

**REPORT OF THE JOINT COMMITTEE CONSTITUTED UNDER THE DIRECTION
OF HON'BLE NGT IN THE OA NO.236/2022 WITH RESPECT TO INSPECTION
CARRIED OUT AT SITE ON 27.05.2022.**

As per the Order of the Hon'ble NGT dated 30.03.2022, in the case no. OA 236/2022, a Joint Committee was constituted to ascertain the facts relating to violations of the environmental norms for transportation of coal from Kulda to Tamnar in Chattisgarh. In this regard, a field inspection was conducted on 27.05.2022 in and around the alleged site & transportation road to verify the facts of the matter of media report regarding allegation of violation of environment norms (particularly the EC conditions) for operations of Kulda Coal Mine, Odisha & Tamnar Thermal Plant, Chhattisgarh by the aforesaid Joint Committee comprising of the following members.

1. Dr. R. P. Mishra, Scientist D, Central Pollution Control Board, Bhopal
2. Mr. Taufic Aslam, Scientist 'B', Central Pollution Control Board, Kolkata
3. Dr. S. K. Verma, Regional Officer, Chattisgarh State Pollution Control Board, Raigarh
4. Er. H.K. Nayak, Regional Officer, SPCB, Odisha, Jharsuguda
5. Shri M. R. Prasad, Scientist-C, MoEF&CC, IRO, Bhubaneswar
6. Smt Victoria Ekka, Tahsildar, Hemgir, Sundargarh

There was no representation from the Office of District Magistrate, Raigarh, Chattisgarh.

The members of the Joint Committee interacted with the following Executives/Officials from MCL and various Departments of Government of Odisha like the Public Works Department (PWD), Jindal Power Limited (JPL). The following representatives were present during the meeting as well as inspection:

1. Shri Narayan Patel, Superintending Engineer, Sundergarh (R&B) Division.
2. Shri A.K. Bhoi, Deputy Environmental Scientist, SPCB, Odisha, Jharsuguda
3. Shri P.B. Reddy, General Manager, Badundhara Area, MCL
4. Shri Anay Namjoshi, General Manager, Mahalaxmi
5. Shri S.K. Malya, General Manager (Env), Mahanadi Coalfields Ltd.
6. Shri Raji Joshua, Staff Officer (E & F), MCL
7. Shri D. K. Bahargava, Vice President, Jindal Power Ltd, Raigarh

Background & Environmental Clearance Status:

M/s Jindal Power Limited located at village Tamnar, Taluk Gharhoda, Raigarh district, Chhattisgarh was accorded environment clearance for establishing 4 x 600 MW (2400 MW coal based thermal power plant by the Ministry of Environment, Forest and Climate Change, New Delhi vide Ministry's letter No.J-13012/117/2008-IA.II (T) dated 18th March, 2011 with certain stipulations on the environmental safeguard measures to be adopted by the project. Subsequently, the Ministry vide letter No. J-13012/117/2008-IA.II(T) dated 28.08.2020 issued letter to the project with respect to extension of the existing permission to use ash pond and coal transportation by road.

As per the letter issued the transportation of coal by road has been extended for 30 months up to 25.10.2019. The Point No.12 of the letter states that the company has an operational closed circuit pipe conveyor (CCPC) to transport coal from Gare Pelma coal block and the same is being used to transport coal to the plant. Further, company has fuel supply agreement (FSA) with South Eastern Coalfields Ltd. (SECL) and M/s Mahanadi Coalfields Limited (MCL) for supply of coal for two units of 4 x 600 MW only. Further, FSA is expected for coal supply for entire 4 x 600 MW from MCL mines and thus plans to construct a cross country pipe conveyor from Kulda mines of MCL to the power plant passing through Odisha and Chhattisgarh state. The construction of pipe conveyor in Chhattisgarh has commenced and Rs.13.643 crores had already been spent till date. There are some challenges in pipe conveyor as it is passing through another coal block, change in coal source, no dedicated coal mining link to power plant, etc. It is also stated that traffic impact assessment study was conducted for the proposed routes for transport of coal. In the proposal, Route-1 coal is to be transported from Kulda and Basundhara opencast mines of MCL covering a distance of 43.1 km and shipment of total coal quantity of 4187 tonnes per day with a movement of 400 trucks (to and fro) from the coal mines to the plant. Taking into consideration of the requirement of coal by the power plant, the Ministry granted ex-post-facto approval from 26.04.2019 till 20.05.2020 to transport coal by road for maximum quantity of 3 MTPA from MCL mines (Kulda and Basundhara) covering 43.1 km. Further, it is also stated in point No.19(1) the coal transportation from 21.05.2020 onwards is governed by Ministry's gazette notification vide SO 1561(E) dated 21st May, 2020.

