon.”

9. Separate report has been filed by the joint Committee constituted by this Tribunal through the CPCB and State PCB on 22.08.2022. The report mentions the data compiled during field monitoring as follows:

“2.1. Field Monitoring

- 2.1.1 Ambient Air Quality Monitoring was carried out by the team covering all the significant points for PM_{2.5}& PM₁₀.
- 2.1.2 The strategic locations for measurement of the PM_{2.5}& PM₁₀ are tabulated below (Table 1)

Table 1. Ambient Air Quality Monitoring Location carried out during the field visit

Sl No	Strategic Location	No of Sampling
1	Industry/ Clusters	2
2	Railway Sidings& Residential	2
3	Village	1
4	Township	2

2.1.3 The analysis of the particulate matter is as follows in (Table 2), the analysis results are enclosed as **Annexure III**.

Field monitoring was carried out at following 7 locations covering all the points as directed.

Table 2 Analysis Result of the ambient air quality carried out (for 8 hours based on prevailing situation and feasibility) during the field visit.

S. No.	Location	Lat & long	Monitoring results for parameters (stipulated norm in bracket)		Remarks
			PM10 (100 mg/Nm ³)	PM 2.5 (60 mg/Nm ³)	
1.	Jokmari, Mahadeoganj	N - 25.237361 E-87.574636	135.70	91.75	Not meeting
2.	Mahadeobaran, Mirzachowki	N-25°14'56.40288" E-87°29'36.7242"	217	55	PM10 Not meeting
3.	Sahibganj Railway Siding	N- 25°14'24.58392" E 87°38'29.485232"	137.75	95.80	Not meeting
4.	Mirzachowki Village	N-25°15'39.74436" E-87°29'37.77036"	120.90	70.25	Not meeting
5.	Talbanna, Sahibganj	N-25°14'42.21132" E-87°37'37.48512"	1133	50	PM10 Not meeting
6.	Ratanpur, Barharwa Town	N-24°51'24.76152" E-87°46'13.05912"	112.80	65.75	Not meeting
7.	Hathigarha, Sakrigali	N- 25°14'26.5308" E-87°42'16.97328"	148.75	99.80	Not meeting

Remarks: Ambient air qualities are not meeting the stipulated norms for all the locations for PM₁₀ and PM_{2.5} except Mahadeobaran, Mirzachowki & Talbanna where it is meeting for only PM_{2.5} as above.

2.2 Field inspection

2.2.1. When the site was visited many of the crushers were in operation. It was found that a huge quality of dust is generated in the area.

2.2.2. Majority of the crushers were running without properly operating the existing emission control system as reported in the Monitoring status report submitted by the District Mining Task Force (DMTF) from 11.12.2020 to 16.02.2021.

2.2.3. There is no display board/name plate specifying a particular stone crusher (running without proper ECS) so it could not be specified which specific crushers it were. When the team tried to get the basic information about the crushers (i.e. Name of the crushers, capacity of the crushers, Status of validity of

CTE/CTO, Name of the proprietor, since how long it has been in operation). Nobody was there to reply even the operator of the Crushers, JCB operator and other labour evolved in stone braking using hammers did not reply. In reply they stopped the operation of the running crushers and ran away.

2.2.4. Most of the crushers are running without proper display board in the area (i.e. Name of the crushers, capacity of the crushers, Status of validity of CTE/CTO, Name of the proprietor, since how long it has been in operation).

2.2.5. Many of the stone crusher operators do not show the legal document at the time of site inspection.

2.2.6. Jharkhand State pollution control board has issued valid CTO for only 192 no of stone crushers(list enclosed as **Annexure IV**),118 no of stone mines (List enclosed as **Annexure V**), 20 no. of Stone Crusher with mines (list enclosed as **Annexure VI**). However following are observed:

- a. A list provided from the District Mining Office enlists that there are 161 crushers which have been demolished since 2017 but many of the stoner crushers mentioned in the list are repeated twice or thrice(**Annexure-VII**).As reported such stone crushers were demolished by the District Administration by demolishing the conveyor system and the hopper but such units start their operation after some days.
- b. From close verification of the list of 161 stone crushers (**Annexure VII**) status of many of the stone crushers are as follow:-

Particulars	Status of running and non-running crushers as observed by the team				
	Status of running stone crushers				
	Runnin g with valid CTO	Runnin g without valid CTO	Running/existin g crusher without name	Still existing but not running	Existin g but sealed
	30, (116, 64), 87, 90, 148	0	0	26,31,39,40, (112,61)83, 103,105,110, 1 12, 147,149,151, 1 60	161 96
No. of crushers	05	0	0	14	2

