

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 08TH NOVEMBER, 2019**

The SEAC met on 08th November, 2019 at 11:00 AM in the Conference Hall of Odisha State Pollution Control Board, Bhubaneswar under the Chairmanship of Sri. B. P. Singh. The following members were present in the meeting.

1. Sri. B. P. Singh	-	Chairman
2. Dr. D. Swain	-	Member
3. Prof. (Dr.) P.K. Mohanty	-	Member
4. Sri. J. K. Mahapatra	-	Member
5. Sri. K. R. Acharya	-	Member
6. Prof.(Dr.) B.K. Satpathy	-	Member
7. Dr. K.C.S Panigrahi	-	Member
8. Dr. Sailabala Padhi	-	Member

The agenda-wise proceedings and recommendations of the committee are detailed below:

ITEM NO. 1

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR PATABEDA IRON ORE MINES FOR EXPANSION OF IRON ORE PRODUCTION FROM 0.8 MTPA TO 1.5 MTPA (ROM), ALONG WITH CRUSHER & SCREEN PLANTS OVER AN MINING LEASE AREA OF 28.397HA, AT VILLAGE- PATABEDA, TAHASIL - KOIRA, DISTRICT - SUNDARGARH, ODISHA OF M/S. MGM MINERALS LTD (EC)

1. The proposal is for Environmental Clearance for Patabeda Iron Ore Mines for expansion of Iron Ore production from 0.8 MTPA to 1.5 MTPA (ROM), along with Crusher & Screen plants over an mining lease area of 28.397Ha, at Village- Patabeda, Tahasil - Koira, District - Sundargarh, Odisha of M/s. MGM Minerals Ltd.
2. This expansion project falls under category B as per MoEF&CC, Govt. of India notification in this respect, because of mining lease being less than 50 Ha.
3. ToR for this project has been issued by SEAC, Odisha vide letter No. 847, dated 12.10.2018. Public hearing was conducted on 05.02.2019 in Ganua village ground, Patabeda village, Koira tehsil, Sundargarh through Additional District Magistrate, Sundargarh. Final EIA/EMP report was uploaded online along with necessary documents.
4. The lease area is bounded by Latitude 21^o 56' 01.53" N - 21^o 56' 27.39" N and Longitude 85^o 22' 10.88" E - 85^o 22' 34.66" E and falls in Survey in India Topo Sheet No. 73 G/5.
5. The area can be approached from Barbil and Joda town through Koira. Area is approachable from Koira covering a distance of 20 Km. The nearest railway station is Jaroli Railway station - 4.84km - E (Aerial). The nearest major airport is Bhubaneshwar airport – 190km - SE.
6. The lease area is a prominent hill mound having around 725 mRL in the Southern part and 600 mRL in the NNW portion of the lease area.
7. The mining lease area and the 10 km buffer zone from the periphery of the core zone is devoid of declared ecologically sensitive features like national parks, biospheres, sanctuaries, etc., The area also does not come under CRZ category. Karo - Karampada elephant corridor is located at about 14 km from the mine lease area.

