

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IMPACT ASSESSMENT DIVISION)
NON-COAL MINING SECTOR

SUMMARY RECORD OF 27th MEETING OF THE RECONSTITUTED COMMITTEE OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF NON-COAL MINING PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.

The Twenty seventh meeting of the Reconstituted Expert Appraisal Committee for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during **January 18-19, 2018**. The list of participants is annexed. After welcoming the Committee Members, discussion on each of the Agenda Items was taken up ad-seriatim.

1.1 Deliberation & Circulation on the Minutes of the 26th EAC & Special EAC Meeting held on 08.01.2018:

The Minutes of the 25th Meeting of EAC held during December 21-22, 2017 and the summary of deliberations made during Special EAC Meeting held on 08.01.2018 for considering the cases of River sand/ Bajri mining in the state of Rajasthan were discussed and circulated to the members of the Committee. The members made brief deliberations on the proposals placed in the last meeting and approved the same.

2.1 J-11015/214/2016-IA.II(M): Sand Mine of M/s M.P. Traders located at Nagli Block, Yamuna Nagar B-15, Tehsil Radaur, District Yamuna Nagar, State Haryana for production capacity of 28 Lakh TPA in 77.25 ha. of Mine lease area.

The proposal of M/s M.P. Traders is for the production of 35 Lakh TPA of sand in mine lease area of 77.25 Ha. However, finally, the proposal has been considered for the production of 28 Lakh TPA only. The lease is located

at Nagli Block, Yamunanagar B-15, Tehsil Radaur, Yamunanagar, Haryana. The LOI is over an area of 77.25 ha. Mining lease has been granted in favor of M/s. M.P. Traders by the Director, Department of Mines & Geology, Haryana vide memo no.- DMG/ HY/ Cont/ Nagli Block/ YNR B 15/ 2016/ 5414 dated 20.10.2016 for a period of 10 years. The lease area lies on river bed of Yamuna River in District- Yamuna Nagar (Haryana). Total M.L. area is 77.25 ha which is non-forest land. The proposed mining project land has been allotted as a single unit for mining of Sand (Minor Mineral) throughout the riverbed of District Yamuna Nagar (Haryana). The lease is located in the following latitude and longitude: Pillar No. A-N 29° 58' 29" E 77° 13' 47" Pillar No. B -N 29° 58' 30" E 77° 13' 50.5" Pillar No. C- N 29° 58' 16" E 77° 13' 48.5" Pillar No. D- N 29° 58' 02" E 77° 13' 46" Pillar No. E- N 29° 58' 02" E 77° 13' 45" Pillar No. F- N 29° 57' 38" E 77° 13' 45" Pillar No. G- N 29° 57' 24" E 77° 13' 37" Pillar No. H- N 29° 57' 38" E 77° 13' 13" Pillar No. I- N 29° 57' 40" E 77° 13' 20.5" Pillar No. J- N 29° 57' 46" E 77° 13' 27" Pillar No. K- N 29° 58' 06" E 77° 13' 28" Pillar No. L- N 29° 58' 10" E 77° 13' 32" Pillar No. M- N 29° 58' 10" E 77° 13' 39" Pillar No. N- N 29° 58' 15" E 77° 13' 43" Pillar No. O- N 29° 58' 15" E 77° 13' 42" Pillar No. P- N 29° 58' 25" E 77° 13' 42".

2. The project proponent submitted that the mining activity will be carried out by open cast semi-mechanized method. Light weight excavators will be used for digging and loading of mineral in tippers. No OB/ waste material will be produced. No drilling/ blasting is required as the material is loose in nature. Proper benching of 3.0 m height will be maintained. Roads will be properly made and sprayed by water for suppression of dust. Roads in the lease area for the movement of loaded trippers/ trucks will not have slopes more than 1 in 20. Extraction activities will start in the blocks from the upstream side to the downstream side. This will not obstruct the movement of water, if any, during monsoon period in the river course. Approach roads from this block are as already described earlier will be merging with permanent tar roads on both sides of the river for transportation of the mineral to final destinations.

3. The Project Proponent submitted that the total water requirement will be 45 KLD which will be sourced from the nearby villages through tankers. No liquid effluent will be generated at the mine site due to the mineral excavation. Only domestic waste water will be generated from mine office etc. which will be disposed of in septic tank via soak pits. The mining lease is a part of the river bed of Yamuna River in Tehsil- Radaur, District Yamuna Nagar (Haryana). The proposed activity is to take place in dry part of the river bed where the excavated sand will be replenished during rainy season every year and hence there will be no change in land use. There will be no OB or waste generation as the sand is exposed in the river bed. But, at the later stage, if any soil or waste will be obtained during mining, then the same will be stored with proper protection and will be used for reclamation (plantation).

4. The PP submitted that the green belt shall be developed as per approved eco-friendly mine lease plan and as per CPCB guidelines. The project proponent shall also develop greenbelt in the premises of the schools, hospitals and also carries out the avenue plantation in the vacant areas along roads. The greenbelt shall be developed by planting saplings per year. Indigenous species with the consultation of the State Forest Department shall be planted and maintained.

5. The PP informed that there is no human settlement within the mine contract area. No human settlement will be disturbed due to the mining activity. So, no Rehabilitation and resettlement are proposed. The total cost of the Project is approximately ₹ 9 Crore/-.

6. The proposal was placed for consideration in the EAC meeting held on 23-25 November 2016. The committee did not consider the proposal and deferred the proposal for granting ToR as the project proponent had not submitted the KML file. The committee also noted that the proposal needs to be revised as the downstream replenishment will be less because of upstream extraction and it needs to be taken into consideration.

7. The project proposal was once again considered during the EAC meeting held during 15-16 December 2016. Based on the information furnished and discussion held, the Committee noted that there were other contiguous mining projects of similar mineral upstream and downstream. The Committee was of the opinion that 20% of the capacity be reduced as replenishment will be affected because of three contiguous projects. After deliberation the committee recommended the reduced capacity of 28 Lakh TPA and prescribed the Standard ToR for undertaking detailed EIA study.

8. The proponent submitted that Mining Plan and Progressive Mine Closure Plan was approved by Department of Mines and Geology, Haryana vide memo No. DMG/HY/MP/MP/ Nagil Block/YNR-B-15/2016/927 dated 06.03.2017.

9. The proponent submitted the Final EIA report online on 10.07.2017. But as the proponent did not submit the District Survey Report (DSR) in the format as given the notification dated 15-01-2016, Annexure of EIA Report was not attached and the copy of letter from DFO was illegible. PP was asked to submit the same.

10. The project proponent re-submitted the Final EIA Report along with annexures, copy of DSR in the format as given in the notification dated 15-01-2016, a clear copy of the DFO letter mentioning no forest land is involved and distance in Kilometre from the nearest PA on 17.08.2017.

11. The proponent mentioned in the Final EIA Report that the baseline data is collected for Post Monsoon Season i.e. 1st December 2016 to 28th February 2017 and the Air, Noise, Soil and water quality are within permissible limits. There is no wildlife sanctuary/biosphere reserve/national parks present within 10 Km radius of the study area. One species of schedule-I and two species of Schedule-II were observed during study. Subsequently, a budget of ₹ 10.00 Lakhs has been earmarked for conservation of wildlife.

12. The proponent mentioned that the impact on the present noise levels due to mining operations will be restricted to the work zone areas only. The impact on the ambient noise levels will not be felt in the settlement areas due to masking effect with the existing noise levels. There is no drilling and blasting envisaged in the sand mining so there is no impact of vibration due to this project. Hence, the noise levels and vibration impact due to the proposed mining operations on the community will be minimal.

13. The Proponent mentioned that the public hearing was conducted on 23.05.2017 at 12.00 am at Mine Site in Village Nagli (Yamuna Nagar) under the chairmanship of Deputy Commissioner, Yamuna Nagar. The major issues raised during the Public Hearing are employment generation, arrangement for health check-up of mine workers, benefit of the project, no. of trees to be planted, proper compensation for the land, providing mineral on concessional rate to villagers, what kind of pollution to be generated due to mining activities, provision of social development of the village and providing sand to the villagers free of cost etc.

14. The proponent during the public hearing committed that i) 115 skilled and semiskilled people will get direct employment from this project. Total 105 dumpers will be used in this project and each dumper requires 4-5 people i.e. driver, cleaner, helper. About 500-700 people will be employed for this purpose. Every year 7,800 trees will be planted that will need so many gardeners to take care of the plants. 22 KLD water will be used for dust suppression for which many persons will be employed. Bill clerks will also be needed for this project and to fulfil this purpose graduated students will be employed from the local villages. These are the direct employment opportunities. Apart from this so many indirect employment will also be generated i.e. many hotels, workshop repair, tea stalls, general store will be established and so many employment opportunities will be generated. Lease holder assured that first priority for employment will be given to local villagers only, ii) A budget of ₹ 10 Lakhs per year is proposed for occupational health safety of mine workers. A qualified MBBS doctor will be appointed, first aid, medical Centre will be established at the project site.

Regular health check-up will be conducted by doctors and villagers also take advantage of that. Dust mask will be provided to the workers to protect themselves from dust. Awareness training programme will also be organized periodically to the workers to minimize the impact of air pollution. Proper care will be taken of the workers so that it won't affect the health of workers. Medical camps will be organized quarterly/ six monthly in which our workers and villagers will also be benefitted, iii) A budget of ₹ 30 Lakhs/year has been proposed for EMP.7,800 trees will be planted per year that means approx. 39000- 40000 trees will be planted in five years. Only local species of trees will be planted after consultation with DFO. The Plantation will also be done along with the road of transportation, premises of Gram Panchayat Bhawan, Hospitals, schools etc.

15. The project proposal was considered during the EAC meeting held during 18-19th September, 2017 for consideration of the EC. The committee noted that production capacity of the project is 28 LTPA but the emission rate is calculated on 21.0 LTPA. The water requirement for dust suppression is 22 KLD but in the mitigation measures it is mentioned as 45 KLD. The Committee directed the PP to re-calculate the emission rate and water requirement as per proposed production rate. PP mentioned that the water will be drawn from bore-wells. The committee noted that this will affect the ground water level of the area and require permission from the central ground water board. The committee noted that the traffic study is conducted for State and District Roads only, but as per proponent, five haul roads will be constructed to connect the mining area with State and District Roads. The impact on the environment due to the transportation on these haul roads needs to be assessed and a detailed mitigation plan along with budget needs to be submitted. The financial provision for ESR needs to be clearly mentioned in the EIA Report. The committee also noted that as per the District Survey Report there are around 20 other sand mining leases in the upstream of this project. The committee felt that how the replenishment of the downstream area would be possible if this much amount is excavated in the upstream, Committee asked the Ministry to seek the comments of State Mines and Geology, Department on the same. The committee also noted

that PP has mentioned in the EIA report that the soil removed from outside riverbed will be simultaneously utilized for reclamation purpose, but as per Mine Plan the PP is only allowed to carry out mining in the river bed.

16. After due deliberation the committee deferred the proposal and was of the opinion that the proposal can be considered after the submission of following:

- a) Comments of the Department of Mines and Geology, Haryana on the replenishment of the downstream area.
- b) Revised EIA Report after incorporating the correct emission rate, GLC of PM₁₀& PM_{2.5}, water requirement for the project, monitoring plan for free silica, assessment of impact on the environment due to transportation on the five haul roads along with mitigation plan and budget for the same, summary of EIA report needs to be revised as the mining is not permitted outside the riverbed.
- c) The worst case scenario needs to be submitted (i.e. level of pollutants without using any mitigation measures).
- d) Legal Status of the bore-wells from which water will be withdrawn and permission of Central Ground Water Control Board for withdrawal of ground water.

17. The proponent submitted the information online and proposal was considered in EAC Meeting held on 27-28th December, 2017. The Department of Mining and Geology, Haryana in its reply inter alia mentioned that:

- a) The river bed area of this part falls in the foothills of Shivalik Hills and enormous quantity of sediments/minerals in the form of Boulder, Gravel, sand and /or sand deposits are brought every year during the rainy season.

- b) There are 19 proposed mining sites in River Yamuna and out of 19, two sites were not granted for mining as the same needs to be studied for turtle nesting zone and out of the remaining 17 sites 16 sites have already been granted mineral concession. Out of 16 the 11 projects have already obtained EC and out of which 10 already came under operation. Out of these 10 projects 09 projects have already commenced mining on different dates. The total production capacity of these mines is 14.89 Million TPA. But the actual production achieved is 2.15 Million TPA. If these mines were operated on its full capacity, then would have achieved 4.3 Million Tonne. Thus the total actual production capacity is much lower than the total approved capacity.
- c) It is not denied that with the grant of additional approvals the total approved capacity of the mines of the district will increase and it may also increase the total excavation from the District. But it may be stated here that the same shall not be more than the total demand of the mineral. With the approval of the new mines for mining the supply gets re-distributed in all mines operating in the area and not increase the demand rather only improves the supply.
- d) The DMG also mentioned in its report that mining in the upstream side of the project will not affect the replenishment of the project in question and suggested that additional condition may be incorporated in EC for maintaining records of river bed level which will also act as the replenishment study of the area.

18. In addition to the above, the proponent also submitted the GLC for PM_{10} and $PM_{2.5}$ which shows that in a worst case scenario the maximum value of PM_{10} will be $114.060 \mu\text{g}/\text{m}^3$ and $PM_{2.5}$ will be $51.39 \mu\text{g}/\text{m}^3$. The value of PM_{10} & $PM_{2.5}$ after adopting suitable mitigation measures will be $94.86 \mu\text{g}/\text{m}^3$ and $50.88 \mu\text{g}/\text{m}^3$ respectively.

19. The proponent also submitted that the requirement of water for the project will be 45 KLD and they have applied for permission of Central

Ground Water Control Board.

20. Based on the documents submitted, presentation made and discussion held the committee noted that as per DMG there is very less demand of the Mineral and if the already existing mines would operate at its full capacity then also the amount of mineral that can be extracted is only 28.8 % of the total allocated capacity. DMG also confirmed that with the approval of the new mines for mining the supply gets re-distributed in all mines operating in the area and not increase the demand rather only improves the supply. The Committee also noted that a) GLC of various pollutants in worst case scenario is not correct as there is not much difference in the same at different production level, b) requirement of the water is also not assessed properly, c) the map submitted by the proponent is for only 19 mining lease, but as per DSR there are 34 mining leases , d) the DSR is not the final DSR rather it is the draft copy, e) The time bound action plan with budgetary allocation for implementation of CSR, ESR and EMP activities is not provided by the proponent. The Committee therefore deferred the proposal and asked the proponent to submit the following:

- a) GLC of various pollutants in a worst case scenario needs to be submitted.
- b) GLC after implementing mitigation measures needs to be submitted for various pollutants.
- c) Final DSR needs to be submitted.
- d) A map clearly showing the position of other mining lease in upstream and downstream of the projects needs to be submitted
- e) Water requirement for the project needs to be submitted.
- f) The activity wise, time bound action plan with budgetary provision for implementation of activities proposed in CSR and ESR needs to be submitted.
- g) The number and designation of the persons to be engaged for implementation of Environmental Management Plant needs to be submitted.

21. The proponent submitted the above information and the proposal was

considered in the EAC Meeting held in 18-19 January, 2018. The committee noted that demand of mineral is less as per DMG, Haryana and quantity of the water requirement for the project is also on the higher side. The proponent submitted that considering the demand of the mineral and in order control the emission level and reduce the water requirement the quantity of the mineral to be extracted if further reduced from 28.0 Lakh TPA to 22.4 Lakh TPA . The GLC in worst case scenario for handling 22.4 Lakh TPA will be between 90-121.3 $\mu\text{g}/\text{m}^3$ for PM_{10} and 46.4-51.39 $\mu\text{g}/\text{m}^3$ for $\text{PM}_{2.5}$. The GLC after adopting mitigation measures will be between 86.9-97.6 $\mu\text{g}/\text{m}^3$ for PM_{10} and 46.0-49.8 $\mu\text{g}/\text{m}^3$ for $\text{PM}_{2.5}$, which is well within the prescribed limits. The proponent submitted that in order to control the traffic density the transportation of the mineral will be done through five dedicated haul roads. The proponent submitted that sufficient number of water tankers will be engaged for spraying of water on the haul roads. Initially the water will be sprayed at maximum intensity of 2L/m² (100% intensity) and quantity of the water will be further reduced to 20% in the subsequent cycles. Thus, the total water requirement for the project will be around 187 KLD (170.8 KLD for dust suppression, 6.5 KLD for domestic use and 10.0 KLD for plantation). The proponent submitted that the permission from Central Ground Water Control Authority (CGWA) will be obtained for withdrawal of the ground water for the project. The proponent also submitted a letter issued by DMG, Haryana confirming that DSR submitted by the Project Proponent to the Committee is the final DSR. The proponent submitted that budgetary provision for Enterprise Social commitment (ESC) will be ₹ 35 Lakh/Annum and the same will be utilized for village level awareness camps (Health Nutrition & Cleanliness, burning of crop residue and related environmental impacts), distribution of sanitary napkins, providing sanitation and drinking water facility, health check-up camps at the mine site and in the nearby villages, construction of toilets (18 Nos) in each of the three nearby villages. The proponent submitted that capital cost for implementing Environment Management Plan will be ₹66.5 Lakh and recurring cost will be 36.6 Lakh/annum. ₹ 99.10 Lakh

(Capital Cost +recurring cost) will be spent on implementation of the Environmental Management Plan in first year and thereafter, ₹ 36.6 Lakh will be spent annually on Environmental Management Plan. The proponent submitted that in total 5 persons will be engaged for implementation of the Environmental Management Plan and budget for the same will be ₹ 12 Lakh/annum. The proponent submitted that before starting the mining operation, initial level (baseline data) of the mining site will be taken, for this purpose section will be cut at 30 meter interval along the length of the river and at each section line levels will be taken at an interval of 5-20 meters depending on the width of the river. The proponent submitted that the baseline data so collected will be submitted to the Ministry within one month of the grant of EC. The proponent submitted and for annual replenishment study reputed institute/Government agency will be engaged. Based on the document submitted, presentation made and discussion held the committee **recommended** the proposal for grant of EC for the reduced capacity of 22.4 Lakh TPA with following additional specific conditions.