As per the Gazette Notification at Point No.3 with respect to transportation of coal,

- (i) *Coal transportation may be undertaken by covered Railway wagon (railway wagons covered by tarpaulin or other means) and/or covered conveyor beyond the mine area. However, till such time enabling rail transport/conveyor infrastructure is not available, road transportation may be undertaken in trucks, covered by tarpaulin or other means,*
- (ii) *It shall be ensured by the thermal power plant that*
 - a. *Rail siding facility or conveyor facility is set up at or near the power plant, for*

transportation by rail or conveyor: and

- b. If transportation by rail or conveyor facility is not available, ensure that the coal is transported out from the Delivery Point of the respective mine in covered trucks (by tarpaulin or other means), or any mechanized closed trucks by road.*

Expansion of Kulda OCP from 16.8MTPA to 19.6MTPA of M/s Mahanadi Coalfields Limited in ML Area of 634.205 Ha located in Tehsil Hingir, District Sundergarh (Odisha) was granted by the Ministry of Environment, Forest and Climate Change vide letter No.J-11015/10/1995-IA.II(M) dated 22.03.2018.

As per the stipulation in the EC letter mentioned above with respect to (Condition No.4.1 (b) Air quality monitoring and preservation condition (Condition No.iv), the transportation of coal shall be carried out as per the provision and envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.

Subsequently, the Ministry has accorded environmental clearance for expansion of Kulda mines vide No.J-11015/10/1995-IA.II (M) dated 14.02.2022 wherein in the Condition No.4 (ix), it is stipulated that "PP should not transport coal through road passing through any village and further ensure that its consumers of coal are also not using village road and passing through any sensitive location such as schools, hospitals, etc. PP shall take legal undertaking from the consumers accordingly".

From the site visit by the Joint Committee constituted under the direction of Hon'ble High Court, Orissa in connection with a court case No. WP (C) No.6587/2021 it is noted that trucks carrying coal from Kulda mines of M/s MCL are plying through 10 village roads en route from Bamkibahal to Taparia village. During discussions held with the MCL authorities on this aspect, it is contended and reiterated by the authorities that once the commodities have been sold to an agency, the responsibility of MCL ends with respect to the transport of material to its destination by the transporter.

Observations of the committee:

During the site visit and discussions held with the project authorities the following points are noted:

1. With reference to the road, a meeting was called and chaired by the Collector, Sundergarh for maintenance of road as well as reduction of pollution along the settlement area in March, 2021. The collector, Sundergarh, had directed the transporters to ensure the following:
About 4 km of black top road has been constructed. The balance road is repaired with WBM/slag covering with pot holes. The high rising blue sheets have been installed along the boundary wall of schools in five villages to restrict noise and dust pollution. Strict adherence of proper covering of coal transport vehicle by tarpaulin. Hundred meters of distance is being maintained between the vehicles. Volunteers are deployed by the transporter on the road for proper vehicle movement and speed limit. 17 number of water tankers have been deployed for sprinkling of water on the road for suppression of dust. The coal transportation by vehicles is restricted between 6 am and 1 pm (during school hours).
2. The alleged road is of length about 25 km and is Major District Road (PWD road) connecting from Bankibahal chowk, Hemgir Block, Odisha to Taparia, Hamirpur, Chhattisgarh. The road in question passes through 14 nos. of revenue villages, having schools and dispensaries. Major District Road generally connects from the point of a District to State Highway and National Highway. Houses of Villagers, Schools and other social infrastructures which are located adjacent to the Road.
3. At present, more than 1400 nos. of heavy coal transporting vehicles (both loaded & unloaded trucks) daily passes through this road. Heavy traffic of coal transportation vehicles in the major district road has affected the use of the road by villagers for their basic need purposes. The construction of conveyor belt for transportation of coal from Kulda OCP to Tamnar Thermal Plant (Jindal Power Limited (JPL) has not been made.
4. It has come to the notice of the committee that the road in question was in damaged condition since more than five years. Due to the damaged road condition, Villagers were facing fugitive dust problems & noise issues during plying of vehicles.