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8. The Odisha-Jharkhand state boundary is at a distance of 14.8Km North East from the lease. There is no perennial nala within the ML area. Kakarpani Nala – 1.5 KM – W., Suna Nadi – 1.5 km – N, Teherei Nala – 6.0 km – SW, Jalpa Nadi – 7.7km – S, Baitarani River – 6.9km –E lies in the buffer zone.
9. Out of the total lease area, 27.086 Ha is Forest area (DLC area) and balance 1.311 Ha is non-forest land. Out of the total forest area of 27.086Ha, Forest Clearance is obtained for 23.581 Ha excluding the safety zone vide letter no. 8(21)28/2003-FCE dated 30.12.2005. The lease was executed on 08.03.2006 for 20 years, which is valid up to 07.03.2026. However, as per MMDR (Amendment) Act 2015, the validity of the lease period is deemed to be extended for a period of fifty years i.e. 07.03.2056. Mine is in operation since 2006.
10. FRA Certificate regarding compliance of scheduled tribes & other traditional forest dwellers(recognition of forest right) act, 2006 in respect of diversion of forest land measuring 27.026Ha, in Patabeda village for mining purpose for non-forest used by M/s. MGM minerals Ltd. under Koira tehsil, from Collector, Sundargarh (Chairman, DLC) is obtained.
11. For Compensatory afforestation in lieu of forest land applied for diversion under Forest Conservation Act, 1980 for this project an equal extent of non-forest land is required. Accordingly a compensatory afforestation scheme was prepared over equivalent non forest land of 39.723 ha in village Sana Thelakudar under Bonai Tehsil of Sundargarh District. NPV of Rs 162.35 lakhs demanded upon 27.086 Ha Of Forests Land is already Paid. The non-forest land allotted for raising Compensatory afforestation was transferred & mutated in favour of State Forest Department and the State Government vide notification number 10F(Div)-19/2008 dated 20.08.2009 and declared the aforesaid non forest land as Protected Forest under Section 33 of Orissa Forest act 1972.
12. Approval of Modification of review of Mining plan for a production of 1.5 MTPA of ROM was obtained from IBM vide letter No. MSM/FM/28-ORI/BHU/2017-18/2184, dated 24.11.2017 for a period of 2017-18 to 2020–21 which is valid up to 31.03.2021.
13. SEIAA has granted the Environmental Clearance for the enhancement of production capacity of iron ore from 0.16 MTPA to 0.8 MTPA vide letter No-SEIAA/33 dated 11.12.2009
14. Consent to operate obtained from State Pollution Control Board, Odisha, vide letter No. 3363/IND-I-CON-5427 dated 25.02.2016, valid upto 31.03.2021 Certified EC Compliance Report for enhancement of production of iron ore from 0.16 MTPA to 0.8 MTPA obtained from obtained MOEF&CC- Eastern regional office, Bhubaneswar vide letter no 109-3-EPE/432 dated 05.03.2019.
15. In pursuance of the Supreme Court order dated 02.08.2017 in CWP no. 114/2014, the DDM, Koira has raised the demand notices no. 5098 dated 02.09.2017 and the project proponent has deposited INR 64, 89,953 as directed.
16. The Proponent has made the payment as demand raised based on the Hon'ble Supreme Court order with an amount of INR 64, 89,953 vide online Treasury Challan Ref. No. 27DD37754D dated 16.12.2017.
17. Considering the demand and supply for high grade sized iron ore in the domestic steel sectors, now it is proposed to enhance the iron ore production from 0.8 MTPA to 1.5 MTPA along with crushing and screening plant.

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18. Hazardous waste Authorization obtained from State Pollution Control Board, Odisha vide letter no IND-IV-HW- 996/1505, dated 31.01.2017 valid up to 31.03.2021.
19. Site specific wild life conservation plan approved by PCCF, Chief Wild life warden, Odisha vide letter no 3474/1WL-SSP-14/2015 DT,BBSR, 22.04.2015. The project has estimated cost of Rs. 368.292 Lakhs which includes cost for both buffer zone i.e. Rs. 272.544 Lakhs which is already deposited in favor of CA Fund and core zone i.e. Rs. 95.748 Lakhs for the conservation and management of wildlife.
20. NOC of CGWA for drawl of 30 m³/day of ground water obtained vide Noc No. CGWA/NOC/MIN/ ORIG / 2018 / 3817 dated 19.07.2018 valid up to 8.7.2020. Agreement for drawl of 150 m³/day from Kakrapani nala valid up to 20.3.2022 executed with Executive Engineer, Sundargarh Irrigation Division.
21. The mine is in operation with due compliance of the Supreme Court Order.
22. The details of past production from 2006-07 (inception of mining operation) till 2017-18

Year	Production
2006-07	67370.000
2007-08	162940.000
2008-09	162510.000
2009-10	150610.000
2010-11	250442 000
2011-12	272600.000
2012-13	290133.798
2013-14	292876.016
2014-15	285480.000
2015-16	41221S.OOO
2016-17	293778.000
2017-18	795118.000
Total	3436072.814