- (i) Environmental clearance is granted subject to final outcome of **Hon'ble Supreme Court of India, Hon'ble High Court of Haryana, Hon'ble NGT and any other Court of Law**, if any, as may be applicable to this project.
- (ii) This Environmental Clearance is subject to obtaining permission from CGWA for withdrawal of ground water.
- (iii) No mining activities will be allowed in forest area, if any, for which the Forest Clearance is not available.
- (iv) The Project Proponent shall obtain Consent to Operate from the State Pollution Control Board, Haryana and effectively implement all the conditions stipulated therein.
- (v) The Project proponent shall submit the baseline data pertaining to initial levels of mining site before starting the mining operations and within one month of the grant of the EC. The levels shall be recorded by taking the section at an interval of 30 meters along the length of the river and at each section line levels shall be recorded at a distance of 5-20 meters as per width of the river.
- (vi) The Project Proponent shall appoint a Monitoring Committee to monitor the replenishment study, traffic management, levels of

production, River Bank erosion and maintenance of Road etc. The proponent should carry out replenishment study annually to ascertain the quantity of material replenished and production should not be more than the quantity replenished. In case the material replenished is more than the quantity mentioned in this Environmental Clearance then quantity that can be excavated is limited to 22.4 Lakh TPA (ROM). The proponent will submit the replenishment study report to Regional Office, MoEF&CC every year. The proponent should carry out a comprehensive replenishment study considering data collected at same location and at same time for at least three years and same needs to be submitted to Regional Office, MoEF&CC after every three years.

- (vii) The proponent will construct five dedicated road for transportation of the mineral from mining site to tar road. The number of trips of the trucks/tipper shall not exceed the estimated quantity of **59**trucks/tipper per day from each road. Transport of minerals shall be done either by dedicated road and it should be ensured that the trucks/tippers carrying the mineral should not be allowed to pass through the villages so that the impact of sound, dust and accidents could be mitigated. The proponent shall engage the sufficient number of staff for traffic management and also keep a proper record of the tippers passing through each haul road/day.
- (viii) Project Proponent shall ensure that the road may not be damaged due to transportation of the mineral and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and density. The tipper/tractor of capacity 25 tonne will be used for mineral transportation.
- (ix) The pollution due to transportation load on the environment will be effectively controlled & water sprinkling will also be done regularly. Vehicles with PUC only will be allowed to ply. The mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be overloaded. Proponent should obtain 'PUC' certificate for all the vehicles owned by the company from authorized pollution testing centre; Washing of all transport vehicle should be done inside the mining lease. The proponent shall maintain a record of water consumption and water spraying on the haul roads.
- (x) Permanent pillars has to be constructed to demarcate width of extraction of ROM leaving 25% of River width from the bank with depth of 1.5m below the ground and 1.2 m above the ground to observe its stability.
- (xi) The Project Proponent shall also take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted in the study area.

- (xii) The illumination and sound at night at project site disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. Project Proponent must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours. The mining operation shall only be carried out in day hours only.
- (xiii) Transportation of the minerals by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200 meters) for the purpose of transportation of the minerals so that the impact of sound, dust and accidents could be mitigated. The Project Proponent shall bear the cost towards the widening and strengthening of existing public road network in case the same is proposed to be used for the Project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads.
- (xiv) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (xv) Implementation of Action Plan on the issues raised during the Public Hearing. The Proponent shall complete all the tasks as per the Action Plan submitted with the budgetary provisions during the Public Hearing and to the Ministry. The budget of ESR should be made at least 2.5 % of total Project Cost. The amount earmarked for ESR should be kept in the separate account and same needs to be audited annually. The report of implementation of the activities proposed in ESR with photographs needs to be submitted to concern Regional Office of MoEF&CC annually.
- (xvi) The proponent shall spent ₹ 99.0 Lakh earmarked for Environmental Management Plan (EMP) within one year of grant of EC. The proponent shall engage minimum 5 persons for implementation of EMP with an annual budgetary provision of ₹ 12.0 Lakh. The budget earmarked for EMP (Capital, Recurring and for manpower) should be kept in a separate account and same needs to be audited annually. The proponent shall submit the annual audit report to the concerned regional office of MoEF&CC.
- (xvii) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment, Forest and Climate Change 5 years in advance of final mine closure for approval.

2.2 J-11015/215/2016-IA.II(M): Sand Mine of M/s Kawaljeet Singh Batra located at MT Karhera Block, YNR B-13, Tehsil Yamunanagar, District-Yamunanagar, Haryana for the production capacity of 23.60 Lakh TPA of sand in ML Area of 67.79 Ha.-Consideration for EC

(IA/HR/MIN/65268/2016)

The proposal of M/s Kawaljeet Singh Batra is for the production of 29.50 Lakhs TPA (modified capacity 23.60 LTPA) of sand (minor mineral). The lease area lies on Yamuna riverbed. The total mine lease area is 67.79 Ha which is non- forest land. The proposed mining project land has been allotted as a single unit for mining of Sand (Minor Mineral) through the riverbed of District Yamuna Nagar (Haryana). The contractor shall be under obligation to carry out mining in accordance with all other provisions as applicable under the Mine Act, 1952, Mines and Minerals (Development and Regulation) Act, 1957, Indian Explosive Act, 1884, Forest (Conservation) Act, 1980 and Environment (Protection) Act, 1986 and the rules made thereunder, Wild Life (Protection) Act 1972, Water (Prevention and Control of Pollution) Act 1974 and Air (Prevention and Control of Pollution) Act, 1981. Letter of Intent (LoI) for mining lease for minor mineral (sand) over an area of 67.79 Ha. has been granted to M/s Kawaljeet Singh Batra from Director of Mines and Geology Department, Govt. of Haryana vide Memo No. DMG/HY/ M.T. Karhera Block Cont/ NYR B5 /2016/5412 dated 20.10.2015. The lease is located in the following latitude and longitude: Pillar No. A: N 30° 00' 10" E 77° 14' 38.5" Pillar No.B: N 30° 00' 10" E 77° 14' 39.5" Pillar No. C: N 30° 00' 09" E 77° 14' 40" Pillar No. D: N 29° 59' 59" Pillar No. E: 77° 14' 36.5" E N 29° 59' 58" E 77° 14' 37.5" Pillar No. F: N 29° 59' 46.5" E 77° 14' 37" Pillar No.G: N 29° 59' 46" E 77° 14'39" Pillar No. H: N 29° 59' 42" E 77° 14'37" Pillar No. I: N 29° 59' 42" E 77° 14' 32.5" Pillar No. J: N 29° 59' 38" E 77° 14' 27.5" Pillar No. K: N 29° 59' 36" E 77° 14' 27.5" Pillar No. L: N 29° 59' 36" E 77° 14' 25" Pillar No. M: N 29° 59' 28" E 77° 14' 25" Pillar No. N: N 29° 59' 28" E 77° 14' 22.5" Pillar No. O: N 29° 59' 07" E 77°

14' 15" Pillar No. P: N 29° 59' 06" E 77° 14' 13.5" Pillar No. Q: N 29° 59' 06.5" E 77° 14' 12" Pillar No. R: N 29° 59' 16" E 77° 14' 07" Pillar No. S: N 29° 59' 24" E 77° 14' 07" Pillar No. T: N 29° 59' 40" E 77° 14' 09" Pillar No. U: N 29° 59' 50" E 77° 14' 17" Pillar No. V: N 29° 59' 50" E 77° 14' 18.5" Pillar No. W: N 29° 59' 52" E 77° 14' 19" Pillar No. X: N 29° 59' 52" E 77° 14' 17.5" Pillar No. Y: N 29° 59' 54" E 77° 14' 17.5" Pillar No. Z: N 29° 59' 54" E 77° 14' 21" Pillar No. A1: N 30° 00' 02" E 77° 14' 25" Pillar No. B1: N 30° 00' 02" E 77° 14' 27.5" Pillar No. C1: N 30° 00' 04" E 77° 14' 30" Pillar No. D1: N 30° 00' 04" E 77° 14' 35" Pillar No. E1: N 30° 00' 06" E 77° 14' 35" Pillar No. F1: N 30° 00' 06" E 77° 14' 33".

2. The PP has proposed to excavate approximately 29.50 Lakhs Tons per annum of sand from the bed of the Yamuna River. The sand will be replenished during monsoon season every year, as the mining will be undertaken on a rotation basis, in such a way that excavated areas of previous years of mining will act as depository for the post monsoon season. Mining activity will be carried out by open cast semi-mechanized method. Light weight excavators will be used for digging and loading of mineral in tippers. No OB/ waste material will be produced. No drilling/ blasting is required as the material is loose in nature. Proper benching of 3.0 m height will be maintained. Roads will be properly made and sprayed by water for suppression of dust. Roads in the lease area for the movement of loaded trippers/ trucks will not have slopes more than 1 in 20. Extraction activities will start in the blocks from the upstream side to downstream side. This will not obstruct the movement of water, if any, during monsoon period in the river course. Approach roads from this block are as already described earlier will be merging with permanent tar roads on both sides of the river for transportation of the mineral to final destinations.

3. The PP has submitted that the total water requirement will be 40 KLD. This water will be sourced from the nearby villages through tankers. All the activities will be carried out in a mechanized manner. The material will be excavated and loaded directly into dumpers, tractors-trolley etc. by the diesel run excavators cum loaders. The mining operation will be done only from sun rise to sun set. So there is no power requirement for the mining activity.

4. The green belt shall be developed as per approved eco-friendly mine lease plan and as per CPCB guidelines. The project proponent shall also develop greenbelt in the premises of the schools, hospitals and also carries out the avenue plantation in the vacant areas along roads. The greenbelt shall be developed by planting indigenous species with the consultation of the State Forest Department.

5. The PP has submitted that no sewerage system is proposed. However, for sanitation purpose portable toilets will be made available. Negligible quantities of silt/clay mixture will be generated, most of which will be left on stream bed for back filling and remaining will be used for plantation. No waste water will be generated from the mining activity of mineral as the project only involves extraction of sand. Domestic waste-water will be disposed in soak pits via septic tank.

6. The PP has informed that there is no human settlement within the mine contract area. No human settlement will be disturbed due to the mining activity. So, no Rehabilitation and resettlement are proposed. The total cost of the Project is approximately Rs. 3.5 Crore/-.

7. The proposal was placed for consideration in the EAC meeting held on 23-25 November 2016. The committee did not consider the proposal and deferred the proposal for granting ToR as the project proponent had not submitted the KML file. The committee also noted that the proposal needs to be revised as the downstream replenishment will be less because of upstream extraction and it needs to be taken into consideration.

8. The project proposal was once again considered during the EAC meeting held during 15-16 December 2016. Based on the information furnished and discussion held, the Committee noted that there were other contiguous mining projects of similar mineral upstream and downstream. The Committee was of the opinion that 20% of the capacity be reduced as replenishment will be affected because of three contiguous projects. After deliberation the committee recommended the reduced capacity of 23.60 Lakh TPA and prescribed the Standard ToR for undertaking detailed EIA study as per Annexure-I.

9. The proponent submitted that Mining Plan and Progressive Mine Closure Plan was approved by Department of Mines and Geology, Haryana

vide memo NO. DMG/HY/MP/MT Karhera Block/YNR-B-13/2016/778 dated 23.02.2017.

10. The proponent submitted that Mining Plan and Progressive Mine Closure Plan was approved by Department of Mines and Geology, Haryana vide memo NO. DMG/HY/MP/MT Karhera Block/YNR-B-13/2016/778 dated 23.02.2017.

11. The proponent submitted the Final EIA report online on 08.06.2017. But as the proponent did not submit the District Survey Report (DSR) in the format as given in the notification dated 15-01-2016, and the copy of the letter from DFO was illegible, PP was asked to submit the DSR, a clear copy of the DFO letter mentioning no forest land is involved and distance in Kilometer from the nearest protected area.

12. The project proponent submitted the copy of DSR in the format as given in the notification dated 15-01-2016, a clear copy of the DFO letter mentioning no forest involved and distance in Kilometer from the nearest PA on 17.08.2017.

13. The proponent mentioned in the Final EIA Report that the base line data is collected for Post Monsoon Season i.e. 1st December 2016 to 28th February 2017 and the Air, Noise, Soil and water quality are within permissible limits. No wildlife sanctuary/biosphere reserve/national parks is present within 10 Km radius of the study area. One species of schedule-I and two species of Schedule-II were observed during study. Subsequently, a budget of ₹ 10.00 Lakhs has been earmarked for conservation of wildlife.

14. The proponent mentioned that the impact on the present noise levels due to mining operations will be restricted to the work zone areas only. The impact on the ambient noise levels will not be felt in the settlement areas due to masking effect with the existing noise levels. There is no drilling and blasting envisaged in the sand mining so there is no impact of vibration due to this project. Hence, the noise levels and vibration impact due to the proposed mining operations on the community will be minimal.

15. The Proponent mentioned that the public hearing was conducted on 23.05.2017 at 11.00 am at Mine Site in village- M.T. Karhera (Yamuna Nagar) under the chairmanship of Deputy Commissioner, Yamuna Nagar. The major issues raised during the Public Hearing are proper compensation

for the land, providing mineral on concessional rate to villagers, the villagers should also allow to use the road that would be constructed for transportation of mineral, providing basic facilities such as drinking water and construction of toilets, compensation to other land owners whose land are outside lease area etc.

16. The proponent during the public hearing committed that 1) before starting the mining, the damaged roads will be repaired by the lease holder for smooth transportation of the mineral .In addition to this the lease holder will construct a separate road of transportation, so that no villagers will be harmed due to this project,2) new toilets will be constructed and drinking water will be provided in nearby villages,3) The proponent before the start of mining settled the compensation for the land with the land owners. In case of non-settlement, application will be filed to Deputy Commissioner through Mining officer along with tentative compensation in shape of bank draft i.e. 10% of annual contract money for settlement of compensation,4) assured to provide mineral to villagers for their community requirements and social works on concessional rate, 5)The Mining will be done up to 3m depth and a safety zone will be left on both the banks. Mining will be done on the central part of the river as per approved mine plan,6)assured that villagers can also use that road constructed by PP, 7) under the Haryana Minor Minerals Concession Rules, 2012 there is a provision that Lease holder will deposit 10% of auction money under Mines and Minerals Development, Restoration and Rehabilitation Fund which will be utilized for restoration and rehabilitation of the area affected due to mining. The amount of this fund in this project is 35.25 lakhs/year, and 8) 105 skilled/unskilled employment will be generated directly from this project, however, many other employment opportunities will also come indirectly through this project like drivers, helper, shopkeepers, tea stalls, repair workshops, gardeners, bill clerks, security guards etc.

17. The project proposal was considered during the EAC meeting held during 18-19th September, 2017 for consideration of the EC. The committee noted that the production capacity of the project is 23.60 Lakh TPA but the emission rate is calculated on 21.00 Lakh TPA. The water requirement for dust suppression is 22 KLD but in the mitigation measures it is mentioned as

40 KLD. The Committee directed the PP to re-calculate the emission rate and water requirement as per proposed production rate. PP mentioned that the water will be drawn from bore-wells. The committee noted that this will affect the ground water level of the area and require permission from the central ground water board. The committee noted that the traffic study is conducted for State and District Roads only, but as per proponent five haul roads will be constructed to connect the mining area with State and District Roads. The impact on the environment due to transportation on these haul roads needs to be assessed and a detailed mitigation plan along with budget needs to be submitted. The financial provision for ESR needs to be clearly mentioned in the EIA Report. The committee also noted that as per the District Survey Report there are around 20 other sand mining leases in the upstream of this project. The committee felt that how the replenishment of the downstream area would be possible if this much amount is excavated in the upstream, Committee asked the Ministry to seek the comments of State Mines and Geology Department on the same. The committee also noted that PP has mentioned in the EIA report that the soil removed from outside riverbed will be simultaneously utilized for reclamation purpose, but as per Mine Plan the PP is only allowed to carry out mining in the river bed.

18. After due deliberation the committee deferred the proposal and was of the opinion that the proposal can be considered after the submission of following:

- 1) Comments of the Department of Mines and Geology, Haryana on the replenishment of the downstream area.
- 2) Revised EIA Report after incorporating the correct emission rate, GLC of PM10 & PM2.5, water requirement for the project, monitoring plan for free silica, assessment of impact on the environment due to transportation on the five haul roads along with mitigation plan and budget for the same, summary of EIA report needs to be revised as the mining is not permitted outside the riverbed.
- 3) The worst case scenario needs to be submitted (i.e. level of pollutants without using any mitigation measures).
- 4) Legal Status of the bore-wells from which water will be withdrawn

and permission of Central Ground Water Control Board for withdrawal of ground water.

19. After due deliberation the committee deferred the proposal and was of the opinion that the proposal can be considered after the submission of following:

- a) Comments of the Department of Mines and Geology, Haryana on the replenishment of the downstream area.
- b) Revised EIA Report after incorporating the correct emission rate, GLC of PM10 & PM2.5, water requirement for the project, monitoring plan for free silica, assessment of impact on environment due to transportation on the five haul roads along with mitigation plan and budget for the same, summary of EIA report needs to be revised as the mining is not permitted outside the riverbed.
- c) The worst case scenario needs to be submitted (i.e. level of pollutants without using any mitigation measures).
- d) Legal Status of the bore-wells from which water will be withdrawn and permission of Central Ground Water Control Board for withdrawal of ground water.