During the deliberations it was also noted that M/s JPL was the company purchasing highest quantity of coal from the Kulda mine. Apart from the JPL, the other companies that procure coal along with the quantity during the last two years are given in the list below:

Road dispatch report for the FY 2021-22 (Only Raigarh Route consumers)

Consumer's Name	KULDA OCP		GARJANBAHAL OCP		Total		Percentage
	Dispatch Qty	Trip	Dispatch Qty	Trip	Dispatch Qty	Trip	
Bharat Aluminium Company Ltd	83,000.00	2,721	45,943.00	1,459	1,28,943.00	4,180	1.58
DB Power Ltd	2,99,975.00	9,723	2,92,565.08	9,288	5,92,540.08	19,011	7.25
Ind Synergy Ltd	1,76,321.17	5,642	28,935.95	919	2,05,257.12	6,561	2.51
Jindal Power Ltd	22,93,512.63	74,572	20,20,534.39	64,144	43,14,047.02	1,38,716	52.82
Jindal Steel and Power Ltd	7,47,177.55	24,397	3,40,926.51	10,823	10,88,104.06	35,220	13.32
JSW Ispat Special Products Limited	1,35,000.00	4,347	2,09,162.04	6,640	3,44,162.04	10,987	4.21
R K M Powergen Private Limited	1,36,702.12	4,387	68,759.76	2,183	2,05,461.88	6,570	2.52
Raigarh Energy Generation Ltd	6,99,843.32	22,724	3,09,539.14	9,827	10,09,382.46	32,551	12.36
SKS Power Generation	95,635.87	3,118	43,910.00	1,394	1,39,545.87	4,512	1.71
Vasundhara Power and Infrastructure	1,19,000.00	3,883	21,500.00	683	1,40,500.00	4,566	1.72
Total	47,86,167.66	1,55,514	33,81,775.87	1,07,358	81,67,943.53	2,62,872	

Road dispatch report for the FY 2020-21 (Only Raigarh Route consumers)

Consumer's Name	KOCP		GOCP		Total		
	Dispatch Qty	Trip	Dispatch Qty	Trip	Dispatch Qty	Trip	
Bharat Aluminium Company Ltd	13594	432	4508.35	143	18,102.35	575	0.24
DB Power Ltd	180000	5,714	506944.71	16,093	6,86,944.71	21,807	9.12
IND Synergy Ltd	207306.17	6,581	30143.83	956	2,37,450.00	7,537	3.15
Jindal Power Ltd	2358901.83	74,886	1628317.97	51,692	39,87,219.80	1,26,578	52.95
Jindal steel and power ltd	690478.92	21,920	426598.95	13,542	11,17,077.87	35,462	14.84
Jsw Ispat Special Products Limited	17020.77	540	0.00	0	17,020.77	540	0.23

R K M Powergen Private Limited	502069.43	15,939	48000	1,524	5,50,069.43	17,463	7.31
Raigarh Energy Generation Ltd	222772.61	7,072	256747.46	8,151	4,79,520.07	15,223	6.37
SKS Power Generation	125194.58	3,974	132000	4,190	2,57,194.58	8,164	3.42
Vasundhara Power and Infrastructure	145279.77	4,612	33813.01	1,073	1,79,092.78	5,685	2.38
Total	44,62,618.08	1,41,670	30,67,074.28	97,364	75,29,692.36	2,39,034	

It is observed by the Committee that transportation of coal to the state of Chhattisgarh is being carried out through road connecting Kulda to Hamirpur passing through a number of villages. During the site visit and interaction the following points are noted :