23. Total 65 DTH/bore holes have been drilled till date within the lease area. Out of the total bore holes 34 bore holes have been taken into consideration for resource/reserve estimation. Remaining DTH holes are excluded for estimation of resource. The mineable reserves of 11.11 MT of Iron ore are established.
 24. The mining operations will be through mechanized opencast mining system, involving drilling and blasting etc. The mined ore will be processed in screening and crushing units to meet its trade value in the market.
 25. The total geological reserves is 11.747 Million Tonnes (ROM) and mineable reserves is 11.110 Million Tonnes (ROM). The mine will be operated with Open cast mining method with drilling and blasting of ore zone, excavation, loading and haulage of run of mine ore. Mining was commenced in the lease area since 2006. There are 4 dumps existing in the lease area. The life of the mine is 8 years.
 26. During the plan period, 282500m³ of waste will be generated of which 84750m³ will be used for Road maintenance and 197750m³ will be dumped at earmarked siites. During the conceptual period, 687154m³ of waste will be generated of which 206146m³ will be used for road maintenance and 481008m³ will be used for backfilling of mined out land. During conceptual period, back-filling will be done at 2 places.
 27. The general ground is at 580 m.RL and lies towards west of the lease area. The ground water level is at 578 m.RL. By end of the scheme period it is proposed that the deepest
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level of the quarry will be about 682 m. RL. The ultimate pit depth of the quarry is 570m RL. Hence groundwater intersection is not envisaged in present plan period.

28. The total water requirement will be 180 KLD comprising 150 KLD for mining, greenbelt, workshop and 30 KLD for domestic use. Out of the total water requirement, 150KLD will be sourced from Kakarpani Nalla for which an agreement is made with the Odisha Government. NOC of CGWA for drawl of 30 m³/day of ground water obtained vide NOC No. CGWA/NOC/MIN/ ORIG / 2018 / 3817 dated 19.07.2018 valid up to 8.7.2020.
29. A 500 KVA electrical transformer is available inside the lease area. In addition, 500KVA and 50 KVA diesel generators are also available.
30. The various site services such as site office, weigh bridge, rest shed, first aid center, blasting shed, security house, magazine, guard house, workshop etc. are available in the lease area.
31. The total man power power is 277 persons comprising 217 persons on direct basis and 60 on contract basis in this project and more than 600 people on indirect basis.
32. The mine expansion activities will be carried out in the present mine lease area of 28.397 Ha only. There are no habitations inside the mines lease area. Hence, no R&R plan.
33. M/s. MGM Minerals Ltd. will contribute substantially to the overall economy and social development of the area through CER activities and CSR. Based on need assessment, ` 432.3 Lakhs is allocated under CER budget for a period of 5 years. The CER programmes will be customized and implemented while partnering with government agencies, NGOs, local Panchayats for implementation.
34. A financial provision of ` 87.03 lakhs are made for various future environmental control measures proposed in this report under capital cost and recurring cost of ` 111.98 lakhs per year.
35. The project cost for expansion is ` 4.5 Crores.
36. Lessee has undertaken that “they will follow the guidelines/policy decision by the MoEF&CC, Govt. of India and State Govt. Odisha in regard to the implementation of the recommendations given by NEERI in its carrying capacity study report in respect to Odisha”.
37. The project proponent along with their consultant **M/s Creative Engineers and Consultants, Chennai** made a detailed presentation on the proposal before the SEAC.

Considering the information / documents furnished by the proponent and presentation made by the consultant on behalf of the project proponent, the SEAC decided to take decision on the proposal after the proponent submits the following information/ documents:

1. Supporting documents regarding Forest Clearance with write up for total forest land.
2. There is 0.7 ha. private land within lease area. Copy of agreement of private land owners with the mines.
3. Copy of Blasting and Slope study report.
4. Soil analysis of the lease area needs to be corrected and report should be submitted again.