20. The proponent submitted the information online and proposal was considered in EAC Meeting held on 27-28th December, 2017. The Department of Mining and Geology, Haryana in its reply inter alia mentioned that

- a) The river bed area of this part falls in the foothills of Shivalik Hills and enormous quality of sediments/minerals in the form of Boulder, Gravel, sand and /or sand deposits are brought every year during the rainy season
- b) There are 19 proposed mining sites in River Yamuna and out of 19 the two sites were not granted for mining as the same needs to be studied for turtle nesting zone and out of the remaining 17 sites 16 sites have already been granted mineral concession. Out of 16 the 11 projects have already obtained EC and out of which 10 already came under operation. Out of these 10 projects 09 projects have already commenced mining on different dates. The total capacity of these mines is 14.89 Million TPA. But the actual

production achieved is 2.15 Million TPA. If these mines were operated on its full capacity, then would have achieved 4.3 Million Tonne. Thus the total actual production capacity is much lower than the total approved capacity.

c) It is not denied that with the grant of additional approvals the total approved capacity of the mines of the district will increase and it may also increase the total excavation from the District. But it may be stated here that the same shall not be more than the total demand of the mineral. With the approval of the new mines for mining the supply gets re-distributed in all mines operating in the area and not increase the demand rather only improves the supply.

d) The DMG also mentioned in its report that mining in the upstream side of the project will not affect the replenishment of the project in question and suggested that additional condition may be incorporated in EC for maintaining records of river bed level which will also act as the replenishment study of the area.

21. In addition to the above, the proponent also submitted the GLC for PM₁₀ and PM_{2.5} which shows that in worst case scenario the maximum value of PM₁₀ will be 114.060 µg/m³ and PM_{2.5} will be 51.39 µg/m³. The value of PM₁₀& PM_{2.5} after adopting suitable mitigation measures will be 94.86 µg/m³ and 50.88 µg/m³ respectively.

22. The proponent also submitted that the requirement of water for the project will be 45 KLD and they have applied for permission of Central Ground Water Control Board.

23. Based on the documents submitted presentation made and discussion held the committee noted that as per DMG there is very less demand of the Mineral and if the already existing mines would operate at its full capacity then also the amount of mineral that can be extracted is only 28.8 % of the total allocated capacity. DMG also confirmed that with the approval of the new mines for mining the supply gets re-distributed in all mines operating in the area and not increase the demand rather only improves the supply. The Committee also noted that a) GLC of various pollutants in worst case scenario is not correct as there is not much difference in the same at different production level, b) requirement of the water is also not assessed properly, c) the map submitted by the proponent is for only 19 mining

lease, but as per DSR there are 34 mining leases , d) the DSR is not the final DSR rather it is the draft copy, e) The time bound action plan with budgetary allocation for implementation of CSR, ESR and EMP activities is not provided by the proponent. The Committee therefore deferred the proposal and asked the proponent to submit the following:

- a) GLC of various pollutants in a worst case scenario needs to be submitted.
- b) GLC after implementing mitigation measures needs to be submitted for various pollutants.
- c) Final DSR needs to be submitted.
- d) A map clearly showing the position of other mining lease in upstream and downstream of the projects needs to be submitted
- e) Water requirement for the project needs to be submitted.
- f) The activity wise, time bound action plan with budgetary provision for implementation of activities proposed in CSR and ESR needs to be submitted.
- g) The number and designation of the persons to be engaged for implementation of Environmental Management Plant needs to be submitted.

24. The proponent submitted the above information and the proposal was considered in EAC Meeting held in 18-19 January, 2018. The committee noted that demand of mineral is less as per DMG, Haryana and quantity of the water requirement for the project is also on the higher side. The proponent submitted that considering the demand of the mineral and in order control the emission level and reduce the water requirement the quantity of the mineral to be extracted **if further reduced from 23.6 Lakh TPA to 20.0 Lakh TPA** . The GLC in the worst case scenario at 20 Lakh TPA for PM₁₀ will be between 86-106.7µg/m³ and PM_{2.5} will be 45.4-47.5 µg/m³. The GLC after adopting mitigation measures for PM₁₀ will be between 84.8-92.9 µg/m³ and PM_{2.5} will be 45.2-46.1 µg/m³ which is well within the prescribed limit. The proponent submitted that in order to control the traffic density the transportation of the mineral will be done through five dedicated haul roads. The proponent submitted that a sufficient number of water tankers will be engaged for spraying water on the haul roads. Initially the water will be sprayed at maximum intensity of 2L/m² (100% intensity) and

quantity of the water will be reduced to 20% in the subsequent cycles. Thus, the total water requirement for the project will be around 114 KLD (102 KLD for dust suppression, 6.0 KLD for domestic use and + 6.0 KLD for plantation). The proponent submitted that the permission from Central Ground Water Control Authority (CGWA) will be obtained for withdrawal of ground water for the project. The proponent submitted a letter issued by DMG, Haryana, stating that the DSR submitted by the Project Proponent to the EAC is the final DSR. The proponent submitted that budgetary provision for Enterprise Social Responsibility (ESR) will be ₹ 31 Lakh/Annum and the same will be utilized for village level awareness camps (Health Nutrition & Cleanliness, burning of crop residue and related environmental impacts), distribution of sanitary napkins, providing sanitation and drinking water facility, health check-up camps at the mine site and in the nearby villages, construction of toilets (18 Nos) in each of the three nearby villages. The proponent submitted that the capital cost for implementing the Environment Management Plan will be ₹ 53.5 Lakh and recurring cost will be 29.0 Lakh/annum. ₹ 79.50 Lakh (Capital Cost +recurring cost) will be spent on implementation of the Environmental Management Plan in first year and thereafter, ₹ 29.0 Lakh will be spent annually. The proponent submitted that total 5 persons will be engaged for the implementation of the Environmental Management Plan and budget for the same will be ₹ 12 Lakh/annum. The proponent submitted that before starting the mining operation, initial level (baseline data) of the mining site will be taken, for this purpose section will be cut at 30 meter interval along the length of the river and at each section levels will be taken at an interval of 5-20 meters depending on the width of the river. The proponent submitted that the baseline data so collected will be submitted to the Ministry within one month of the grant of EC and for annual replenishment study reputed institute/Government agency will be engaged. Based on the document submitted, presentation made and discussion held the committee **recommended** the proposal for the grant of EC at reduced capacity of 20.0 Lakh TPA with following additional specific conditions.

- (i) Environmental clearance is granted subject to final outcome of **Hon'ble Supreme Court of India, Hon'ble High Court of**

Haryana, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

- (ii) This Environmental Clearance is subject to obtaining permission from CGWA for withdrawal of ground water.
- (iii) No mining activities will be allowed in forest area, if any, for which the Forest Clearance is not available.
- (iv) The Project Proponent shall obtain Consent to Operate from the State Pollution Control Board, Haryana and effectively implement all the conditions stipulated therein.
- (v) The Project proponent shall submit the baseline data pertaining to initial levels of mining site before starting the mining operations and within one month of the grant of the EC. The levels shall be recorded by taking the section at an interval of 30 meters along the length of the river and at each section line levels shall be recorded at a distance of 5-20 meters as per width of the river.
- (vi) The Project Proponent shall appoint a Monitoring Committee to monitor the replenishment study, traffic management, levels of production, River Bank erosion and maintenance of Road etc. The proponent should carry out replenishment study annually to ascertain the quantity of material replenished and production should not be more than the quantity replenished. In case the material replenished is more than the quantity mentioned in this Environmental Clearance then quantity that can be excavated is limited to 20.0 Lakh TPA (ROM). The proponent will submit the replenishment study report to Regional Office, MoEF&CC every year. The proponent should carry out a comprehensive replenishment study considering data collected at same location and at same time for at least three years and same needs to be submitted to Regional Office, MoEF&CC after every three years.
- (vii) The proponent will construct five dedicated road for transportation of the mineral from mining site to tar road. The number of trips of the trucks/tipper shall not exceed the estimated quantity of **53** trucks/tipper per day from each road. Transport of minerals shall be done either by dedicated road and it should be ensured that the trucks/tippers carrying the mineral should not be allowed to pass through the villages so that the impact of sound, dust and accidents could be mitigated. The proponent shall engage the sufficient number of staff for traffic management and also keep a proper record of the tippers passing through each haul road/day.
- (viii) Project Proponent shall ensure that the road may not be damaged due to transportation of the mineral and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and density. The tipper/tractor of capacity 25 tonne will be used for mineral transportation.

- (ix) The pollution due to transportation load on the environment will be effectively controlled & water sprinkling will also be done regularly. Vehicles with PUC only will be allowed to ply. The mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be overloaded. Proponent should obtain 'PUC' certificate for all the vehicles owned by the company from authorized pollution testing centre; Washing of all transport vehicle should be done inside the mining lease. The proponent shall maintain a record of water consumption and water spraying on the haul roads.
- (x) Permanent pillars has to be constructed to demarcate width of extraction of ROM leaving 25% of River width from the bank with depth of 1.5m below the ground and 1.2 m above the ground to observe its stability.
- (xi) The Project Proponent shall also take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted in the study area.
- (xii) The illumination and sound at night at project site disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. Project Proponent must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours. The mining operation shall only be carried out in day hours only.
- (xiii) Transportation of the minerals by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200 meters) for the purpose of transportation of the minerals so that the impact of sound, dust and accidents could be mitigated. The Project Proponent shall bear the cost towards the widening and strengthening of existing public road network in case the same is proposed to be used for the Project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads.
- (xiv) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

- (xv) Implementation of Action Plan on the issues raised during the Public Hearing. The Proponent shall complete all the tasks as per the Action Plan submitted with the budgetary provisions during the Public Hearing and to the Ministry. The ₹31 Lakh/Annum earmarked for ESR should be kept in the separate account and same needs to be audited annually. The report of implementation of the activities proposed in the ESR along with photographs needs to be submitted to concern Regional Office of MoEF&CC annually.
- (xvi) The proponent shall spent ₹79.50 Lakh earmarked for Environmental Management Plan (EMP) within one year of grant of EC. The proponent shall engage minimum 5 persons for implementation of EMP with an annual budgetary provision of ₹ 12.0 Lakh. The budget earmarked for EMP [₹ 53.5 Lakh (Capital), ₹29.0 Lakh (Recurring) and ₹ 12.0 Lakh for manpower] should be kept in a separate account and same needs to be audited annually. The proponent shall submit the annual audit report to the concerned regional office of MoEF&CC.
- (xvii) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment, Forest and Climate Change 5 years in advance of final mine closure for approval.

2.3 Proposed Limestone Mine (Area: 567.788 Ha.) with Production Capacity of 1.0 million TPA with Crusher Capacity 650 TPH at Villages Pagra, Bhitari, Joba, Hinauta&Jigna, Tehsil Ramnagar, District Satna, Madhya Pradesh of M/s UltraTech Cement Ltd.

IA/MP/MIN/71349/2017

The committee **deferred** the proposal as proponent did not attend the meeting.

2.4 Bela Cement Limestone Mine – 01 (BCLM – 01), (ML area 415.097 ha) with Proposed Limestone Production Capacity of 1.5 Million TPA (ROM) and 2.575 Lakh Cu.M Overburden at Village-Devra, Tehsil- Rampur Baghelan, and Village-Kothar, Tehsil- Amarpatan, District-Satna (Madhya Pradesh) by M/s UltraTech Cement Ltd.

IA/MP/MIN/71986/2017

The committee **deferred** the proposal as proponent did not attend the

meeting.

**2.5 Bela Cement Limestone Mine 02 (BCLM - 02), (M.L. Area: 264.095 Ha.) with Limestone Production Capacity of 1.0 Million TPA (ROM) and 1.671 Lakh Cu.M Overburden at Villages Madheypur, Chhijwar & Baheliya, Tehsil- Huzur, District- Rewa, Madhya Pradesh by M/s. UltraTech Cement Ltd.
IA/MP/MIN/71989/2017**

The committee **deferred** the proposal as proponent did not attend the meeting.

2.6 Mining of Manganese Ore with 0.120 million TPA capacity by of M/s MOIL Ltd. in M.L. area of 76.409 Ha located at Bharveli-Awaljhari Village, Balaghat Tehsil, Balaghat District, MP - Consideration of ToR regarding (Proposal no. - IA/MP/MIN/64023/2017)

The proposal of M/s MOIL Limited is for underground mining of Manganese ore with production capacity of 0.120 million TPA in an area of 76.409 Hectares. The project is located at Awaljhari and Bharweli Village, Balaghat Tehsil and District, Madhya Pradesh. The mine lease area falls in Survey of India topo-sheet No. 64 C/1. The PP also presented the KML file during the presentation to indicate the location and shape of mine lease on Google Earth/ DSS. The latitudes and longitudes of the mines lease are **Latitude**21°49'41.33"N to 21°50'49.40"N and **Longitude**80°13'7.408" E to 80°14'4.242".

2. PP submitted that The Mining Lease was granted for a period of 50 years by Department of Mineral Resources, Government of M.P. vide letter no.F-3-25/2013/12/2, dated 24.09.2015. The Mining plan was approved by IBM, Nagpur Regional Office, LR.No. BGT/MN/ MPLN-1166/NGP dated 21/03/2016. The ore deposits will be worked by underground cut & fill method of mining. The mine is located adjacent to Bharveli mining lease of 182.3004 Ha, an existing lease of MOIL. The proposed Manganese mine (76.409 hectares) is proposed to be developed as Mechanized Mine by Underground – Over hand flat back cut and fill stoping with back filling of sand hydraulically from surface to stop by HDPE pipes. PP reported that

mine is proposed to be worked through two shafts build on existing mine leases. The Committee noted that the instant M.L. area is a disjointed lease and is not continuous in shape. Additionally, there is a gap between the adjacent mining leases owned by PP. Hence, underground horizontal access to the M.L. area may involve areas which are not in possession of PP.

3. The estimated water requirement of the project is 100 m³ /day for sand stowing, wet drilling, cooling of plants & machinery, dust suppression and beneficiation of ore. It was submitted by PP that Water requirement for dust suppression (within the lease and outside the lease in nearby villages), plantation and vehicle washing will be met from mine water and from rainwater collected in mining pit. During the presentation, PP reported that the mining lease shall be approached underground by adjacent mining lease. It was also noted that residential area of 14.33 Ha is covered under the current mining lease of PP in which around 200 families are residing. Hence, the proposal may also involve R&R issues. The Committee also asked the PP to involve 200 families during public consultation process.

4. The expected Solid Waste to be generated from mining operations is 9203 m³ for first 5 years. It is proposed to store the quantity with single layer of 5m height, 100m length and 20 m width with 30° slope. There is no court case / litigation is pending against the project. The tentative cost of the project is 77 lakhs.

5. The Committee deliberated on the proposal and noted that in view of the issues related to R&R and M.L. accessibility issues, PP need to work out Cost-Benefit analysis before planning the operation of mine. Further, the capital cost relating to setting up of working shaft also need to be included in the project cost if the same is proposed to be put up under the instant project. The Committee also asked the PP to present the overlap of conceptual plan vis-à-vis working plan for understanding proposed mine operations including the aspect of accessing the mine lease from underground being disjointed and discontinuous in shape. In view of the above, the proposal was deferred.

6. The proponent submitted the above information online and proposal was considered in the EAC Meeting held on 18-19 January, 2018. The proponent displayed the KML file for both the mining lease and the

committee observed that there is some difference in the KML file previously submitted by the proponent and the KML file now submitted by the proponent. The committee also noted that part of the mining lease (Pit-3) is not contiguous. Committee was of the view that as there is a gap between mining lease and as per rule 69 of Mineral Concession Rules (MCR), 1960 the boundaries of the area covered by a mining lease shall run vertically downwards below the surface towards the centre of the earth, thus the proponent can't connect the underground working of pit-2 with pit-3. The proponent previously proposed the location of ventilation shaft in pit-3 and due to the above reason the position of ventilation shaft needs to be shifted to pit-2. The proponent submitted that new mining lease (lease-2) has common boundary at some places with old mining lease (lease-1) and in order to reduce the cost of the mining and to use the infrastructure already developed in lease-1 it is proposed to connect the lease-1 with lease-2. The committee was of the view that there is already a provision in the rule 56 of MCR 1960 for amalgamation of the mining lease which says that "The State Government may, in the interest of mineral development and with reasons to be recorded in writing, permit amalgamation of two or more adjoining leases held by a lessee: Provided that the period of amalgamated leases shall be co-terminus with the lease whose period will expire first." The proponent submitted that there is some administrative difficulties in the amalgamation of the mining leases as the validity of the mining lease-1 is till year 2022 and the validity of lease-2 is for 50 years and if they amalgamate the mining lease the validity of the amalgamated mining lease will be till 2022 only and it would not be possible for them to extract all the mineral from mining lease-2 in this short span of time. The committee also noted that by connecting lease-1 with lease-2 the other issue is the payment of royalty. As per Rule 39 of MCR,1960 "In case run-of-mine is removed from the leased area to a processing plant which is located outside the leased area, then royalty shall be chargeable on the unprocessed run-of-mine and not on the processed product." The committee was of the view that how proponent will ensure the weighment of ROM and payment of royalty before leaving the mine lease area. The committee also noted that as per the rule 111 of Metalliferous Mine Regulations (MMR), 1961, no

working shall be made within a distance of 7.5 meter of the boundary of any mine and permission of Director General of Mine Safety (DGMS) is required for reducing this distance. With respect to other information sought by the Committee pertaining to R&R Plan the proponent submitted that all the infrastructural facilities of the neighbouring mine (owned by PP) will be used for opening and operating this mine, except ventilation shaft. Thus, hardly any surface area will be utilized for this feature. In no case any of the residents of the area will be either asked to leave the place or will they be disturbed in any manner from the point of view of the mining activities or environment. Based on the discussion held and documents submitted the committee **deferred** the proposal and was of the view that proposal could only be considered after submission of the following documents:

- a) The coordinates of both the mining lease duly authenticated by State Government needs to be submitted.
- b) Permission from DGMS under rule 111 of MMR for reducing the distance between the two mining leases so that mining leases can be joined underground.
- c) Permission from State Government to the effect that in the instant case there is no requirement of amalgamation of the mining leases as required under rule 56 of MCR 1960 for a) joining of two adjacent mining leases underground for utilizing the infrastructure already available in the old mining lease for making an entry into the new mining lease b) transportation of ROM from new mining lease to old mining lease c) stacking and storing the ROM of new mining lease on the old mining lease, and d) beneficiation of ROM of new mining lease in the beneficiation plant located in the old mining lease and dispatch of the mineral so obtained after beneficiation from the surface of old mining lease. In addition to these, comments of State Government is also required for the location of weighbridge for weighment of the Mineral/ROM of the new mining lease and for payment of royalty as

required under Rule 39 of MCR, 1960. Whether, it will be on mineral dispatched after beneficiation or on ROM?