1. Bankibahal Taparia road was under construction and the work of improvement of the said road for a stretch of 22.22 Km has been awarded to M/s. RKD Construction by PWD, Sundargarh for a value of Rs.118.34 Crores. At present, only 20% of the work had been completed by the contractor. The work is scheduled to be completed by January, 2024.
2. It is a fact that plying of trucks carrying coal from the Kulda mine to industries in Chhattisgarh, including Tamnar Thermal Power Plant of M/s Jindal Power Limited is causing high fugitive dust emission resulting in hardship to the people of the villages located all along the road.
3. There is only one road worthy of transporting the coal through the shortest distance to the state of Chhattisgarh. As on date, on an average, there about 700 trips by trucks being carried out per day for carrying coal to Chhattisgarh, apart from other trucks carrying iron ore and other minerals.
4. A total of 36.48 million tonnes of coal is transported annually from the Basundhara area which includes Kulda OCP, Garjanbahal OCP and Basundhara West Open Cast Mine. Out of this quantity, 19.62 million tonnes of coal is transported by rail through Sardega and Kanika Railway sidings and 8.86 million tonnes is transported through road towards Raigarh in Chattisgarh.
5. Due to movement of trucks loaded with coal, it is submitted by the villagers that their health is affected. It is also submitted that the movement of the people from the villages is seriously affected including shipment of patients from villages to health centers. This is recorded in report submitted to the Hon'ble High Court of Odisha in the WP (C) No. 6587 of 2021 (Copy attached as Annexure-I)
6. During the period of Inspection, there was no movement of trucks observed on the road. It was informed that as per the Official Order of the District Collector, Sundergarh, up to 1:00 P.M, there was restriction on the movement of trucks in

order to facilitate the movement of the village communities. The road condition was very poor due to development of many rut & pot holes. The condition of the road has huge potential of increasing whole body vibrations of the coal transportation vehicles and spillage of coal dust resulting heavy fugitive road dust during plying of vehicles.

7. **Accumulation of dust on the road as well as side of the road was observed which has also heavy potential of fugitive road dust during plying of vehicles. The road condition does not allow effective mechanical cleaning and hence manual effective cleaning had not been carried out regularly.**
8. It is noted that there is dust emission from the road due to plying of vehicles. It is observed that in compliance to earlier order of the Hon'ble High Court and directions issued by the District Administration, water sprinkling is being carried out on this road in areas near to the villages by the consumers of coal, primarily JPL in addition to MCL which is carrying out sprinkling of water in the buffer zone surrounding 10 kms. **However, due to summer season, it is viewed that the frequency of water sprinkling is to be increased as per the requirement.**
9. The MCL authorities should ensure that all the vehicles coming out of their control area are properly covered with Tarpaulin.

The following points are noted:

1. The production from the Kulda OCP is being transported from the mine site to the point of sale by M/s MCL authorities, which they claim as their sole responsibility. In the passage, it has been submitted by the project authorities M/s MCL, that there are no villages en-route to the point of sale where the responsibility of M/s MCL ends.
2. It is also submitted that presently there are two railway sidings in operations viz. Sardega railway siding and Kanika Railway siding. The transportation from the mine site to these railway sidings is presently being carried out through four lane road constructed and being operated by M/s MCL and it is not passing through any of the villages.

The Ministry has subsequently granted EC to the proposal for expansion of Kulda Mine from 16.8 MTPA to 19.6 MTPA vide letter No. J-11015/10/1995-IA-II(M) dated 14.02.2022 in which Condition No. ix states that ***“Project Proponent (PP) should not transportation of coal through road passing through any village and further ensure that its consumers of coal are also not using village road and passing through any***

sensitive location such as schools, hospitals, etc. PP shall take legal undertaking from its consumers accordingly”.

It is submitted to the committee by the MCL authorities that Notices have been issued by them to the consumers or buyers for submission of legal undertaking as per the stipulated condition. However, M/s. MCL has not ensured for the compliance of the aforesaid EC condition and if not coming under their role & responsibilities, M/s. MCL has not yet submitted its representation for amendment of such EC condition.