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5. Submission of water balance to be used in this expansion in detail both monsoon and non-monsoon period.
6. Submission of report on Traffic Density Study from reputed Govt. institution.
7. There is excess production during the period 2007-08 and 2008-09. Demand raised by the Govt. and the proponent has paid the penalty for excess production. The proponent has to justify that why the case will not be treated as a violation case.
8. Status of permission from Water Resources Department, Govt. of Odisha for drawal of ground water.
9. Compliance to recommendation of CSIR-NEERI Report on "Carrying Capacity Study for Environmentally Sustainable Iron and Manganese Ore Mining Activity in Keonjhar, Sundargarh and Mayurbhanj districts of Odisha State" has not been incorporated in the EIA/EMP report. The same may be incorporated in the EIA/EMP report and revised EIA/EMP report to be submitted.

ITEM NO. 2

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR ADAGHAT IRON ORE DEPOSIT FOR PRODUCTION OF IRON ORE 3,00,300 PER ANNUM OVER AN MINING LEASE AREA OF 15.074 HA AT VILLAGE – ADAGHAT, SUB - DIVISION – BONAI, DIST- SUNDARGARH OF M/S. NATIONAL ENTERPRISES (EC)

1. The proposal is for Environmental Clearance for Adaghat Iron Ore Deposit for production of Iron ore 3,00,300 per annum over an mining lease area of 15.074 Ha at Village – Adaghat, Sub - Division – Bonai, Dist- Sundargarh of M/s. National Enterprises
2. The proposed mine lease hold area of 15.074 Ha granted in favour of M/s National Enterprises is in village Adaghat of Bonai Sub-division in Sundargarh District of Odisha. Sri Charanjit Singh Grewal is the proprietor of the firm.
3. As per EIA Notification dated 14th Sep, 2006 as amended from time to time, the project falls under Category “B”, Project or Activity 1(a) – Mining of Minerals.
4. M/s National Enterprises, Barbil had applied to Govt. of Odisha on 24.2.1997 for grant of a mining lease over 15.074 ha. in Adaghat village of Sundargarh dist. for mining of Iron ore. The Steel & Mines Dept. of the State Govt. had issued terms and conditions for acceptance by the applicant regarding grant of the mining lease vide letter no. 12730/SM, dt 20.10.2000 with a condition to obtain Forest Clearance from MoEF under FC Act, 1980 for a period of 20 years. The lease deed was executed on 11.01.2017.
5. Modified mining plan has been approved by Regional Controller of Mines, Indian Bureau of Mines vide letter no- MPM/OTF-MECH/14-ORI/BHU/2010-11 dated 27-09-2010.
6. The area is featured in Toposheet No 73G/5 bounded by latitude 21° 55' 45" N - 21° 56' 00" N and longitude 85° 18' 45" E - 85° 19' 15" E. Plot No. 225(P), 226(P), 227(P), 228(P), 341(P) Khata No. 39. Nearest town is at Koira, 7.5 km where all facilities like medical, postal, education etc are available. Nearest Railway station is Barbil, 40kms away and Roxy railway siding is at a distance of 38 km. Nearest airport is Bhubaneswar, 195km. This Kundra / Suna Nadi, a tributary of Baitarani River, controls the drainage system of the area and flows due north in the region and then east to meet the Bay of Bengal. Nearest habitation is 3km from project site. Interstate boundary between Odisha and Jharkhand lies at distance of 12km in North-West direction from the proposed project site.