2.7 Submission of Replenishment Study Report in respect of following Environmental Clearance (J-11015/371/2012-IA II(M) dated 15.03.2016, J-11015/372/2012-IA II(M) dated 26.05.2016, J-11015/368/2012-IA II(M) dated 15.03.2016, J-11015/369/2012-IA II(M) dated 15.03.2016, J-11015/367/2012-IA II(M) dated 15.03.2016, J-11015/373/2012-IA II(M) dated 15.03.2016, J-11015/374/2012-IA II(M) dated 15.03.2016) granted by MoEF&CC for mining of Sand, Bajri and Boulder by M/S UKFDC.

The Member Secretary briefed the Committee that the Ministry has received several representations from Matri Sadan, Haridwar thereby requesting to revoke the seven Environmental Clearances granted Vide letter No.**J-11015/371/2012-IA II(M) dated 15.03.2016, J-11015/372/2012-IA II(M) dated 26.05.2016; J-11015/368/2012-IA II(M) dated 15.03.2016;J-11015/369/2012-IA II(M) dated 15.03.2016;J-11015/367/2012-IA II(M) dated 15.03.2016;J-11015/373/2012-IA II(M) dated 15.03.2016;J-11015/374/2012-IA II(M) dated 15.03.2016** to Uttarakhand Forest Development Corporation (UKFDC) for mining of Sand, Bajri and Boulder. The main contention of Matri Sadan in is that"**the phenomenon of rolling down of boulders, Stones gets stopped before Rishikesh and at downstream only sand and clay come along with the river flow in rainy season.** The sand and clay does not get deposited in the middle of the flow of the river Ganga at the proposed mining site where above mentioned environmental clearance to M/S Uttarakhand Forest Development Corporation are accorded but get washed away to the place where width of the river bed widens i.e. after village Bhogpur. Whatever sand and clay gets deposited upstream of Bhogpur it needs to be preserved there to maintain groundwater levels. As the Ganga flood plains are quite fertile, lots of seasonal vegetables are grown on it that provides employment to the local people. "In addition to this, the Matri

Sadan also raised the issues pertaining to replenishment study, unscientific mining, illegal mining etc. Based on the representation of the Matri Sadan, Haridwar, a show cause notice under section 5 of EPA, 1986 was issued to M/S Uttarakhand Forest Development Corporation wherein, inter-alia M/S UKDFC was directed to submit a proper replenishment study report. In reply to the show cause notice the M/S UKDFC submitted the replenishment study report for F.Y 2017-18 prepared by Central Soil & Water Conservation Research and Training Institute (Indian Council of Agricultural Research), Dehradun.

2. As the Matri Sadan, Haridwar is not satisfied with this replenishment study report submitted by the UKFDC and also the Hon'ble NGT, New Delhi in its order dated 18.01.2018 directed MoEF&CC to take decision on the replenishment study report submitted by UKFDC, the same was placed in the EAC Meeting held on 18-19th January, 2018. The member secretary also informed the Committee that Ministry has also sought the comments of State Government, Uttarakhand on this issue and the Additional Secretary, Industrial Development Department, Government of Uttarakhand, Dehradun vide letter LR No. 1878 /VII-I/2017-34 kha/17 dated 01.12.2017 inter-alia submitted the following:

- a) The representation of Matri Sadan, Haridwar, citing the above phenomenon of rolling down of boulders and Stones getting stopped before the Rishikesh and at downstream only, and only sand and clay coming along with the river flow in rainy season is not based on any scientific study.
- b) There are numerous rivulets and tributaries of Ganga in vicinity of Rishikesh and Haridwar which drain out boulders into the river Ganga during the rainy seasons. Also there are occasional landslides in the area which leads to the presence of boulders in river Ganga.
- c) The statement of the Matri Sadan that whatever sand and clay gets deposited upstream of Bhogpur needs to be preserved there to maintain groundwater levels, as the Ganga flood plains are quite

fertile , lots of seasonal vegetables are grown on it that provides employment to the local people, is totally irrational as is clear from the various certifications of the Gram Pradhans i.e. the elected representative and head of the Gram panchayat of the villages where the said mining lots are situated. The Gram Pradhans of Gram panchayat Shahpur Sitlakhera ,Ranimajra, Banganga have clearly declared that along the banks of river Ganga in the said mining areas and elsewhere no cultivation of vegetables is carried out.

- d) The Hon'ble High Court of Uttarakhand had passed an order dated 05-12-2016 in PIL no. 126 of 2014, Mohd. Salim Vs State, imposing ban on river bed mining in river Ganga in District Haridwar. The State Government filed an SLP against the said order of the Hon'ble High Court and the Hon'ble Supreme court of India in its order dated 05-05-2017 has stayed- the ban imposed on river bed mining in river Ganga in Distt. Haridwar.
- e) The replenishment study report submitted by ISWCRI, Dehradun on 12th November, 2017 also confirms the replenishment of RBM in the said mining lots in river Ganga and its tributaries in District Haridwar.
- f) It is also submitted that every year in the rainy season a huge amount of river bed material gets deposited in the river Ganga and its tributaries and if the same is not excavated every year then it will pile up and the level of river bed will rise causing floods and damage to the embankments and the lives and property of villages situated along the river banks.
- g) In view of the facts and circumstances explained above, it is requested to **kindly review the whole matter and withdraw the show cause notice under Section 5 of the Environment (Protection) Act, 1986, issued to M/S Uttarakhand Forest Development Corporation**, regarding revocation of Environment Clearances granted to corporation for mining lots in Bishanpur,

Shyampur, Chidiyapur, Rawasan-1, Rawasan-2, Kotawali, for carrying out river bed mining in river Ganga and its tributaries in Distt. Haridwar.

3. The representative of M/S UKFDC presented the replenishment study report prepared by Central Soil & Water Conservation Research and Training Institute (Indian Council of Agricultural Research), Dehradun. The Committee observed that amount of material that can be safely extracted is very less as compared to what was approved earlier. The Committee observed that there are multiple issues involved in this matter and it is necessary to ascertain the ground reality. The Committee was of view that a site visit needs to be conducted by a team comprising of officers/persons from MoEF&CC, representative of Indian Bureau of Mines, CPCB, SPCB, Regional Office of MoEF&CC, District Magistrate (Haridwar), Department of Mine and Geology (Uttarakhand), representative of Central Soil & Water Conservation Research and Training Institute (Indian Council of Agricultural Research), Dehradun who have conducted the replenishment study and the representative of the Matri Sadan. The Committee directed the Ministry to constitute a team on priority and submit its report at the earliest to enable the committee to take a decision on the replenishment study report submitted by the UKFDC.

(2.8) Nagaur Limestone Mine (Block 3B1(b)) of M/s Emami Cement Ltd with production capacity of 1.7 Million TPA (ROM) (Limestone production capacity- 0.68 Million TPA) in M.L. Area of 247.8711 Ha and Crusher capacity of 1500 TPH near village - Deh, Tehsil- Jayal & village - Sarasni, Tehsil- Nagaur, District - Nagaur (Rajasthan) – Consideration of EC regarding (IA/RJ/MIN/62838/2017)

File No. J-11015/23/2017-IA.II (M)

The proposal of M/s Emami Cement Ltd is for production capacity of 1.7 Million TPA

(ROM) (limestone production – 0.68 Million TPA) in respect of Nagaur Limestone Mine - Block 3B1(b) in lease area of 247.8711 Ha. The mine is located at village - Deh, Tehsil- Jayal & village - Sarasni, Tehsil- Nagaur, District - Nagaur (Rajasthan). The mine lease area falls between latitudes of 27⁰15'56.905"N to 27⁰20'1.3632"N and longitudes of 73⁰51'26.057"E to 73⁰55'7.1510"E. The mine lease area is located on Survey of India toposheet no. 45E/15. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS. The proposal of ToR was earlier considered by the EAC in its meeting held during April 27-28, 2017 wherein the Committee recommended for grant of ToR to the PP. The Ministry issued Terms of Reference (ToRs) for the preparation of the Environmental Impact Assessment (EIA) Report and Environmental Management Plan (EMP) vide their letter no. J-11015/23/2017-IA.II (M) dated 25.05.2017. The EIA Report/ EMP, in compliance with prescribed ToR, was submitted to Ministry on 25.12.2017 for appraisal. The instant lease is a fresh lease and hence, aspect related to violation as well as coverage under Supreme Court judgment dated 02.08.2017 is not applicable.

2. PP submitted that the mine lease block 3B1(b) with area of 247.8711 Ha was electronically auctioned by Department of Mines and Geology, Government of Rajasthan for which letter of Intent was issued by Directorate Mines & Geology, Khanij Bhawan, Udaipur vide letter No- 3(23)Mines/Group-2/2016 dated 02.11.2016. The Committee noted that the PP has submitted the total excavation as 1.7 Million TPA while the limestone production capacity is mentioned as 0.68 Million TPA. The mineable reserve is reported as 130.44 Million Tonnes and based on 40% recovery; the limestone is assessed as 52.18 Million Tonnes. The life of mine is worked as 79 years. The Committee noted PP's submissions that no overburden shall be generated and that the mineral waste/ reject shall be used after blending with limestone and then would be either sold to prospective buyers or used in captive cement plant. PP also informed that the production from adjacent lease (Block 3b1(a)) shall also be sent to the same Crusher for further size reduction and processing. The Committee observed that such a situation would eventually increase the production from both the mines and considering that even waste/ mineral reject is proposed to be used from the lease area, PP should re-work its estimates w.r.t. quantity of production from the lease(s). **Further, as mine lease grant shall be for 50 years as per extant rules, it would be appropriate that PP accordingly include the land use in mine for stage equivalent to 50 years i.e. till expiry of lease. PP was asked to prepare a material balance for crushing operations clearly indicating the throughput, final product and reject vis-à-vis the**

excavation from mine(s). Hence, capacity for EC proposal shall be fixed based on such details provided by PP, in line with approved mine plan. The Committee also noted that since the lease is granted for 50 years and project life is 79 years, it would be appropriate that the mining plan may also include the stage-wise land-use plan of lease area at 50 years i.e. till such time when PP have legal control over the lease to address accountability aspects.

3. PP submitted that total area of this mining project is 247.8711 Ha out of which 160.6034 Ha is Government land and 87.2677 Ha is Private agricultural land. The 87.2677 Ha land needs to be acquired for which formalities have been started with District authorities. The Committee noted that PP has mentioned 31 PAFs in the lease area whose land is falling in lease area; however there may be many more families whose livelihood may be dependent on the Govt. Waste land also, accordingly, PP shall collect the information of all PAFs and submit the exact number along with its R&R plan. It was also informed that there are some old pits (about 1m in depth) and dumps created by villagers along with few houses with in the lease area. An 11KV electric line runs through the lease from village Sarasni in south to village Deh in north for which a barrier of 45m on either side has been proposed. Similarly, village approach roads from village Harima to Sarasni passes through the southern part of lease area for which a 45m barrier is proposed to be left on either side as per Rule 109 of MMR, 1961; however, PP informed that diversion proposal for electric line as well as village roads would be taken up with concerned authorities to utilise the area for mining. **The Committee also noted PP's submission that the above aspects are incorporated in the approved mining plan also.**

4. PP informed that Crusher of 1500 TPH capacity will be installed in the north-east corner of the lease area. The ROM will be unloaded in RCC hopper of 100/150m³ Capacity with low level sensor and below RCC hopper, a heavy duty apron feeder with scraper be designed to extract and feed the hopper material load to wobbler Feeder and dust suppression will be done on the RCC hopper. The undersize from the wobblers will be fed to short belt conveyor and the oversize of wobbler will be fed to impactor for making product size of 90% passing 75 mm with maximum size of 130 mm. The final product will be discharged on to the product conveyor and subsequently let to the storage/ plant. Dust extraction system will be used at short belt conveyor while Crusher will have bag filter as Pollution control equipment. The material from crusher will be transported to the company's proposed cement plant and other prospective

buyers via road. No chemical processing of mineral is proposed. **The Committee reiterated that PP may submit details as mentioned at Para 2 w.r.t. material balance.**

5. There is reportedly no Forest, National Park, Wild Life Sanctuaries, Biosphere Reserves, Tiger Reserves, and Wildlife Corridors etc. within 10 km radius of the mine lease area. The authenticated list of Schedule-I species has also been obtained from State Forest Department. The Deputy Conservator of Forest, Forest Department, Nagaur vide letter no.S.No.F()Tech/DCF/2017-18/2945 dated 04.07.2017 and letter no.F()Tech/DCF/ 2017-18/3988 dated 13.09.2017 has provided the same. The Mining Plan and Progressive Mine Closure Plan has been approved by Indian Bureau of Mines (IBM), Ajmer (Rajasthan) vide letter no. 584(4)(3)(1686)/2017 RCM-AJM dated April 6, 2017. The estimated total waste generation from the mining operation is 78.22 million tonnes of rejects which are proposed to be backfilled in 84.85 ha mined out area. About 57,586m³ of top soil will be generated during plan period which is proposed to be temporarily stacked and will be used for plantation.

6. PP informed that proposed method of mining is fully mechanized opencast method with drilling and blasting. The mine working will involve removal of topsoil which will be temporarily stacked in non-mineralized area and same will be used for plantation. Drilling will be carried out by Rock Drill and controlled blasting will be adopted with the use of ANFO and/or Column Charge (Slurry Explosives) and booster charge. Non Electric Initiation System (NONEL) will be used to control ground vibration, noise and fly rocks. The Slope and Blasting study is also proposed during operational phase of mine. Material loading will be done by excavators and mineral will be sized in the crusher of 1500TPH capacity which will be installed at the North-East corner of mining lease area. Transportation of limestone from working face to crusher hopper will be carried out by 40 Tonner dumpers. After crushing, mineral will be either used in the company's cement plant or sold to various users like sweeteners in other cement plants, chemical industries etc.

7. PP submitted that total water requirement for the mining project will be 40 KLD, the same will be sourced from RSMM Mine located at Kasnau- Matasukh, Tehsil Jayal, District Nagaur and mine its own mine sump, as and when developed. It will also make attempt to procure water from tube wells if permitted by Central Ground Water Authority (CGWA). However, it has not clearly mentioned whether any application has been

made to the CGWA for the same. Similarly, the mining working is not expected to intersect ground water at any stage. It was also informed that there is no stream, seasonal or otherwise, is passing through the lease area. Total power requirement for the limestone mining project will be 4000 KW (2500 KW for crusher + 1500 KW for mine lighting and illumination). It will be sourced from Govt. Grid supply/ Proposed Captive power plant. The total manpower required for the proposed mining project will be around 68 persons including Supervisory staff, Skilled, Semi-skilled & Unskilled staff

The Committee noted the submission of PP and asked the PP not to extract groundwater till permission from CGWA is obtained, as all nine blocks of Distt. - Nagaur are categorised as Over-exploited. The Committee also noted that based on the experience gained during appraisal of proposals, the water requirement seems to be understated, hence, PP may accordingly check the same and re-work the estimates.

8. PP submitted that out of the total lease area i.e. 247.8711 Ha, an area of 208.34 Ha shall be mined at conceptual stage. Out of 208.34 Ha area, 84.85 Ha will be backfilled (40 Ha to be covered under plantation & 44.85 Ha to be handed over to Panchayat for community use/ State Govt. directions), 112.13 Ha will be developed as rainwater storage and 11.36 Ha will be covered under bench plantation (on upper benches). The overall Greenbelt development/ Plantation will be done on 68.36 Ha including 5.25 Ha along 7.5m barrier zone, 9.75 Ha along road, 2 Ha on crusher area, 40 Ha on backfilled area and 11.36 Ha on upper benches while an area of 17.2781 ha area will remain undisturbed.