Recommendations:

1. In view of the above, it is clear that the allegations made in the matter of media report regarding coal transportation by road particularly as mentioned in the EC conditions from Kulda Coal Mine, Odisha to Tamnar Thermal Plant, Chhattisgarh were substantiated.
2. The works for repair and renovation of the existing road is already in progress. Vehicles, both light and heavy are plying on the road from Kulda area to Chhattisgarh. Due to this movement of large nos. of vehicles, especially on the road under construction there **is a lot of fugitive road dust emission during plying of vehicles**. Following measures may be taken immediately by the transporters/consumers/ project proponent(Coal Producer).
 - a. Accumulation of dust by the side of the road as well as along the road needs to be effectively cleaned regularly.
 - b. Speed along with PUC along with instant testing of all coal transporting vehicles may be checked on random & surprising basis by Regional Transport Officer time to time.
 - c. Frequent water sprinkling all along the roads needs to be carried out and shall be ensured for its adequate dust suppression.
 - d. Construction of road passing through or near the villages are to be made at the earliest, preferably during the 1st phase of construction on priority.
3. Expedite the road construct work in time bound manner. Heavy Traffic in Road delays the road construction & affects the quality of work during construction phase. Till such time, coal transportation through other road routes (via NH/SH) or rail mode may be preferred.
4. In future, as new coal mining projects and expansion of Kulda OCP are coming, there are possibilities of increasing load of Coal transportation by Road through this route. Hence, the coal transportation road through this site shall pass all the village residential area. Pipe conveyor or other closed belt conveyor system of conveying along with silo system to the major bulk

consumers (short distance) may be preferred for abatement of road dust pollution.

5. Rail route: The transportation of coal to Chhattisgarh is primarily through road at present. There is no railway line/connecting directly to Tanmar Thermal Power Project in Chhattisgarh. The transportation through rail may be done so as to have an environmentally safe, movement of coal, without affecting the village population residing near or all along the road.
6. Transportation of coal to Tamnar Thermal Power Plant through conveyor Belt had been stipulated to the project. Till date this has not been complied with. The project authorities, M/s JPL has sought extension of time for its compliance and necessary permission for transport through road. The project proponent M/s JPL should prepare an Action Plan along with the implementation schedule for construction and completion of this conveyor belt transport system of coal.
7. For compliance of environment quality and safety of the roads, especially with respect to water sprinkling all along the roads, a Monitoring Committee headed by a Senior Executive of MCL and comprising of executives from all the consumers/transporters may be constituted and the status of compliance as well as the progress made in this regard may be reported to the Collector of Sundergarh District and General Manager Environment, MCL on weekly basis. This would improve the existing status of environment quality.
8. Since the number of vehicles passing through this single road is very high, it is viewed that the traffic of plying vehicles may be reduced by
 - i. Finding alternate route, without passing through or near these villages so that the impact of transportation of vehicles is reduced on the community residing in the villages.
 - ii. Rail route: The transportation of coal to Chhattisgarh is primarily through road at present. There is no railway line/connecting directly to Tanmar Thermal Power Project in Chhattisgarh. The transportation through rail may be done so as to have an environmentally safe, movement of coal, without affecting the village population residing near or all along the road.
9. For compliance of environment quality and safety of the roads, especially with respect to water sprinkling all along the roads, a Monitoring Committee headed by a Senior Executive of MCL and comprising of executives from all the consumers/transporters may be constituted and the status of compliance as well as the progress made in this regard may be reported to the Collector

of Sundergarh District and General Manager Environment, MCL on weekly basis. This would improve the existing status of environment quality

10. The committee was of the opinion that a long term solution to the existing problem needs to be addressed to this problem. It was viewed that a Comprehensive Study may be undertaken through an Institution of National Repute like NEERI, etc. The study may also explore the alternate ways of transportation. The Hon'ble NGT may give necessary direction for bearing the cost of the above mentioned study.

Conclusion:

All the members of the committee agreed to the fact that the existing coal transport from Kulda to Tamnar through the road passing through the villages is not in motorable condition and has an impact on the environment, health and safety of local villagers. This road needs to be repaired and renovated at the earliest. Presently construction works are in progress and the situation has improved in comparison to past keeping in view the coal requirement by various industries in the country at present and the expansion proposals envisaged by the MCL authorities as well as State/District authorities. It is of the view that a long term transport management plan may be prepared after in depth study in the total area keeping in view the requirement of the transportation of the coal and other commodities in the next 20 years.



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