7. The entire lease area is in DLC Forest Land. Stage –I clearance for the forest land involved in the lease area has been issued by the Eastern Regional Office, Bhubaneswar of the MoEF & CC vide letter no. 5-ORC256/2015-BHU, dt. 26.09.2018. 13.674 ha. of non-forest govt. land has been identified in village Paramdihi (Khata No. 32, Plot No. 503, 504, 505 & 487) of Koira Tehsil (Banki Forest Range of Rourkela Forest Division) in lieu of forest land involved in the ML area for compensatory afforestation.
8. Earlier Public Hearing for EC was conducted on 15.05.2012 for the project and the final EIA /EMP report was presented for EC before the SEAC. Though SEAC had recommended for EC after the presentation but SEIAA has not issued final EC letter due to the want of Stage-I of Forest Clearance. Later on 10.06.2019, SEIAA, Odisha vide letter no. 6824/SEIAA has directed the company to apply afresh online for issue of ToR to conduct EIA study.
9. The mining lease area is mainly dominated by hill & a part of NW-SE trending hill. The highest altitude is 635mRL and lowest elevation is 560mRL. No seasonal or perennial nala in the ML area. Surface runoff water flows along the natural slopes into Suna Nadi/ Kundra nala in eastern side of the lease area
10. The mining lease area is located in tropical region where climate is characterized by very hot summers and cool winters. Temperature: 5^oC to 43^oC and Annual Rainfall (Average): 1535.5mm
11. Geological reserve of 22, 97, 264 Ton and Mineable reserves of 20, 31, 533 Ton have been assessed for the iron ore in the lease area. Based on the exploration input it is planned to produce 3, 25,152 Ton iron ore per annum. Samples collected randomly from the various type of iron ore exposures show the average Fe- content of 63.24%. Life of the mine is 9 years.
12. Open cast method of mining on single shift basis is proposed to excavate the iron ore to gradually achieve the production target. Drilling and blasting will be adopted for loosening of hard rock mass both by the jack hammer drills and DTH drills. Height and width of the benches will be kept at 5m each.
13. 3,56,142 m³ waste will generate during the plan period. Ore to waste ratio was 1:0.36.
14. The mine will provide employment to 258 persons daily.
15. 13 m³/day water will require which will source from Suna Nadi. The peak water requirement shall be 13 m³/ day and shall be met from the ground water with due permission. The ground water of the area varies between 564.3mRL to at 561.7 mRL below the general surface level. The depth of such water tables are assumed in comparison with the nearest dug wells in the inhibited area. Expected depth of mine working by the end of the life of the miens is up to 12m (up to 588mRL) from surface level. Thus ground water table is not going to be intersected.
16. The area does not have any monuments of historical or archaeological importance, pilgrimage, any place of tourist interest, national park, bird or wild life sanctuary.
17. The project cost is estimated to be ` 5 crores and there is a budgetary provision of ` 70 lakhs as capital cost towards environmental protection measures. ` 15 lakhs will be spent under CER for various socio-economic activities, whereas ` 7 lakhs will be spent annually towards regular maintenance & recurring activities.

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18. The SEAC in its meeting held on 26.07.2019, after detailed presentation by the project proponent along with consultant noted that the public hearing for the proposal had already been conducted earlier on 15.05.2012 and a copy of which is also furnished with EIA/EMP report earlier. For this reason, the SEAC exempted conducting a fresh Public Hearing.
19. Environmental Clearance for the proposal had already been recommended earlier. But, due to non-submission of stage-I Forest Clearance within the stipulated time, Environmental Clearance could not be issued. This is a proposal for reappraisal.
20. The SEAC issued fresh Terms of References for EIA Study vide letter no. 229/SEAC-7/19, dated 26.08.2019 in terms of the provisions of the MoEF&CC, Govt. of India OM No. J-11013/41/2006-IA.II(I), dated 18.05.2012. The proponent has submitted fresh EIA/EMP report as per Terms of Reference issued as above.
21. Lessee has undertaken that “they will follow the guidelines/policy decision by the MoEF&CC, Govt. of India and State Govt. Odisha in regard to the implementation of the recommendations given by NEERI in its carrying capacity study report in respect to Odisha”
22. The Environment Consultant **M/s Centre for Envotech and Management Consultancy Pvt. Ltd. Bhubaneswar** along with the proponent made a detailed presentation on EIA/EMP report before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant on behalf of the project proponent, the SEAC decided to take decision on the proposal after the proponent submits the following information/ documents:

1. Copy of permission letter for water drawl from Sona Nadi.
2. Submission of soil analysis reports.
3. Re submission of water holding capacity of soil with standard guidelines
4. Proposal for installation of Piezometer for groundwater monitoring.
5. Comprehensive traffic density study needs to be done and submitted.
6. Occupational health check-ups shall be done and submitted.
7. Copy of Blasting and Slope study report.
8. The Sona River is 200 meter away from the mines. Impact on Sona River due to mining activity and majors to be taken by the mines to protect Sona River.