9. The primary baseline data for site specific micro meteorology data, ambient air quality, water quality, noise level, soil and flora & fauna was collected during March, 2017 – May, 2017. The baseline monitoring results of ambient air, surface water, soil, ambient noise and ground water have been reported and the same were compared with respective prescribed ranges viz. NAAQS-2009 (for air monitoring), IS:10500-2012 (for ground water & surface water) and ambient noise limits prescribed by CPCB. The concentrations of PM₁₀ and PM_{2.5} for all the 9 AAQM stations were found between 53.7 to 85.2 µg/m³ and 20.7 to 43.2 µg/m³ respectively. The concentrations of SO₂ and NO₂ were found to be in range of 5.2 to 10.2 µg/m³ and 7.1 to 19.3 µg/m³ respectively. The Committee noted that initiation of mining activities in the area shall have adverse impact on ambient air quality of village Sarsani and Deh. Noise levels vary from 39.9 to 56.7 Leq dB(A) during day time and from 36.4 to 43.5 Leq dB(A) during night time and are

within the respective ambient noise limits. The ground and drinking water analysis show that all groundwater samples are observed to be non-potable. Only one surface water sample was observed to be potable as per IS:10500-2012. The analysis result for soil shows that soil is neutral to slightly alkaline in nature and soil texture is sandy. The impact prediction carried through modelling by PP indicated maximum incremental concentrations w.r.t. PM₁₀ as 2.65 µg/m³ which seem to be impractical considering the operational extent of proposed area. **The Committee asked the PP to submit analysis reports to the Ministry and also carry out pollution modelling w.r.t. PM_{2.5}, SO₂ and CO as proposed mining & crushing activities shall involve road transportation, involvement of heavy machineries and crushing operations that lead to increased diesel consumption. The activity wise emission rates may also be specified.**

10. Public Hearing for the project was conducted on 03.11.2017 at Tehsil Office, Jayal, District Nagaur (Rajasthan), under the chairmanship District Collector, District Nagaur (Rajasthan). The representatives of Rajasthan State Pollution Control Board attended and coordinated the meeting. The major issues raised by the local villagers are related to proper implementation of the environmental management measures during mining operations, provision of skill development training and subsequent employment for the locals, construction of cemented road, local infrastructure development like community centre/ educational institutes/ sanitation/ drinking water/ healthcare facilities leading to positive socio economic impact, action plan for silicosis prevention etc. The villagers also asked the PP to finalise the R&R plan in consultation with Village Level Committee. PP submitted that the proposed mining project will benefit the region and for the same purpose, it has made a provision of ₹3.05 Crores for next five years for both the mine leases including ₹1.75 Crores for the instant lease. **The Committee noted that since PP has prepared a common ESC plan for both the mine leases, it is required to enhance the budget accordingly.** Similarly, for addressing issues related to R&R, it has submitted a proposal to District Administration under LARR Act, 2013.

11. **The Committee observed that the proposal details are not sufficient enough to address the issues and a revised R&R proposal in respect of all PAFs, as identified as per Para 3 may be prepared, as discussed during the meeting. Similarly, the Need Based Activities under R&R plan require revamping with special emphasis on Antenatal care, Female Hygiene, Financial Assistance to**

nearby villages. The Occupational hazard Plan also need to be revamped considered risk based approach and in line with DGMS requirements with inclusion of Heat conditions, as a hazard. The Committee explained to the PP that the expenditure made towards addressing the issues raised in PH shall be covered under Enterprise Social Commitment (ESC) which will be exclusive of CSR budget and contribution made to the District Mineral Fund. Similarly, an amount of ₹140 Lakhs (towards capital expenditure) and ₹50 Lakhs (towards recurring expenditure per annum) is earmarked for implementation of the environmental management plan. The Total project cost is ₹70 Crores with direct employment generation potential would be of 68 persons.

12. The Committee deliberated on the proposal and deferred the proposal. The PP was advised to submit the following:

- PP to include the land use for stage equivalent to 50 years i.e. till expiry of lease in approved mine plan
- PP shall prepare material balance for crushing operations clearly indicating the throughput, final product and reject vis-à-vis the excavation from mine(s) for fixing capacity for EC proposal.
- PP may check the water requirements for the project and re-work the estimates
- PP to submit analysis reports to the Ministry and also carry out pollution modelling w.r.t. PM_{2.5}, SO₂ and CO as proposed mining & crushing activities shall involve road transportation, involvement of heavy machineries and crushing operations that lead to increased diesel consumption. The activity wise emission rates may also be specified.
- PP to revise R&R proposal in respect of all PAFs, as may be identified in Para 3. Similarly, the Need Based Activities under R&R plan require revamping with special emphasis on Antenatal care, Female Hygiene, Financial Assistance to nearby villages.
- Occupational hazard Plan needs to be revamped considering risk based approach and in line with DGMS requirements with inclusion of Heat conditions, as a hazard.
- PP to upwardly revise the common ESC budget as per the deliberations considering actual pricing of goods & services and practical scenario.

(2.9) Nagaur Limestone Mine (Block 3B1(a)) of M/s Emami Cement Ltd with production capacity of 1.7 Million TPA (ROM) (Limestone production capacity- 0.68 Million TPA) in M.L. Area of 267.6288 Ha near village - Deh, Tehsil- Jayal, District - Nagaur (Rajasthan) – Consideration of EC regarding (IA/RJ/MIN/62857/2017)

File No. J-11015/40/2017-IA.II (M)

The proposal of M/s Emami Cement Ltd is for production capacity of 1.7 Million TPA (ROM) (limestone production – 0.68 Million TPA) in respect of Nagaur Limestone Mine - Block 3B1(a) in lease area of 267.6288 Ha. The mine is located at village - Deh, Tehsil- Jayal, District - Nagaur (Rajasthan). The mine lease area falls between latitudes of 27°15'56.905"N to 27°20'1.3632"N and longitudes of 73°51'26.057"E to 73°55'7.1510"E. The mine lease area is located on Survey of India toposheet no. 45E/15. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS. The proposal of ToR was earlier considered by the EAC in its meeting held during April 27-28, 2017 and May 29, 2017 wherein the Committee recommended for grant of ToR to the PP. The Ministry issued Terms of Reference (ToRs) for the preparation of the Environmental Impact Assessment (EIA) Report and Environmental Management Plan (EMP) vide their letter no. J-11015/40/2017-IA.II (M) dated 14.06.2017. The EIA Report/ EMP, in compliance with prescribed ToR, was submitted to Ministry on 28.12.2017 for appraisal. The instant lease is a fresh lease and hence, aspect related to violation as well as coverage under Supreme Court judgment dated 02.08.2017 is not applicable.

2. PP submitted that the mine lease block 3B1(a) with area of 267.6288 Ha was electronically auctioned by Department of Mines and Geology, Government of Rajasthan for which letter of Intent was issued by Directorate Mines & Geology, Khanij Bhawan, Udaipur vide letter No- 3(1)Mines/Group-2/2017 dated 13.04.2017. The Committee noted that the PP has submitted the total excavation as 1.7 Million TPA while the limestone production capacity is mentioned as 0.68 Million TPA. The mineable reserve is reported as 86.77 Million Tonnes and based on 40% recovery; the limestone is assessed as 34.708 Million Tonnes. The life of mine is worked as 54 years. The Committee noted PP's submissions that no overburden shall be generated and that the mineral waste/ reject shall be used after blending with limestone and then would be either sold to prospective buyers or used in captive cement plant. PP also informed that the production from this lease shall be sent to the Crusher proposed to be installed in

adjacent lease (Block 3b1(b)) for further size reduction and processing. The Committee observed that such a situation would eventually increase the production from both the mines and considering that even waste/ mineral reject is proposed to be used from the lease area, PP should re-work its estimates w.r.t. quantity of production from the lease(s). **Further, as mine lease grant shall be for 50 years as per extant rules, it would be appropriate that PP accordingly include the land use in mine for stage equivalent to 50 years i.e. till expiry of lease. PP was asked to prepare a material balance for crushing operations clearly indicating the throughput, final product and reject vis-à-vis the excavation from mine(s). Hence, capacity for EC proposal shall be fixed based on such details provided by PP, in line with approved mine plan. The Committee also noted that since the lease is granted for 50 years and project life is 54 years, it would be appropriate that the mining plan may also include the stage-wise land-use plan of lease area at 50 years i.e. till such time when PP have legal control over the lease to address accountability aspects.**

3. PP submitted that total area of this mining project is 267.6288 Ha out of which 140.8951 Ha is government waste land and 126.7337 ha is private agricultural land. The 126.7337 Ha land needs to be acquired for which formalities have been started with District authorities. The Committee noted that PP has mentioned 44 PAFs in the lease area whose land is falling in lease area; however there may be many more families whose livelihood may be dependent on the Govt. Waste land also, accordingly, PP shall collect the information of all PAFs and submit the exact number along with its R&R plan. It was also informed that there are many (70) old pits (about 3m in depth) and dumps created by villagers along with few houses with in the lease area. A 440V as well as 132 KV electric line runs through the lease from in south and west directions respectively for which a barrier of 45m & 50m on either side has been proposed. Similarly, village approach roads from village Harima to Sarasni passes through the lease area for which a 45m barrier is proposed to be left on either side as per Rule 109 of MMR, 1961; however, PP informed that diversion proposal for electric line as well as village roads would be taken up with concerned authorities to utilise the area for mining. The NH-65 is also passing through the lease area which is under construction for which safety barrier of 50m is proposed to be left. **The Committee also noted PP's submission that the above aspects are incorporated in the approved mining plan.**

4. There is reportedly no Forest, National Park, Wild Life Sanctuaries, Biosphere Reserves, Tiger Reserves, and Wildlife Corridors etc. within 10 km radius of the mine

lease area. The authenticated list of Schedule-I species has also been obtained from State Forest Department. The Deputy Conservator of Forest, Forest Department, Nagaur vide letter no. F()Tech/DCF/2017-18/3146 dated 12.07.2017 and letter no. F()Tech/DCF/ 2017-18/3988 dated 13.09.2017 has provided the same. The Mining Plan and Progressive Mine Closure Plan has been approved by Indian Bureau of Mines (IBM), Ajmer (Rajasthan) vide letter no. 584 (4)(3)(1701)/2017 RCM-AJM dated August 29, 2017. The estimated total waste generation from the mining operation is 52.06 million tonnes of rejects which are proposed to be backfilled in 72.6 Ha mined out area. About 29,154m³ of top soil will be generated during plan period which is proposed to be temporarily stacked and will be used for plantation.

5. PP informed that proposed method of mining is fully mechanized opencast method with drilling and blasting. The mine working will involve removal of topsoil which will be temporarily stacked in non-mineralized area and same will be used for plantation. Drilling will be carried out by Rock Drill and controlled blasting will be adopted with the use of ANFO and/or Column Charge (Slurry Explosives) and booster charge. Non Electric Initiation System (NONEL) will be used to control ground vibration, noise and fly rocks. The Slope and Blasting study is also proposed during operational phase of mine. Material loading will be done by excavators and mineral will be sized in the crusher of 1500TPH capacity which will be installed at the North-East corner of adjacent mining lease area [Block-3B1 (b)]. Transportation of limestone from working face to crusher hopper will be carried out by 40 Tonner dumpers. After crushing, mineral will be either used in the company's cement plant or sold to various users like sweeteners in other cement plants, chemical industries etc.

6. PP submitted that total water requirement for the mining project will be 35 KLD, the same will be sourced from RSMM Mine located at Kasnau- Matasukh, Tehsil Jayal, District Nagaur and mine its own mine sump, as and when developed. It will also make attempt to procure water from tube wells if permitted by Central Ground Water Authority (CGWA). However, it has not clearly mentioned whether any application has been made to the CGWA for the same. Similarly, the mining working is not expected to intersect ground water at any stage. It was also informed that there is no stream, seasonal or otherwise, is passing through the lease area. Total power requirement for the limestone mining project will be 1500 KW for mine lighting and illumination. It will be sourced from Govt. Grid supply/ Proposed Captive power plant. The total manpower required for the proposed mining project will be around 51 persons including

Supervisory staff, Skilled, Semi-skilled & Unskilled staff **The Committee noted the submission of PP and asked the PP not to extract groundwater till permission from CGWA is obtained, as all nine blocks of Distt. - Nagaur are categorised as Over-exploited. The Committee also noted that based on the experience gained during appraisal of proposals, the water requirement seems to be understated, hence, PP may accordingly check the same and re-work the estimates.**

7. PP submitted that out of the total lease area i.e. 267.6288 Ha, an area of 220.70 Ha shall be mined out at conceptual stage. Out of 220.70 Ha, 72.60 Ha area will be backfilled (44.06 Ha area to be covered under plantation and 28.54 Ha area to be handed over to Panchayat for community use/ State Govt. directions), 134.85 ha area will be developed as rainwater storage and 13.25 ha will be covered under bench plantation. The overall Greenbelt development/ Plantation will be done on 88.31 Ha including 7.5m barrier zone while an area of 15.8288 Ha area will remain undisturbed.

8. The primary baseline data for site specific micro meteorology data, ambient air quality, water quality, noise level, soil and flora & fauna was collected during March, 2017 – May, 2017. The baseline monitoring results of ambient air, surface water, soil, ambient noise and ground water have been reported and the same were compared with respective prescribed ranges viz. NAAQS-2009 (for air monitoring), IS:10500-2012 (for ground water & surface water) and ambient noise limits prescribed by CPCB. The concentrations of PM_{10} and $PM_{2.5}$ for all the 9 AAQM stations were found between 53.7 to 85.2 $\mu\text{g}/\text{m}^3$ and 20.7 to 43.2 $\mu\text{g}/\text{m}^3$ respectively. The concentrations of SO_2 and NO_2 were found to be in range of 5.2 to 10.2 $\mu\text{g}/\text{m}^3$ and 7.1 to 19.3 $\mu\text{g}/\text{m}^3$ respectively. The Committee noted that initiation of mining activities in the area shall have adverse impact on ambient air quality of village Sarsani and Deh. Noise levels vary from 39.9 to 56.7 Leq dB(A) during day time and from 36.4 to 43.5 Leq dB(A) during night time and are within the respective ambient noise limits. The ground and drinking water analysis show that all groundwater samples are observed to be non-potable. Only one surface water sample was observed to be potable as per IS:10500-2012. The analysis result for soil shows that soil is neutral to slightly alkaline in nature and soil texture is sandy. The impact prediction carried through modelling by PP indicated maximum incremental concentrations w.r.t. PM_{10} as 2.65 $\mu\text{g}/\text{m}^3$ which seem to be impractical considering the operational extent of proposed area. **The Committee asked the PP to submit analysis reports to the Ministry and also carry out pollution modelling w.r.t. $PM_{2.5}$, SO_2 and CO as proposed mining & crushing activities shall involve road**

transportation, involvement of heavy machineries and crushing operations that lead to increased diesel consumption. The activity wise emission rates may also be specified.

9. Public Hearing for the project was conducted on 03.11.2017 at Tehsil Office, Jayal, District Nagaur (Rajasthan), under the chairmanship District Collector, District Nagaur (Rajasthan). The representatives of Rajasthan State Pollution Control Board attended and coordinated the meeting. The major issues raised by the local villagers are related to proper implementation of the environmental management measures during mining operations, provision of skill development training and subsequent employment for the locals, construction of cemented road, local infrastructure development like community centre/ educational institutes/ sanitation/ drinking water/ healthcare facilities leading to positive socio economic impact, action plan for silicosis prevention etc. The villagers also asked the PP to finalise the R&R plan in consultation with Village Level Committee. PP submitted that the proposed mining project will benefit the region and for the same purpose, it has made a provision of ₹3.05 Crores for next five years for both the leases including ₹1.3 Crores earmarked to the instant lease. The PP has also reportedly prepared a CSR plan of ₹52 Lakhs for socio-economic upliftment of the area. **The Committee noted that since PP has prepared a common ESC plan for both the mine leases, it is required to enhance the budget accordingly.** Similarly, for addressing issues related to R&R, it has submitted a proposal to District Administration under LARR Act, 2013.

10. The Committee observed that the proposal details are not sufficient enough to address the issues and a revised R&R proposal in respect of all PAFs, as identified as per Para 3 may be prepared, as discussed during the meeting. Similarly, the Need Based Activities under R&R plan require revamping with special emphasis on Antenatal care, Female Hygiene, Financial Assistance to nearby villages. The Occupational hazard Plan also need to be revamped considered risk based approach and in line with DGMS requirements with inclusion of Heat conditions, as a hazard. The Committee explained to the PP that the expenditure made towards addressing the issues raised in PH shall be covered under Enterprise Social Commitment (ESC) which will be exclusive of CSR budget and contribution made to the District Mineral Fund. Similarly, an amount of ₹104 Lakhs (towards capital expenditure) and ₹35 Lakhs (towards recurring expenditure per annum) is earmarked for implementation of the environmental

management plan. The Total project cost is ₹52 Crores with direct employment generation potential would be of 51 persons.

11. The Committee deliberated on the proposal and deferred the proposal. The PP was advised to submit the following:

- **PP to include the land use for stage equivalent to 50 years i.e. till expiry of lease in approved mine plan**
- **PP shall present material balance for adjacent lease related crushing operations clearly indicating the throughput, final product and reject vis-à-vis the excavation from mine(s) for fixing capacity for EC proposal.**
- **PP may check the water requirements for the project and re-work the estimates**
- **PP to submit analysis reports to the Ministry and also carry out pollution modelling w.r.t. PM_{2.5}, SO₂ and CO as proposed mining & crushing activities shall involve road transportation, involvement of heavy machineries and crushing operations that lead to increased diesel consumption. The activity wise emission rates may also be specified.**
- **PP to revise R&R proposal in respect of all PAFs, as may be identified in Para 3. Similarly, the Need Based Activities under R&R plan require revamping with special emphasis on Antenatal care, Female Hygiene, Financial Assistance to nearby villages.**
- **Occupational hazard Plan needs to be revamped considering risk based approach and in line with DGMS requirements with inclusion of Heat conditions, as a hazard.**
- **PP to upwardly revise the common ESC budget as per the deliberations considering actual pricing of goods & services and practical scenario.**

(2.10) Bainibasa Graphite Mining & Beneficiation Project of 13272 TPA capacity by M/s Pradhan Industries located in 58.704 Ha M.L. area located at Village - Bainibasa, P.O. Bhairabagada, Tehsil : Muniguda, Dist: Rayagada, Odisha – Consideration of EC regarding (IA/OR/MIN/62694/2017)

File No. J-11015/40/2017-IA.II (M)

The proposal of M/s Pradhan Industries is for Bainibasa Graphite Mining & Beneficiation Project of 13272 TPA capacity in 58.704 Ha of M.L. area. The mine is

located at Village - Bainibasa, P.O. Bhairabagada, Tehsil: Muniguda, Distt: Rayagada, Odisha. The mine lease falls between the latitudes and longitudes of 19°38'47.059"N to 19°38'08.76"N and longitude 83°30'14.78"E to 83°29'38.19"E and Survey of India topo sheet Nos. 65 M/6 and 65 M/10. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS. The proposal of ToR was earlier considered by the EAC in its meeting held during March 20-21, 2017 wherein the Committee recommended for grant of ToR to the PP. The Ministry issued Terms of Reference (ToRs) for the preparation of the Environmental Impact Assessment (EIA) Report and Environmental Management Plan (EMP) vide their letter no. J-11015/40/2017-IA.II (M) dated 13.04.2017. The EIA Report/ EMP, in compliance with prescribed ToR, was submitted to Ministry on 23.12.2017 for appraisal. The instant lease is reportedly a fresh lease and hence, aspects related to violation as well as coverage under Supreme Court judgment dated 02.08.2017 is not applicable.