- c. Present Status of Stone Crusher/ Stone Mine for which request have been made for cancellation of CTO by District Level Task Force, (Mining) Sahibganj as reported in the meeting with CPCB team dated 3-4th March 2022(List annexed as **Annexure VIII**)
- d. Present Status of stone crushers which have been relocated from their existing location by District Level Task Force, (Mining) Sahibganj as reported in the meeting with CPCB team dated 3-4th March 2022(List annexed as **Annexure IX**)

- e. 33 crushers running without CTE have been dismantled. 24 crusher not having valid CTO have been sealed by District Taskforce committee (DTC) during April 22-June 22. Renewal of consents are being issued with conditions of compliance of conditions mentioned in point 5.3.1 & 5.3.3 of the order dated 22.12.2021.

Overall finding:

- i. The certain dismantling of stone crushers by simply dismantling the conveyor belt has not all resulted into any effective action to prevent illegal stone crushing in the area. As the operators/owners of the units have stated operating the same unit by repairing the dismantled part of the crushers operational.
- ii. When the units are running as benami units it is very difficult to fix the responsibility of the illegal operation of crushers to someone unless the specific persons are identified.
- iii. Ambient air qualities are not meeting the stipulated norms at any of the monitored locations for PM10 and PM2.5 except Mahadeobaran, Mirzachowki & Talbanna where it is meeting for only PM_{2.5}.

3.0 Recommendations:

Based on the above field observations and finding it is proposed as follows:

- 3.1 All stone crushers / stone mines must be provided with display board of adequate size (preferably not less than 1 m × 1 m), mentioning the following details:
 - a) Name of the crusher / Mines with Capacity
 - b) Address and exact location of area with latitude and longitude of all corner points.
 - c) Name of the proprietor with contact no.
 - d) Status of regulatory compliance status with Validity(CTE, CTO, HWA)
 - e) Status of Electricity Power Supply.
- 3.2 All the crushers in the area running without valid CTE/ CTO to be treated as illegal and be demolished. Taking lesson from earlier demolition by dismantling the conveyer system& disconnection of power supply that such crusher start operating after sometime as reported, it is proposed that whenever any crusher is demolished for running without CTE, the whole foundation to be demolished & all the major machineries of the crushers (i.e. primary crusher, secondary crusher, screen, hopper, loader, DG set, etc) should be seized.
- 3.3 The crusher having valid CTE, but running without valid CTO should be sealed with ensuring disconnection of power supply/seize of DG set.

- 3.4 *All the units using DG sets as power source must have valid authorization as per rule (Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016).*
- 3.5 *Taking into account the scarcity of water in the area (where villagers use **Zaria Nallah** water for drinking, bathing and other domestic purpose) poor conditions effective emission control system, it is proposed that stone crushers with capacity greater than 100 TPH must be provided with bag filters as emission control system for primary crusher, secondary crusher & screen in a time bound manner (preferably in 6 month).*
- 3.6 *Proposed railway siding near the school should be developed keeping safe distance from the school to prevent the children from getting affected by silicosis/respiratory problem.*
- 3.7 *All stone crushers operating using DG set must get valid authorization from Jharkhand State Pollution Control Board as per Rule.*
- 3.8 *Overloading in loaded vehicle carrying stone/fines should be avoided to prevent spillage on the road. The crushing of these spillage under the wheels results in high load of PM 10/PM 2.5. Minimum free board of minimum 6 inch should be left keeping in mind the undulating road condition. The materials should be properly covered to prevent escape of fines under negative draft.*
- 3.9 *Haul roads should be properly maintained. Sprinklers should be installed to suppress the dust.*
- 3.10 *Plantation should be done in both side of the road. Green belt should also be improved in each cluster as well.”*

10. Thus, there is huge and unchecked pollution load by the reckless and unregulated mining and stone crusher activities. There is need for any serious and sincere authority to ascertain how such serious violation of the Air Act, 1981 and norms laid down under the EP Act, 1986 and Rules are continuing, contrary to the mandate of law and to the detriment of environment and public health. Effective appraisal of impact of mining activity appears to be missing before granting EC by SEIAA, as required in terms of *Deepak Kumar vs State*, (2012) 4 SCC 629. In the light of *Goa Foundation v. Union of India & Ors.* (2014) 6 SCC 590, there has to be proper appraisal by the State PCB before granting consents which also does not appear to have been done. It is not clear how blowing of naturally