ITEM NO. 3

PROPOSAL FOR EXTENSION OF ENVIRONMENTAL CLEARANCE OF BADADUMULA DECORATIVE STONE MINES FOR PRODUCTION OF DECORATIVE STONE @12,000 CUM/ ANNUM OVER AN MINING LEASE AREA OF 49.193 HA. LOCATED AT VILLAGE – BADADUMULA, TAHASIL – DIGAPAHANDI, DIST- GANJAM, ODISHA, OF M/S. AJAX PETRO (EC)

1. The proposal is for Extension of Environmental Clearance of Badadumula Decorative Stone Mines for production of Decorative stone @12,000 cum/ annum over an mining lease area of 49.193 Ha. located at Village – Badadumula, Tahasil – Digapahandi, Dist- Ganjam, Odisha, of M/s. Ajax Petro.

2. Mine was in operation since 29.03.1990 and the operation was discontinued from March 2012 to March 2016) due to want of Statutory Clearances pursuant to the Order of Mining Officer, Berhampur vide letter no. 1352/Mines, dated 21.03.2012.
3. After closure of the mine, the lessee has processed the application and had obtained Environmental Clearance from SEIAA, Odisha vide letter no: 2727/SEIAA, Dt: 23.12.2014 for 5 years.
4. In the meantime, Mine Lease has been renewed by Dept. of Steel and Mines, Govt. of Odisha vide letter no.9380/S&M on 22.09.2015 and valid for 20 years from 29th March 2010 to 28th March 2030.
5. Mining Scheme for the period 2016-17 to 2020-21 is also prepared and approved by Director of Mines vide letter no. 5476/DM, dated 09.06.2016 and the scheme is valid till 2020-21.
6. Consent to Operate was granted by SPCB vide order no. 163, dated 09.01.2015 was valid till 31.03.2019 and the same is also revalidated till 22.12.2019.
7. Production is again continued from 2016. In the meantime, EC is going to be expired on 22.12.2019. Hence, Lessee applied for extension of EC up to the lease period (i.e. upto March 2030).

After detailed discussion on the proposal, the SEAC decided to consider the proposal for issue of extension of environmental clearance of Badadumula Decorative Stone Mines after the proponent submits District Survey Report (DSR).

ITEM NO. 4

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF RAIKELA IRON ORE MINES FOR ENHANCEMENT OF IRON ORE PRODUCTION CAPACITY FROM 0.864 MTPA TO 2.99 MTPA ALONG WITH CRUSHING AND SCREENING FACILITY OVER AN MINING LEASE AREA OF 67.586 HA. AT VILLAGE – RAIKELA, TAHASIL - KOIRA, DISTRICT- SUNDARGARH OF M/S. GEETARANI MOHANTY (TOR)

1. The proposal is for Terms of Reference for Raikela Iron ore Mines for enhancement of Iron Ore Production Capacity from 0.864 MTPA to 2.99 MTPA along with Crushing and Screening Facility over an mining lease area of 67.586 Ha. At Village – Raikela, Tahasil - Koira, District- Sundargarh of M/s. Geetarani Mohanty.
2. Location of the mine is at Village Village-Raikela, Tehsil-Koira, District– Sundargarh, Odisha. The site Coordinates is Latitude: 21⁰ 51' 54.47" to 21⁰ 52' 35.39"N.
3. Initially the mining lease was executed in favor of Smt. Geetarani Mohanty for a period of 20 years w.e.f 02.07.1991 up to 01.07.2011. Renewal application was made on 20.05.2010 under rule 24A (6) of MCR 1960 for a period of further 20 years i.e. up to 01.07.2031. All the statutory clearances were obtained during 2014. In the mean time under section 8A(3) of the MMDR amendment act, 2015 the state government has extended the validity period of the mining lease up to 01.07.2041 i.e. 50 years from the date of original mining lease 02.07.1991. State Govt. asked for payment of compensation against EC violation.
4. In pursuance of the supreme court order dated 30.12.2017 in CWP no. 114/2014, DDM, Koira raised the demand notice vide no. 5054 dated 02.09.2017 towards environmental clearance matter, the project proponent has paid the compensation of Rs 207,94,42,000.00 as directed. Further a sum of Rs 44,37,71,760.00 for production made

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in excess of the lower of the approved limit under MP & CTO as per the demand of State Govt.