2. PP reported that the mining lease has been granted by the Govt. of Odisha, Department of Steel & Mines, Bhubaneswar and registered for 50 years by the Collector, Rayagada on 11.01.2017. Accordingly, the lease validity is up to 10.01.2067. The total M.L area is 58.704 hectares out of which, 14.585 hectares is privately owned non-forest land, 0.081 hectare Govt. non-forest waste land and 44.038 hectares forest land. Approval u/s 2(iii) of FC Act, 1980 has been obtained from MoEF&CC vide order F. no. 8-60/2016-FC dated 06.01.2017 for entire Forest area i.e. 44.038 Ha. The application u/s 2(ii) of the FC Act, 1980 has also been filed vide proposal No. FP/OR/MIN/24824/2017 and the same has been recommended for Stage – I approval vide their minutes dated 17.11.2017. However, formal clearance is awaited. The Committee noted the same and informed the PP that Stage-I EC is a pre-requisite for grant of EC, hence, the same may be submitted to the Ministry soon after its grant. The Mining plan has been approved by IBM Bhubaneswar vide Letter No MP/OTFM/20-ORI/BHU/2016-17/7097 dated 17.11.2016. The mineable reserve is reported as 1,34,736 Tonnes and considering the rate of production, the mine life comes as 11 years.

3. PP informed that the ROM contains 6.23% Free Carbon (F.C.) on an average. In order to enhance the F.C. content, a pit-head Beneficiation Plant of 30TPH capacity will be established wherein out of 13,272 TPH throughput; it is expected to get an output (concentrate) of 841 TPA of (65-85% F.C. content). During the process of beneficiation,

12,044 TPA tailings will be generated which will be managed in the Tailing Pond over an area of 2.848 Ha. The Beneficiation Plant will be built-up over an area of 2.136ha. This will have mainly Rougher, Cleaner and Scavenger sections consisting of Ball Mill, Agitator and Floatation Chambers and will operate on froth floatation process. The final product is proposed to be transported to prospective buyers via road after Filtration, Drying & Packing. The Committee recalled that, at ToR stage, the PP submitted about exploring the possibility of selling part of tailings as sand due to high content of silica. For the same reason, an analytical report mentioning 85% (approx.) silica content has been furnished by PP. **The Committee noted that since sand is mineral covered under MMDR Act, 1957 and rules made thereunder, PP shall get the same included in concession agreement along with mine plan before selling it to prospective buyers.**

4. The lease reportedly does not form part of any National park / Wildlife Sanctuary/ Eco sensitive zone of any Sanctuary. The nearest Sanctuary is Kothagarh Sanctuary, which is about 23 Kms from the Project Site. The Divisional Forest Officer, Rayagada has furnished the authenticated list of flora and fauna containing Schedule- I species vide letter no 2789/4F(Misc)1539/2017 dated 25.05.2017. The site specific Wild Life Management Plan has been approved by the PCCF (WL) and Chief Wild Life Warden, Odisha, vide his letter no. 6798 dated 29.07.2017 for ₹67.655 Lakhs for 5 years. Top Soil of 32,450m³ will be generated during the plan period, which will be used for plantation & reclamation process. Overburden of 1,16,910 Cu.M. is likely to be generated during plan period which will be stacked in an earmarked area of 2.338 Ha at a height of 5m approximately. Mineral rejects of 2944 Cu.M. (Sub-grade Ore) will be stored separately and will be beneficiated after blending with higher grade graphite ore. The Committee noted the submissions of the PP and asked him to carryout mining operations strictly in accordance with EC conditions granted by MoEFCC and approved mining plan.

5. PP informed that method of mining shall be open cast mechanized method for excavation of graphite ore with the help of machines like excavator, tipper Rear dump trucks of 10T capacity will be used for transportation of ore to the dispatch point, waste to the dumping site and sub-grade ore to the stacking site. A total of two quarries - I and II are proposed in the Mine Plan. The ultimate extent of the quarries will be confined to the area of 3.885 ha. The recovery factor for beneficiable ore and subgrade ore/mineral rejects has been considered at 0.9 and 0.1 respectively. Graphite ore having

FC content of 5.61 % and size -200 mm generated from mine is being proposed to be fed to the a beneficiation plant of 30 TPH capacity. A series of flotation cells will be installed where the mineral will continuously travel from one cell to the next cell for repeated treatments. The floats in successive treatment become purer and are returned as a middling for further treatments. The air admitted forms bubbles which rise above on the cell to collect the graphite particles. The mineralized graphite bubbles collect as froth on the top, leaving the gangue particle which gets discharged from last cell and which is subsequently discarded. The only chemical reportedly added for froth-floatation process is Turpentine oil.

6. PP submitted that it will require about 59,620 liters/ day, i.e., 60 m³/day of water as make-up water requirement for the entire mine and plant operations. 4.62 m³/day or say 5 m³/day of water will be used for drinking/ domestic purpose. The water for domestic drinking purpose will be sourced from Bore well (Ground Water) within the mining lease area equipped with pumping arrangement. The balance of 55m³/day of water will be drawn from Surface Water sources. The Committee noted that PP has obtained permission from State Water Resources Department vide letter dated 18.12.2017 for withdrawal 55 KLD from Sakata Nala (tributary of Vansadhara river). It was also noted that 60KLD requirement is for make-up water, however, in the start an amount of 104KLD shall be required which is proposed to be sourced from permitted surface water quantity. **The Committee asked the PP to obtain prior-permission from CGWA, in case; it desires to extract ground water for domestic and/ or industrial purposes.**

7. PP submitted that out of the total lease area i.e. 58.704 Ha, an area of 3.885 Ha shall be mined at conceptual stage. 2.338 Ha shall be under Dumps, 2.945 Ha under mineral storage, 2.848 Ha under Tailing pond, 2.136 Ha under Mineral separation plan, 11.617 Ha shall be unutilised, 9.286 Ha under safety zone etc. as per the approved mine plan. The Committee, however, noted that the PP has provided land-utilisation pattern of 44.119 Ha only. The PP submitted that out of 58.704 Ha lease area, 14.585 ha is privately owned non-forest land which is restricted land and will not be utilised. **The Committee, however, noted that since the area of 14.585 Ha is included in lease area, its current status must be furnished with regard to presence of habitation, if any, with all details. Further, since the area of 14.585 Ha is a non-forest land, efforts should be made to utilise non-forest land, as far as possible, so that forest area remains undisturbed to the extent possible. The Committee**

also noted that the land-use break up provided in the approved mine plan with regard to 14.585 Ha also needs to be clearly spelt out in the Table mentioning the 'Present land use'; 'Land-use at the end of scheme period and 'Conceptual land-use'. The Member Secretary informed the Committee that since the Stage-I FC proposal is pending in the Ministry, it would be advisable to wait for the same as it has been observed in many cases that while granting Stage-I FC, the Ministry makes necessary changes in the proposed land use of the mine lease area with a view to minimise disturbance to forest land. However, in case, such land-use changes happen in lease area, then the same shall also require being included in mine plan.

9. PP reported that the primary baseline data for site specific micro meteorology data, ambient air quality, water quality, noise level, soil and flora & fauna was collected during March, 2017 – May, 2017. The baseline monitoring results of ambient air, surface water, soil, ambient noise and ground water have been reported and the same were compared with respective prescribed ranges viz. NAAQS-2009 (for air monitoring), IS:10500-2012 (for ground water), IS:2296 for surface water and ambient noise limits prescribed by CPCB. The concentrations of PM₁₀ and PM_{2.5} for 8 AAQM stations were found between 21.5 to 48.7 µg/m³ and 9.7 to 23.3 µg/m³ respectively. The concentrations of SO₂ and NO₂ were found to be in range of 'Not Detectable' to 7 µg/m³ and 'Not Detectable' to 9.4 µg/m³ respectively. The Committee noted baseline ambient air quality is within the NAAQS limits. Noise levels vary from 48.3 to 62.3 dB(A) during day time and from 41.4 to 43.8 dB(A) during night time. Out of 8 locations, 6 are within CPCB prescribed limits whereas at two locations viz. Muniguda and Bairabguda Road location, high values can be attributed to traffic movement and day to day commuters. The ground and drinking water analysis show that all groundwater samples confirms to the IS-2296 under Class –C and BIS- 10500 for surface water and ground water respectively. The analysis result for soil shows that soil is neutral to slightly alkaline in nature and soil texture is loam (3 locations) and sandy loam (1 location). The Committee noted the impact prediction analysis carried out through modelling by the PP and noted that the resultant GLC's (Ground level concentrations) are within the prescribed limits due to undisturbed nature of the lease area.

10. Public Hearing for the project was conducted on 28.11.2017 at Banibasa village, Rayagada, Odisha under the Chairmanship of Additional District Magistrate, Rayagada . The representatives of Odisha State Pollution Control Board attended and coordinated the meeting. The major issues raised by the local villagers are related to proper

implementation of the environmental management measures during mining operations, provision of employment for the locals, construction of local roads, development of local infrastructure like community centre/ educational institutes/ sanitation/ drinking water/ healthcare facilities leading to positive socio economic impact etc. The villagers asked the PP to ensure that the water of River Sakata remains decontaminated and adequate supply is ensured for downstream villages in dry season. PP submitted that the proposed mining project will benefit the region and for the same purpose, it has made a provision of ₹10.65 Lakhs in next five years under ESC apart from specified CSR activities under CSR program.

11. The Committee observed that apart from the activities mentioned in ESC special emphasis on Antenatal care, Female Hygiene shall also be included. The Occupational hazard Plan also need to be revamped considering risk based approach and in line with DGMS requirements as the tailings generated from beneficiation plant contains heavy metals like Pb (lead). The Committee explained to the PP that the expenditure made towards addressing the issues raised in PH shall be covered under Enterprise Social Commitment (ESC) which will be exclusive of CSR budget and contribution made to the District Mineral Fund. Similarly, an amount of ₹54.5 Lakhs (towards capital expenditure) and ₹4.96 Lakhs (towards recurring expenditure per annum) is earmarked for implementation of the environmental management plan. The Total project cost is ₹4.07 Crores with direct employment generation potential would be of 58 persons.

12. The Committee deliberated on the proposal and deferred the proposal. The PP was advised to submit the following:

- **PP to submit an undertaking clearly saying that sand shall be included in concession agreement along with approved mine plan before selling to prospective buyers.**
- **PP to submit current status of 14.585 Ha non-forest land as per deliberations made in preceding paras.**
- **PP to provide land-use break up in the Table mentioning the 'Present land use'; 'Land-use at the end of scheme period and 'Conceptual land-use' in approved mine plan**
- **PP to submit revamped Occupational hazard Plan considering risk based approach and in line with DGMS requirements addressing the hazards from heavy metal such as lead (Pb) found in tailings.**
- **PP to revise the questionnaire as the same is not in conformity with the**

EIA/ EMP report.

(2.11) Enhancement of limestone production from 0.101 Million TPA to 0.50 Million TPA (equivalent to 0.72 Million TPA of ROM) in respect of Melavenkateswarapuram limestone mines of M/s The Ramco Cements Ltd. (earlier M/s Madras Cements Limited) in M.L. Area of 98.62 Ha located at villages - Pudur, Nadukattur, Senayyampatti, Tehsil - Vilathikulam, Thoothukudi, Tamil Nadu (IA/TN/MIN/18557/2013) – Re-Consideration of Environmental Clearance regarding

[File No. J-11015/136/2013-IA.II(M)]

The proposal of M/s The Ramco Cements Ltd. (earlier M/s Madras Cements Limited) is for enhancement of production capacity from 0.101 Million TPA to 0.50 Million TPA (equivalent to 0.72 Million TPA of ROM) in respect of Melavenkateswarapuram Limestone mines in M.L. Area of 98.62 Ha. The mine is located at Villages – Pudur, Nadukattur, Senayyampatti, Tehsil - Vilathikulam, Thoothukudi (Tamil Nadu). The mine lease area falls between latitudes of 9°17'31.5"N to N 9°18'08.1"N and longitudes of 78°09'48.7"E to 78°11'04.0"E in Survey of India topo-sheet no. 58 K/3. The PP also presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

2. The Committee noted that the proposal of ToR was granted vide letter no. J-11015/136/2013-IA.II(M) dated 09.09.2013 for enhancement of production from 0.101 Million TPA to 0.50 Million TPA (0.72 Million TPA ROM) in mine lease area of 103.53 Ha. The ToR amendment was granted for revised extent of 98.62 Ha vide letter dated 12.06.2015 and extension for validity of amended TOR was also obtained vide J-11015/136/2013-IA.II (M) dated 17.09.2015, extended up to 08.09.2016. Further extension of ToR was applied by PP and deliberated in the EAC meeting on 16.12.2016 wherein EAC noted that ToR validity is not needed since EIA/EMP report has already been submitted. The EIA Report/ EMP was submitted to Ministry on 13.04.2016 for appraisal. Environmental clearance was granted to Melavenkateswarapuram mines vide letter no. J-11015/6/99-IA-II(M) dated 22.11.1999 for expansion involving 1,01,500 TPA from the 103.53 Ha of lease area and 4,06,300 TPA involving additional lease area of 150.10 Ha. (i.e. 1,01,500 TPA from the 103.53 Ha of Melavenkateswarapuram limestone mines and additional 3,04,800 TPA from Sivalarpatti Mines of 150.10 Ha). Subsequently, amended EC for Sivalarpatti limestone mine expansion from

0.304 Million TPA to 0.69 Million TPA was obtained vide letter No. J-11015/192/2005-IA.I(M) dated 09.01.2007.

3. The proposal was earlier considered in EAC meeting held during September 18-19, 2017 wherein the Committee, after making detailed deliberations, deferred the proposal for want of additional information. The PP vide its replies uploaded on the portal on 10.10.2017 and 04.12.2017 had provided the information to the Ministry and accordingly, the proposal was placed in instant meeting. The summary of replies provided by the PP vis-a-vis the information sought by EAC is mentioned as below:

S.No.	Information sought by EAC	Reply submitted by PP
1	Examination of the proposal in view of the judgement passed by Hon'ble Supreme Court of India on 02.08.2017 in the matter of Common Cause Vs Union of India & Others after submission of details of permissions obtained by it since 1993-94 for mining operations (EC as well as Consent) vis-a-vis year-wise authenticated production figure	The details of production and Consent are submitted since 1992-93 vide replies dated 10.10.2017 and 04.12.2017
2	Executed lease deed in support of lease validity till 28.07.2033	The details of lease till 28.07.23 has been submitted and the Department of Geology and Mining & Industries, Govt. of Tamilnadu is in the process of issuing suitable orders as per Section 8A(5) of MM(D&R) Act,2015 for validity up to 28.07.2033.
3	PP to prepare breakup of activities and submit a detailed plan with enhanced budgetary provisions for Enterprise Social Commitment.	A yearly ESC commitment of ₹2.5 Lakhs (up to 5 years) has been provided apart from annual CSR commitment of ₹20 Lakhs.
4	PP to provide specific details on plantation and green belt development carried out till date within and outside the M.L. area. Further, the plantation and green belt development may be shown through KML also. PP to revamp its	About 9.175 Ha of area is covered with plantation / green belt, of which 2.90 Ha is within lease area while 6.275 Ha is outside lease area. At conceptual stage, plantation will be carried out in 35.77 Ha mined out

S.No.	Information sought by EAC	Reply submitted by PP
	<p>plantation programme with budgetary provisions w.r.t. selection of plant species and avoid inclusion of Casuarinas, Eucalyptus and Coconut.</p>	<p>area including 3.897 Ha of backfilled area. Besides, 16.72 Ha of Dump area & Topsoil storage area of 3.70 Ha will also be covered with plantation. Besides, Green belt over an area of 14.13 Ha will be carried out along mine periphery, virgin area and along the mine hauling roads. Thus, about 70.32 Ha covered under Green Belt/ Bench Plantation in the total lease Area. Local species like Neem - Azadirachta indica, Tamarind - Tamarindus indica, Albizia lebbeck - Vagai, Pongamia pinnata - Pungai, etc will be planted. The greenbelt and plantation cost is pegged at ₹9 lakhs per annum and included in EMP cost.</p>
5	<p>PP to provide status of backfilling of topsoil/ rejects along with the timelines proposed for the same.</p>	<p>About 8.47 Mil.t of side burden development quantity from Eastern Block will be used for refilling. An extent of 3.897 Ha will be refilled, about 5.95 ha will be left as water reservoir and the remaining area of 31.87 Ha is will have bench plantation. Top soil to be mined during the period 2028-29 to 2031-32, in Eastern block shall be stacked separately and utilised during reclamation of the Mine & waste dumps.</p>
6	<p>PP to revamp and prepare breakup of activities covered under the Occupational health Action Plan with budgetary provisions.</p>	<p>The Occupational health Action Plan has been provided with budget of ₹6 Lakhs per annum.</p>

4. The Committee deliberated on the information provided by the PP and noted that budget towards implementation of ESC has now been included in addition to the CSR allocation. Further, clarification w.r.t. Occupational Health Plan and Greenbelt development/ Plantation have also been provided with budgetary allocation. The details of backfilling plan are also included in the reply. The Committee noted that since mine lease validity is up to 28.07.2023 only, the same may be mentioned in the EC. As PP has provided information pertaining to past production and consents, the Ministry may examine whether the interpretations of Hon'ble Supreme Court judgment dated 02.08.2017 are applicable to the instant project or not.