occurring hills for mining purpose is being allowed. How mining is being allowed to the detriment of hills, which have to be protected. Further, carrying capacity of the area in terms of air quality has been ignored. 'Precautionary' principle of environmental law has been compromised. This calls for high level inquiry and fixing of accountability of concerned government officers responsible for such large scale damage to the environment and motives/reasons for which this has happened. ECs/consents for mining activities and stone crusher activities need to be reviewed to give effect to 'Sustainable Development' principle. Violators need to be brought to justice. There also appears to be no monitoring of compliance of the ECs/consent conditions. The stone crushers have been found to be operating without necessary safeguards, particularly the Air Pollution Control Devices (APDC), to the detriment of environment and public health. The recommendations in the report include safeguards in operation of stone crushing activities, stopping operation of stone crushers till pollution control measures are adopted, management of the railway sidings which are generating pollution, surveillance and monitoring measures and recovery of environmental compensation followed by restoration measures by preparing an appropriate comprehensive Environment Management Plan for the areas where stone mines and crushers are located.

11. Further, the second report by CPCB and State PCB also shows huge air pollution and generation of dust on account of running of the stone crushers without requisite safeguards and without any display boards. Many of the stone crushers do not have legal documents. It is surprising that the Committee has mentioned that responsibility for the illegal operations of crushers could not be fixed as the same were being run *benami*. Even the earlier demolished illegally operating units were found to

have started working which shows lack of continuous vigilance and failure of the monitoring mechanism. Further, CTO mechanism also seems to be faulty as how consent to operate can be granted unless, owner/occupier is known with its location for operation.

12. In absence of any reason not to accept the observations and recommendations in the above reports, we accept the same and direct remedial action in terms thereof. However, statutory bodies need not to wait further and must forthwith proceed against violating miners and crushers on polluter pays principle for past violations in terms of degradation of ambient air, changes in ground water quality and associated environmental aspects and closing violating activities.

13. We also regretfully note that in matter such magnitude, none has cared to appear for the State of Jharkhand or its authorities particularly when appearance in virtual mode is permitted in the Tribunal and it is not difficult for the officers of the State to log in and participate in the matter.

14. Accordingly, we direct the Chief Secretary, Jharkhand to constitute a Monitoring Committee under an Additional Chief Secretary with heads of concerned departments. The Committee may take stock of the situation and prepare an action plan to remedy the air pollution in the area as well as restoring the degraded areas by closing polluting activities (mining and crushing) and fixing accountability for past violations in terms of 'Polluter Pays' principle so that the compensation recovered is utilized for restoration of the environment. The Committee may be constituted within two weeks and hold its first meeting within one month and thereafter prepare its monitoring plan within one month. Further monitoring may be held atleast once in a fortnight. The Committee will be free to take assistance from any other Expert/Agency but not to delay the proceedings

on that ground. The Committee will also be free to undertake visit to the site and interact with the stakeholders. The restoration plan should endeavor to complete restoration measures including restoration of mined areas within three months, including measures to stop the polluting activities with the assistance of the State PCB, State Police and any other regulatory authorities. The Monitoring Committee will take into consideration the findings, observations and recommendations in the reports of the Committees referred to above. The Additional Chief Secretary chairing the Monitoring Committee may remain present in person on the next date. The Committee may also consider interim compensation to begin with in the light of the reports, pending finalisation of such compensation after following requisite procedure speedily. The Tribunal may consider liability of the State later. The Chief Secretary may also file criminal case against violators, after necessary scrutiny, including against erring officers. Since violation of environmental laws involve offences under PMLA Act, 2002¹, Director ED may also look into the matter. Action taken report may be filed within four months 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.

15. It is made clear that affected stone crushers/mining units will be at liberty to move this Tribunal, if they are aggrieved by this order or by orders passed in pursuance of order of this Tribunal.

I.A. No. 05/2019, M.A. No. 28 & 29 of 2018 seeking waiver of costs have no merit and are dismissed.

List for further consideration on 10.01.2023.

¹ Scheduled offence as defined under Section 2(y) read with paras 25 to 27 of the Schedule.

A copy of this order be forwarded to the Chief Secretary and Additional Chief Secretary, Jharkhand, State PCB and Director, ED by e-mail for compliance.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Prof. A. Senthil Vel, EM

August 23, 2022
Original Application No. 23/2017 (EZ)
(I.A. No. 05/2019, M.A. No. 28/2018
& M.A. No. 29/2018)
Original Application No. 776/2018
Original Application No. 373/2019
DV