5. After payment of compensation, supplementary lease deed was executed and registered in favor of lessee vide regd. No1721900263 on dated 27.05.2019. As per the supplementary lease deed, the validity of the lease period is now extended up to 01.07.2041. Subsequently, the state government has allowed to work within the ML area and accordingly, mining operation has been started since 22.08.2019.
6. Modification of review of the mining plan is approved by Indian Bureau of Mines, Bhubaneswar vide letter no MSM/FM-10/ORI/BHU/2019-20 dated 20.09.2019.
7. Out of the 67.586ha of mining lease area, forest land under DLC category is 66.671ha and 0.915ha is non-forest land. Ministry of environment and forest, Govt. of India has accorded the stage-II (final stage) forest clearance over an area of 66.671ha vide letter no 8-37/2007-FC dated 22.10.2014.
8. Environment Clearance for the project has been obtained for the production capacity of 0.864MTPA vide letter No J-11015/380/2006-IA.II dated 02.07.2008
9. The lessee has obtained the consent to establish under section 25/26 of the water (PCP) act 1974 and under section 21 of air (PCP) act 1981 for the production capacity of 0.864 MTPA vide the letter no 1764/IND-NOC-3700 dated 31.01.2006.
10. The lessee has obtained the consent to operate under section 25/26 of the water (PCP) act 1974 and under section 21 of air (PCP) act 1981 for the production capacity of 0.864MTPA vide the letter no 2610/IND-I-CON-2572 dated 14.03.2019 and valid up to 31.03.2020.
11. The mining lease area is approachable from Koira town (8 km) by Bhadrasahi – Rourkela NH–215. And from Tensa town ship which is on NH – 215 at a distance of 2 km. Nearest Rail is Barsuan Railway station located at 17 km. District Headquarters is at Sundargarh – 110 km from lease area.
12. The nearest water bodies are Sarkunda Nala- 4.2 km, Kuradhi Nadi- 8km and Karo Nala - 3km respectively. There is no reserve forest in the core zone. However, the reserve forests found in the buffer zone are as follows - Sarkunda R.F - 2.5 Km (South), Tohra R.F - 3.3km (South), Karo R.F - 9.5km (North-east), Kathmal R.F - 8.2km (East).
13. The topography of mining lease area is hilly terrain with maximum elevation of the area is 840m AMSL at NW part of the area whereas the lowest elevation is 630m AMSL at eastern part.
14. The total geological and mineral reserve of iron ore is estimated to be 40.882 MT and 28.387 MT. Proposed production during the plan period is 4980210 MT. The life of mines is 10 years. Open cast fully mechanized method category 'A' (FM) will be used for mining.
15. The Water Requirement is 220KLD and Source is Ground Water. The Existing water requirement is 64.5KLD for which NOC has been obtained.
16. The Power Requirement is about 300KVA and the source is from WESCO.
17. The total man power is 400 Persons (Directly Including Processing and Logistic Persons).
18. The cost of Project is Rs. 80 Crore.

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19. The baseline data had been collected from 01st March 2019 to 31st May 2019 as per the stipulated guidelines of MoEF&CC by Kalyani Laboratories, Bhubaneswar.
20. The Environment Consultant **M/s Global Tech Enviro Experts Pvt. Ltd. Bhubaneswar** along with the proponent made a detailed presentation on the proposal before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant on behalf of the project proponent, the SEAC decided to take decision on the proposal after the proponent submits the following information/ documents:

- a) The production details of the mine (year wise) from the inception of the mine till date duly authenticated by the Steel and Mines Department, Govt. of Odisha.
- b) Copy of the documents in support of the fact that the proponent is the rightful lessee of the mine should be given.
- c) Since, the proponent has already paid penalty for excess production without Environmental Clearance as per demand raised by the Govt. The proponent has to justify why this case will not be treated as violation case. Submission of write-up regarding violation details.
- d) Date of Environmental Clearance application. Supporting documents that the proposal has been applied in violation category in violation portal of MoEF&CC, Govt. of India within the due date if the case is a violation case.
- e) Submission of certified reports for baseline data collection by NABL consultant.
- f) Reduce the water usage and submission of modified water balance.
- g) Any litigation pending due to mining lease if so, details to be submitted.
- h) Detailed land use breakup (type of land) and status of forest clearance with supporting documents.