5. In view of the deliberations made above, the Committee **recommended the proposal for grant of EC** subject to examination under Hon'ble Supreme Court judgment dated 02.08.2017. The EC validity may be linked with validity of lease i.e. up to 28.07.2023.

(2.12) Periyathirukonam Limestone Mine of M/s The India Cements Limited having production capacity of 2.34 Million TPA in M.L. area of 74.81 Ha located at Villages – Periyathirukonam, Reddipalayam and Edaiyattankudi, District & Taluk – Ariyalur, Tamil Nadu (IA/TN/MIN/61895/2017) – Re-Consideration of Environmental Clearance regarding

File No. J-11015/8/2017-IA.II (M)

The proposal of M/s The India Cements Limited is for production capacity of 2.34 Million TPA (ROM) in respect of Periyathirukonam Limestone Mine in M.L. Area of 74.81 Ha. The mine is located at Villages – Periyathirukonam, Reddipalayam and Edaiyattankudi, District & Taluk – Ariyalur, Tamil Nadu. The mining lease area falls in Survey of India Toposheet No. 58 M/4 and is located between Latitudes - 11° 03'39.45"N - 11° 04'18.54"N and Longitudes - 79° 09'01.03"E - 79° 09'56.38"E. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

2. The proposal of ToR was earlier considered by the EAC in its meeting held during February 20-21, 2017 wherein the Committee recommended for grant of ToR to the PP. The Ministry issued Terms of Reference (ToRs) for the preparation of the

Environmental Impact Assessment (EIA) Report and Environmental Management Plan (EMP) vide their letter no. J-11015/08/2017-IA.II (M) dated 17.03.2017. The EIA Report/EMP, in compliance with prescribed ToR, was submitted to Ministry on 04.10.2017 for appraisal. The instant lease is a fresh lease and hence, violation related aspects as well as Hon'ble Supreme Court judgment dated 02.08.2017 is not applicable.

3. The mining lease has been obtained from the Commissioner of Geology and Mining, Chennai, vide letter Rc.No. 13035/MM1/1999 dated 10.01.2017. The lease deed has been executed on 11.01.2017. The validity of mine lease is till 10.01.2067. The proposed mine lease area of 74.81 Ha is Patta-dry land owned by the company. The mineral reserve prospected by the Department of Geology and Mining, State Government of Tamil Nadu is 13.36 million tons and as per the proposed 2.34 MTPA (ROM basis) production capacity, the estimated life of mine is 10-12 Years. However, as per the suggestion of the EAC during TOR presentation, some fragmented mine lease area on the southern part was excluded from active mining area thereby reducing the area from earlier 54.52 Ha to 47.95 Ha. Accordingly, estimated reserves for mining were also reduced to 12.61 Million Tonnes. The fragmented lease area excluded from active mining is proposed to be specifically used for providing access to the locals and develop Plantation in the fragmented lease area. The Mining plan for the proposed limestone production was approved vide IBM letter no. TN/ALR/MP/LST-2022-MDS dated 12.04.2017. The estimated total waste generation from the mining operation is 7.69 million tons comprising of 2.4 million tonnes of top soil, 3.89 million tons of OB/IB & 1.4 million tons of mineral rejects.

4. The proposal was earlier considered in EAC meeting held during November 27-28, 2017 wherein the Committee deliberated on the proposal and deferred it for want of information. The PP vide its reply dated 09.12.2017 had provided the information to the Ministry and accordingly, the proposal was placed in instant meeting. The summary of replies provided by the PP vis-a-vis the information sought by EAC is mentioned as below:

S.No.	Information sought by EAC	Reply submitted by PP
1	Proof of submission of Conservation Plan to CWLW of the State and enhanced budgetary proposal of the Peafowl Conservation Plan	The proof of submission of Peafowl Conservation Plan to CWLW is submitted with budgetary allocation of ₹5 Lakhs for next 5 years.
2	Air pollution modelling w.r.t. PM _{2.5} , SO ₂	The resultant added concentrations

S.No.	Information sought by EAC	Reply submitted by PP
	and CO for impact prediction	with baseline figures even at worst scenario for PM ₁₀ , PM _{2.5} , SO ₂ , NO _x & CO are within the prescribed NAAQ limits. The details are appended in reply.
3	Status of permission obtained from CGWA/ State Groundwater Department for groundwater intersection as the same is proposed in current scheme of mining	Permission is pending at State Govt. However, affidavit is submitted to the effect that the groundwater intersection shall be done only after receiving necessary clearance from competent authority.

5. The Committee deliberated on the information provided by the PP and noted that the Peafowl conservation plan has been submitted to CWLW. Further, the air modelling study has predicted that the air pollutants shall remain under NAAQS 2009 limits. Apart from the above, the Committee took note of the submission made by PP regarding pendency of its application seeking permission for groundwater intersection. It was informed that the mine development works also take time of 6 months (at least) and hence, considering that groundwater intersection is envisaged at 2nd year onwards, there is a time gap of more than 1 year for obtaining the required permission. Accordingly, an affidavit has also been furnished. **The Committee after making detailed deliberations recommended the proposal for grant of EC with a specific condition that PP shall have to obtain permission from Competent Authority before intersection of groundwater table.**

(2.13) Expansion of production capacity of Shri Bajrang Iron Ore Mine of M/s Shri Bajrang Power & Ispat Limited from 0.25 Million TPA to 0.6 Million TPA (ROM) in M.L. area of 75 Ha located at Compartment No: 641 & 642, Durgukondal Forest Range, Bhanupratappur (East) Forest Division, Hahaladdi & Chahchad Villages, Tehsil – Durgukondal, Uttar Bastar Kanker District, Chhattisgarh (IA/CG/MIN/53139/2016) – Re-Consideration of Environmental Clearance regarding
File No. J-11015/150/2016-IA.II(M)

The proposal of M/s Shri Bajrang Power & Ispat Limited is for enhancement of

production capacity from 0.25 Million TPA to 0.6 Million TPA (ROM) in respect of Shri Bajrang Iron Ore Mine in M.L. Area of 75 Ha. The mine is located at Compartment No: 641 & 642, Durgukondal Forest Range, Bhanupratappur (East) Forest Division, Hahaladdi & Chahchad Villages, Tehsil – Durgukondal, Uttar Bastar Kanker District, Chhattisgarh. The Mining Lease Area is a part of the Survey of India Topo sheet No. 64/D/16 with an average altitude of 550 m above MSL. The mine site is located between 20°11'13.00"N - 20°11'56.50"N latitudes and 80°54'2.50"E - 80°54'22"E longitudes. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

2. The proposal of ToR was earlier considered by the EAC in its meeting held during May 23-24, 2016 wherein the Committee recommended for grant of ToR. The Ministry issued Terms of Reference (ToRs) for the preparation of the Environmental Impact Assessment (EIA) Report and Environmental Management Plan (EMP) vide their letter no. J-11015/150/2016-IA.II (M) dated 10.06.2016. The EIA Report/ EMP, in compliance with prescribed ToR, were submitted to Ministry on 12.10.2017 for appraisal. The instant lease area got first EC vide letter no. J-11015/515/2007-IA.II (M) dated 02.03.2009 for 0.25 Million TPA (ROM). As per the past production details, the mineral production has not gone beyond the EC granted limit of 0.25 Million TPA. PP submitted that mining operations commenced on 09-02-2015.

3. The proposal was earlier considered in EAC meeting held during November 27-28, 2017 wherein the Committee deliberated on the proposal and deferred it for want of information. The PP vide its reply dated 09.12.2017 had provided the information to the Ministry and accordingly, the proposal was placed in instant meeting. The summary of replies provided by the PP vis-a-vis the information sought by EAC is mentioned as below:

S.No.	Information sought by EAC	Reply submitted by PP
1	Reclamation/ backfilling plan vis-a-vis progressive mining activity	The reclamation/ backfilling plan vis-a-vis progressive mining activity is submitted with reply. Towards the end of the mining, benches formed will be reclaimed under terrace reclamation by afforestation by planting fruit bearing trees.
2	Air pollution modelling w.r.t. SO ₂ and CO	The resultant added concentrations

S.No.	Information sought by EAC	Reply submitted by PP
	for impact prediction considering diesel consumption	with baseline figures even at worst scenario for SO ₂ & CO are within the prescribed NAAQ limits. The details are appended in reply.
3	Latest status of the compliances and remedial action taken on the observations made by MoEFCC R.O.	The latest compliance status of EC conditions along with the remedial measures taken w.r.t. the MoEFCC R.O. observations are submitted for consideration of the Committee.
4	Permission obtained from CGWA/ State Groundwater Department for groundwater withdrawal	Permission from CGWA has been obtained on 24.10.2017
5	Details of enhanced Enterprise Social Commitment (ESC) budgetary provisions considering practical aspects in implementing the proposed measures.	The ESC budget has been enhanced to ₹300 lakhs as per the suggestion of EAC and details are appended.

4. The Committee deliberated on the information provided by the PP and noted that the PP has provided the status of Backfilling/ Reclamation plan which is in line with the approved mining plan subject to additional exploration study. Also, the remedial measures taken to comply with the EC conditions have been presented by PP which are further subject to scrutiny by MoEFCC R.O. as well as concerned SPCBs. The impact prediction modelling presented by PP has established that the air quality with regard to SO₂ and CO shall remain under NAAQS standards. The ESC budget has been enhanced to ₹300 lakhs. The Committee, however, emphasised that special measures be taken under ESC towards addressing the issue of female hygiene and antenatal baby care. **The Committee after making detailed deliberations recommended the proposal for grant of EC subject to examination of proposal under Hon'ble Supreme Court judgment dated 02.08.2017.**

(2.14) Expansion of Bharuwadih-Samradih Limestone Mine of M/s. Shree Cement Ltd. from 8.6 Million TPA to 11.06 Million TPA limestone (equivalent to 15.22 Million TPA ROM) in mine lease area of 531.126 Ha and installation of Crushers (Primary – 2 Nos. @ 1200TPH and Secondary – 2 Nos. @ 450TPH) located near villages: Semaradih &

Bharuwadih, Tehsil- Balodabazar in District Balodabazar - Bhatapara, Chhattisgarh (IA/CG/MIN/71839/2017) – Re-Consideration of ToR regarding

The proposal of M/s Shree Cement Ltd. is for seeking ToR for conducting EIA studies for Expansion of Bharuwadih-Samradih Limestone Mine from 8.6 Million TPA to 11.06 Million TPA limestone equivalent to 15.22 Million TPA ROM in M.L. area of 531.126 Ha along with installation of Crushers (Primary – 2 Nos. @ 1200TPH and Secondary – 2 Nos. @ 450TPH). The mine is located near villages: Semaradih & Bharuwadih, Tehsil- Balodabazar in District Balodabazar-Bhatapara, Chhattisgarh. The lease area is bounded between latitudes of 21⁰34'36"N to 21⁰37' 06"N and longitudes of 82⁰03'12"E to 82⁰06' 12"E. The area is located on Survey of India Topo-sheet no. 64 K/2. The PP also presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS. The Project is located in Seismic zone-II.

2. The project was granted EC vide Ministry letter dated 30.03.2017. PP reported that the mining lease over an area of 531.126 ha was granted vide the Government order no. F-2/32/2003/12 (3) dated 25.03.2008 and the mining lease was extended up to 50 years from 11.01.2011 to 10.01.2061 as per Section 8A (5) of M.M.D.R. Amendment Ordinance 2015. Total mine lease area is 531.126 Ha. out of which 452.404 Ha is agriculture land and 78.722 Ha is waste land. The Mining is being carried out by fully mechanized opencast method by a combination of shovel, dumper with drilling & blasting and Heavy Earth Moving Machines. The Limestone from Mine is being transported up to the crusher by dumpers and to cement plant via belt conveyor. There is reportedly no forestland involved in the mine lease. The Dhabadih Reserved Forest is located at 3.5 km from the plant boundary and 0.25 km from the mining lease.

3. PP reported that it has proposed expansion of existing Integrated Cement Plant - Clinker (2 x 2.6 to 3 x 4.5 Million TPA), Cement (2 x 3.0 to 3 x 5.5 Million TPA), Waste Heat Recovery Power Plant (30 to 100MW) and Captive Thermal Power Plant (25 to 125 MW) near Village Khapradih, Tehsil Simga, District- Balodabazar - Bhatapara (Chhattisgarh) for which there would be increased limestone requirement and accordingly, it had presented its expansion proposal in July, 2017 EAC for production up to 22.16 Million TPA of Limestone production (equivalent to 34.56 Million TPA ROM) from instant mine lease. The reported mineral reserves are 198.3 million Tonnes.

4. During July,2017 EAC meeting, the Committee, while deliberating on the proposal, noted that an expansion was granted for the same mine lease with 8.16 million TPA on 30.03.2017 and merely after a passage of less than 4 months, the PP has turned up again for approximately 3 fold increase in the production. The compliance of the latest EC granted for expansion on 30.03.2017 is still to be ascertained. The PP had also submitted that production capacity of 8.16 Million TPA is not achieved as of now and the proposal is linked to the stage-wise expansion of cement plant, a part of which is under construction and expected to be commissioned soon. In view of the above, the Committee observed that the proposal is premature and production targets need to be properly forecasted and aligned. It was also observed that the lease validity is till 2061 and proposed production, if granted, would reduce the mine life to less than 10 years. The proposed steep jump in production capacity requires careful deliberation on the Approved Mining plan (for achieving 34.56 Million TPA (ROM) production capacity) with regard to sustainability aspects. In view of the above, EAC deferred the proposal.

5. In view of the above observation of EAC, the PP has reportedly re-worked its mining plan and has again applied with new proposal number. The Committee asked the PP to withdraw its earlier proposal viz. IA/CG/MIN/65313/2017 as it has already applied a new one. The Committee noted that the approved mining plan has mentioned maximum ROM quantity for the 5 year plan period as 14.72 million TPA. Accordingly, the PP shall revise ROM quantity from 15.22 Million TPA to 14.72 Million TPA. It was also informed that the excavated limestone is proposed to be transported by dumpers to the existing/ proposed crushers within the M.L. and crushed limestone shall be transported to the cement plant. The Committee noted that PP's submission to install four crushers viz. 2 Nos. of 1200 TPH and 2 Nos. of 450 TPH within the M.L. area. The Committee asked the PP to carry out the impact assessment and mitigation study for all the crushers and incorporate the same in the EIA/ EMP Report. The water requirement for the project was reported as nil while the existing water consumption was noted as 300 KLD which is met by ground water or existing mine pit reservoir. The expected manpower requirement for the project is 90 persons while the existing manpower is 200. The project cost is estimated to be ₹67.68 Crores. The estimated capital cost and recurring cost for Environment Management Plan is ₹0.25 Crore and ₹0.1 Crores.

6. Based on the deliberations, the Committee recommended the proposal for grant of Standard ToR for mining projects. As the proposal also involves

installation of Crushers in the lease area, PP is required to address the Crushers related aspects in the EIA/ EMP with details of machinery, costing, pollution mitigation measures, impact prediction studies etc., as may be applicable for the project.

(2.15) Pottangi Bauxite Mine of by M/s. National Aluminium Company Limited (NALCO) with production capacity of 3.5 Million TPA in mine lease area of 697.979 Ha located at Pottangi Village, Pottangi Tehsil, Koraput District, Odisha (IA/OR/MIN/69870/2017) – Consideration of ToR regarding

The proposal of M/s NALCO is for seeking ToR for conducting EIA studies for Pottangi Bauxite Mine with production capacity of 3.5 Million TPA bauxite in M.L. area of 697.979 Ha. The mine is located near Pottangi Village, Pottangi Tehsil, Koraput District, Odisha. The area is located on Survey of India Topo-sheet no. 44 K/14, 44K/15, 44L/2, and 44 L/3. The PP also presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS. The lease area is boundary pillars are as follows:

Boundary Point	Latitude	Longitude
1	18°37'6.45"N	82°57'41.10"E
2	18°34'31.13"N	82°57'30.20"E
3	18°37'3.44"N	82°59'49.95"E
4	18°35'4.75"N	82°58'46.07"E

2. PP reported that Department of Steel & Mines, Govt.of Odisha, had issued Terms and Conditions for grant of Mining lease for Bauxite in an area of 1738.04 Ha in Pottangi village of Koraput district in favour of M/s. NALCO for a period of 50 years, vide letter No. IV (BX) SM-198/ 2015 /5734/SM Bhubaneswar dated 12.07.2016. A Gazette notification for allocation of the said block of 1738.04 Ha for bauxite mining was also issued. Further, a request has been made for issuance of Letter Of Intent over 697.979 Ha for grant of Mining Lease instead of overall area of 1738.04 Ha. The Govt. of Odisha has reportedly made consultation vide letter dated 26.12.17 with Ministry of Mines. The Committee noted that instant case is related to allocation of Lol over part area and accordingly, Satte Govt. is making consultation with Ministry of Mines, Govt. of India. PP submitted that once Lol is granted, the same shall be executed (subject to necessary approvals and clearances) and valid for 50 years from the date of execution

of lease deed. PP informed that the entire lease area of 697.979 Ha is a forest land and it has already made application for forest diversion. The Committee noted the submissions of the PP and observed that the issue of Lol needs to be resolved by PP as it is not clear whether the State Govt. is in agreement with the PP's request for allocation of 697.979 Ha area instead of 1738.04 Ha.

3. The Committee, after making detailed deliberations on the proposal, observed that till the lease area is resolved with State Govt., it is pre-mature on the part of PP to apply for ToR/ FC or the approval of mining plan. Accordingly, the Committee deferred the proposal and asked PP to submit express approval from State Govt. clearly mentioning the mine lease area of 697.979 Ha.

(2.16) Amendment of EC for installation of Overland Conveyor for transportation of Bauxite and change in mining equipment/ machineries for sizing in South Block Mining lease of Panchpatmali Bauxite mines of M/s National Aluminum Company Limited (NALCO) located at Damanjodi village, Koraput Tehsil, Koraput District, Odisha (MLA: 528.262 Ha & 3.15 MTPA) [File No. J-11015/78/2010-IA-II(M)]

The proposal submitted by M/s National Aluminium Company Limited (NALCO) is for seeking amendment in EC granted by the MoEFCC vide letter No. J-11015/78/2010-IA-II(M) dated 28.02.2011. The amendment in EC is sought for *installation of overland conveyor for transportation of bauxite and change in mining equipment/ machineries for sizing of south block mining lease in Panchpatmali Bauxite mines* of M/S National Aluminium Company Limited (NALCO) located at Damanjodi village, Koraput Tehsil, Koraput District, Odisha in mining lease area of 528.262 Ha.

2. The proposal was earlier considered in EAC meeting held in May 29-30, 2017 and September 18-19, 2017 wherein the PP submitted that the existing EC capacity for mining in South Block Mining Lease stands at 3.15 MTPA. The bauxite production from the South Block has been proposed from the year 2019-20. Accordingly, amendment is sought for the purpose of installation of additional overland conveyor, apron feeder, crusher etc. for additional transportation of 3.15 MTPA bauxite from the central & south blocks of Panchpatmali Mining Lease. The mining infrastructure and other new facilities, apart from the overland conveyor, are proposed to be installed within the existing lease area. The EAC, while deliberating on the proposal, noted that EIA was

earlier done considering the transportation of ore through cable belt conveyor. However, the PP now intends to change the transportation mode to overland conveyor system along with installation of Crusher of 1100 TPH with associated equipments and machineries which shall have impact of environment. Hence, the PP was asked to conduct an EIA Addendum Study to assess the impact of the crusher and conveyor system and prepare a mitigation/ management plan.

3. During the September, 2017 EAC meeting, PP submitted that the Mine lease area of 528.262 Ha comprises of 189.552 Ha forest land. The Stage-1 FC has been obtained for 110.30 Ha and for balance land of 79.252 Ha Stage-1 FC is in progress. The Committee deliberated on EIA addendum study and asked PP to present the MoEFCC R.O. compliance report w.r.t. the EC granted for North & Central Block in line with the observations made during the meeting. Similarly, the status of non-compliances mentioned in MoEFCC R.O. Compliance report dated 05.09.2017 were also asked from PP. Apart from the above, the Member Secretary submitted that Ministry also sought information from PP after examination of proposal. Based on the replies furnished by PP in response to EAC meeting and Ministry's letter, the proposal was placed in instant meeting.

4. The Committee deliberated on the information provided by the PP and noted that the Stage-I FC is still pending for part lease area, however, as per PP's submissions, it is carrying out mining in the lease area. Further, the status of Stage-II FC, if any for part area, is also not indicated by the PP. Hence, the proposal may be consulted with FC division for ascertaining whether PP has made any violations related to FC Act, 1980 or not. Apart from the above, the Committee noted the status of Compliance of the EC conditions and observed the following:

- Greenbelt of 7.5m is not created all along lease boundary by PP
- Water harvesting measures have not been put in place and action is required to be initiated on the same by PP
- The fund deposited in CAMPA for implementation of Wildlife Conservation plan have reportedly not been given to NALCO till now, hence, the implementation of Conservation plan is not clear, though NALCO has mentioned that it is implementing activities from its own funds, however, the details of the same are not provided

5. The Committee made detailed deliberations on the proposal and deferred

the proposal. It also observed that for part-forest land in the lease even Stage-I FC is not available, however, mining operations have been initiated which prima-facie seems to be violation of FC Act, 1980. Hence, Ministry may like to refer the case to Forest division to get clarity on the matter else, it may also involve coverage under Hon'ble Supreme Court judgment dated 02.08.2017. The Ministry may also examine the status of compliance of north and central block in line with the remedial measures already taken. PP is also requested to submit the authenticated past production details as well as details of Consents (CTE/ CTO) obtained since start of mining operations. It may also be clarified whether demand has been raised from Department of Mines & Steel, Govt. of Odisha pursuant to Hon'ble Supreme Court's judgment dated 02.08.2017 in the matter of Common cause Vs Union of India & Ors.

(2.17) Integrated Mineral Beneficiation Plant and Iron Ore, Copper and Associated Minerals Mining Project of M/s Jindal Saw Limited located having beneficiation plant of 2.5 million TPA concentrate using 7 million TPA (RoM) in mining area of 1556.78 Ha located at village - Dhedwas, Tehsil & District Bhilwara, Rajasthan – Amendment of Environmental Clearance regarding
(File No. J-11015/176/2009-IA.II(M))

The proposal of M/s Jindal Saw Limited is related to amendment in environment clearance w.r.t. installation of DG set of 2000 KVA in Integrated Mineral Beneficiation Plant and Iron Ore, Copper and Associated Minerals Mining Project of M/s Jinsal Saw Limited located having beneficiation plant of 2.5 million TPA concentrate using 7 million TPA (RoM) in mining area of 1556.78 Ha. The EC to PP was issued vide letter no. J-11015/176/2009-IA.II (M) dated 09.08.2010. The PP informed that the present request for installation of DG set of 2000 KVA is placed to meet eventuality of power break down. The total requirement of Electricity is 10 MW which is supplied by Rajasthan Vidhyut Vitran Nigam Limited. The earlier ECs mentioned two DG sets, each of 500 KVA capacities (Total 1000 KVA capacity). The PP reported that it installed 750 KVA DG set, however, to meet the requirement it has proposed for 2000 KVA DG set for supply to essential and critical units can be maintained and the proposed DG Sets shall be provided with suitable stack of 30 metres height.

2. The Committee in its earlier meeting held in March, 2017 had asked the PP to

submit EIA/ EMP addendum in respect of 2000 KVA DG set (being a case of increase of 1000 KVA of DG Set capacity w.r.t the earlier EC) to assess the environmental impact and proposed mitigation strategy along with Certified Compliance Report of earlier EC conditions from Regional Office, MoEFCC.

3. The PP vide its reply dated 12.12.2017 presented the desired information including the Certified compliance report before the Committee. The Committee noted that, as per the study conducted by PP, the impact of pollutants on air environment is insignificant and within NAAQS 2009. Further, no major non-compliances have either been pointed out by MoEFCC R.O. Compliance report. **In view of the above, the Committee recommended the proposal for grant of EC amendment subject to examination of proposal under Hon'ble Supreme Court judgment dated 02.08.2017.**

The meeting ended with vote of thanks to the Chair.

Annexure-I

Standard Terms of Reference (TOR) for Mining Project

- 1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- 2) A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- 3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- 4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- 5) Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- 6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- 7) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the proposed safeguard measures in each case should also be provided.
- 8) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
- 9) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of

change of land use should be given.

- 10) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- 11) A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- 12) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- 13) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- 14) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 15) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- 16) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
- 17) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 18) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance

certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.

- 19) Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- 20) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
- 21) One season (non-monsoon) [i.e. March - May (Summer Season); October - December (post monsoon season) ; December - February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM₁₀, particularly for free silica, should be given.
- 22) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- 23) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- 24) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 25) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
- 26) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.

- 27) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- 28) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be.
- 29) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.
- 30) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
- 31) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
- 32) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 33) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 34) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 35) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 36) Measures of socio economic significance and influence to the local community

proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

- 37) Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- 38) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 39) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 40) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 41) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 42) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 43) Besides the above, the below mentioned general points are also to be followed:-
 - a) All documents to be properly referenced with index and continuous page numbering.
 - b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
 - d) Where the documents provided are in a language other than English, an English translation should be provided.
 - e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
 - f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
 - g) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
 - h) As per the circular no. J-11011/618/2010-IA.II (I) dated 30.5.2012, certified

report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.

- i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area,(ii) geological maps and sections and
(iii) Sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

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Standardization of EC conditions in Non-coal mining sector

A. Specific conditions

To be suggested by the EAC w.r.t. project.

B. Standard conditions

- 1). Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
- 2). This Environmental Clearance is subject to obtaining requisite NBWL Clearance from the Standing Committee of National Board for Wildlife, if any, as applicable for this Mining project.
- 3). The Project Proponent shall obtain Consent to Operate from the concerned State Pollution Control Board and effectively implement all the conditions stipulated therein.
- 4). Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall complete all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing.
- 5). The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water) for the project.
- 6). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.
- 7). A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment, Forest and Climate Change 5 years in advance of final mine closure for approval.
- 8). No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment, Forest and Climate Change.
- 9). No change in the calendar plan including excavation, quantum of mineral and waste should be made.

- 10). Mining shall be carried out as per the provisions outlined in mining plan approved by Indian Bureau of Mines (IBM)/State Mines and Geology Department as well as by abiding to the guidelines of Directorate General Mines Safety(DGMS).
- 11). The lands which are not owned by Proponent, mining will be carried out only after obtaining the consents from all the concerned land owners as per the provisions of the Mineral Concession Rules, 1960 and MMDR Act,1957.
- 12). Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment, Forest and Climate Change its Regional Office.
- 13). Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of anti- snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
- 14). The critical parameters as per the Notification 2009 such as PM₁₀, PM_{2.5}, NO_x, and Sox etc. in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The circular No. J- 20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- 15). The Proponent shall install online Ambient Air Quality Monitoring System and there should be system for display of digital AAQ data within 03 months at least at three locations as per wind direction. Online provisions of pH and turbidity meters at discharge points of STP and ETP and also at water storage ponds in the mining area may be made. Project Proponent should display the result digitally in front of the main Gate of the mine site.
- 16). Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM₁₀ and PM_{2.5} such as haul road, loading and unloading point and transfer points. Fugitive dust emissions
From all the sources shall be controlled regularly. It shall be ensured that the

Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board.

- 17). Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. The monitoring shall be carried out four times in a year pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board.
- 18). Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre- mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table.
- 19). Regular monitoring of water quality upstream and downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.
- 20). The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain 'PUC' certificate for all the vehicles from authorized pollution testing centres.
- 21). Transportation of the minerals by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200 meters) for the purpose of transportation of the minerals so that the impact of sound, dust and accidents could be mitigated. The project proponent shall bear the cost towards the widening and strengthening of existing public road network in case the same is proposed to be used for the Project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads.
- 22). The illumination and sound at night at project sites disturb the villages in respect

of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

- 23). Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers. Crusher and material transfer points should invariably be provided with Bag filters and or dry fogging system. Belt-conveyors should be fully covered to avoid air borne dust.
- 24). Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers. The material transfer points should invariably be provided with Bag filters and or dry fogging system. In case of Belt-conveyors facilities the system should be fully covered to avoid air borne dust; Use of effective sprinkler system to suppress fugitive dust on haul roads and other transport roads shall be ensured.
- 25). Sufficient number of Gullies to be provided for better management of water. Regular Monitoring of pH shall be included in the monitoring plan and report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
- 26). There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.
- 27). The Project Proponent has to take care of gullies formed on slopes. Dump mass should be consolidated with proper filling/levelling with the help of dozer/compactors.
- 28). The reclamation at waste dump sites shall be ecologically sustainable. Scientific reclamation shall be followed. The local species may be encouraged and species are so chosen that the slope, bottom of the dumps and top of the dumps are able to sustain these species. The aspect of the dump is also a factor which regulates some climatic parameters and allows only species adapted to that microclimate.
- 29). The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The maximum height of the dumps shall not

exceed 8m and width 20 m and overall slope of the dumps shall be maintained to 45⁰. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.

- 30). Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the river and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.
- 31). Plantation shall be raised in a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department and as per CPCB Guidelines. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.
- 32). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- 33). The Project Proponent shall make necessary alternative arrangements, where required, in consultation with the State Government to provide alternate areas for livestock grazing, if any. In this context, Project Proponent should implement the directions of the Hon'ble Supreme Court with regard to acquiring grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded against felling and plantation of such trees should be promoted.
- 34). The project proponent shall take all precautionary measures during mining

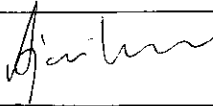
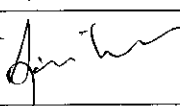
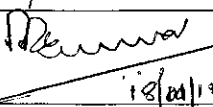
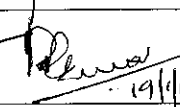
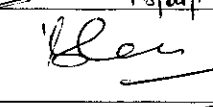
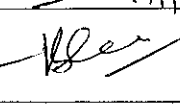
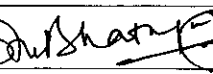
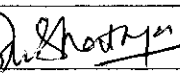


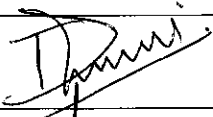
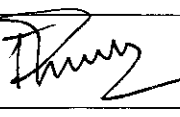
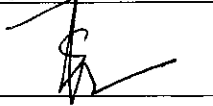
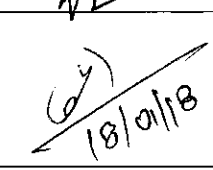
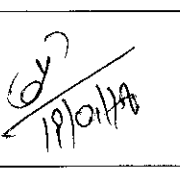
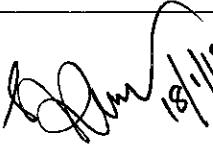
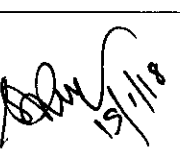
operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

- 35). As per the Company Act, the CSR cost should be 2 % of average net profit of last three years. Hence CSR expenses should be as per the Company Act/Rule for the Socio Economic Development of the neighbourhood Habitats which could be planned and executed by the Project Proponent more systematically based on the 'Need based door to door survey' by established Social Institutes/Workers. The report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
- 36). Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- 37). Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs.
- 38). Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.
- 39). Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
- 40). A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- 41). The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office.
- 42). The project authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- 43). The project proponent shall submit six monthly reports on the status of the

implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional Office, Central Pollution Control Board and State Pollution Control Board.

- 44). The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- 45). A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.
- 46). State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.
- 47). The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment, Forest and Climate Change at www.environmentclearance.nic.in and a copy of the same should be forwarded to the Regional Office.

LIST OF EXPERT APPRAISAL COMMITTEE (MINING - Non Coal Mining Sector)

Name and address	Designation	Date:18/01/20 18	Date:19/01/20 19
Dr.Ajai Kumar B-1302, BestechParkView Spa, Sector-47, Gurgaon, Haryana	Chairman		
Shri B Ramesh Kumar H-No. 6-1-134/6, Balram Compound, Padmarao Nagar, Secundrabad- 500025, Andhra Pradesh	Member	 18/01/18	 19/01/18
Prof.Dr. K.S. Rana MaharanaManzil, 18, Dholpur House, (D.M. Compound), M.G. Road, Agra-1, Uttar Pradesh - 282001	Member		
Prof. A. K. Bhatnagar, JA/4B, Ashok Vihar-I, Delhi - 110052	Member		
Dr. N. C. Karmakar Department of Mining Engineering, Indian Institute of Technology (BHU), Varanasi - 221 005, Uttar Pradesh	Member		
Dr.Hemant S. Sahasrabudde "Utkarsha", LB-53, Housing Board Colony, Laxminagar, Nagpur-440022	Member		
Prof. S. Ramakrishna Rao 50-120-9/1, Tulasi Mani Regency North Extension, Seethammadhara, Visakhapatnam - 530013 Andhra Pradesh.	Member	 18/1/18	 19/1/18
Dr.HimanshuPathak, Professor, Center for Environment Science and Climate Resilient Agriculture, Indian Agricultural Research Institute, New Delhi 110 012	Member		
Dr AL. Ramanathan Professor, School of Environmental Sciences, Jawaharlal Nehru University. New Mehrauli Road, New Delhi- 110067	Member		
Dr.Tushar Kant Joshi, LaxmikantNiwas, SalanGaon, Bhagwantpur, Dehradun-248009, Uttrakhand.	Member		
ShriSantosh Gupta, Flat No. 405, Block -B, Gaur Green Vista, NyayKhand - 1, Indrapuram, Ghaziabad-201014	Member		
Representative of Ministry of Mines Shri. Pushpender Gaur, Dy. Controller of Mines, Ministry of Mines, Shastri Bhawan New Delhi-110001.	Member	 18/01/18	 19/01/18
Representative of Indian Meteorological Mr. V.K. Soni, Scientist "E", (Meteorology/Air Pollution), 609, SatMet Building, MausamBhawan, Indian Meteorological Department, Lodhi Road, New Delhi-110003	Member		
Representative of Wildlife Institute of India, Dr. (Ms.) AshaRajvanshi, Wildlife Institute of India, Chandrabani, Dehradun-248001	Member		
Director IA-Division (Non Coal Mining) Vayu-305, Indira ParyavaranBhawan, Ministry of Environment, Forest & CC, Jorbagh Road, Lodhi Road, New Delhi-110003	Member Secretary	 18/1/18	 19/1/18

HANGE