ITEM NO. 5

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR ALANDA – KUKUDA LIMESTONE & DOLOMITE MINES FOR PRODUCTION OF LIMESTONE OF CAPACITY 252558 M³ AND DOLOMITE OF CAPACITY 51729 M³ OVER MINING LEASE AREA OF 45.555 HA AT VILLAGE – ALANDA & KUKUDA, DIST-SUNDARGARH OF M/S B. D. PATNAIK MINERALS PVT. LTD – REGARDING SUBMISSION UNDER VIOLATION CASE (TOR).

1. The mining lease area is spreading over an area of 45.555 ha. The proposed project is to extract limestone from the existing mining lease area. The project is proposed by M/s. B.D.Pattnaik Minerals Pvt. Ltd.
2. Location of the mine is at Village- Alanda & Kukuda, Subdivision-Rajgangpur, District-Sundergarh, State- Odisha. The Site Coordinates is Latitude: 22°15'32.2"N to 22°15'53.3"N and Longitude : 84°33'19.2"E to 85°33' 56.2" E.
3. The lease was executed for the first term on 17-01-1975 in favor of M/s B.D. Patnaik for 20 years.
4. As the lease had to be expired on 16-01-1995, first renewal of mining lease application was filled by lessee which was granted in favor of M/s B.D. Patnaik by the state government of Odisha vide order No-7977/ dated on 16-08-1996 for a period of another 20 years.

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5. The lease was executed for the second term on 08-11-1996 in favor of M/s B.D. Patnaik for 20 years which is w.e.f. 17-0-1995. Meanwhile lease was transferred on 25-07-2000 to M/s B.D.Patnaik Minerals Pvt. Ltd
6. At the time of renewal of lease, mining plan along with mine closure plan was prepared under rule 22 of MCR1960 and approved by IBM Culcutta vide letter no -CAL/SG/L.st/MP-337 dated 24-04-1994. The period of approved mining plan was expired on 31-03-1999.
7. The first scheme of mining was approved by IBM Culcutta vide letter no-BBS/SG/Lst.&Dol/MS-98 dated 27-05-2005.
8. The second scheme of mining was prepared under rule 12 of MCDR 1988 for the period of 2008-09 to 2012-13 and was approved vide letter no. MS/OTF.MECH/20-ORI/2010-11 dated 09-08-2010.
9. Lessee has applied for ToR to MoEF&CC, Govt. of India and ToR was granted vide letter no. J-11015/906/2007-IA.II (M) dated 25.06.2008. But further process for EC was not completed during the stipulated time and period of ToR was lapsed.
10. Two violation letters were issued from IBM under violation of Rule 45(i) (c) of MCDR,1988 on 30th March and 10th June in 2009.
11. The mine was temporarily closed from 07-11-2009 on the basis of letter issued by the DDM, Rourkela Circle vide letter No.14247 (8) dated 07-11-2009 for want of Environmental Clearance.
12. Then a scheme of mining was prepared for rest two years i.e. 2013-14 and 2014-15 (up to 16-01-2015). The said scheme was approved by IBM, Bhubaneswar vide letter No. MS/OTFM/62-ORI/ BHU/ 2012-2013, dated 19-09-2013. The approved scheme was co-terminus with the lease. So the validity of scheme was up to 16-01-2015
13. Second term of lease was expired on 16-01-2015, so lessee has applied for renewal lease for the third term on dt. 09-01-2014 for another 20 years (17-01-2015 to 16-01-2024).
14. Presently as per the MMDR Amendment Act 2015 the lease validity is deemed for 50 years from date of initial grant i.e. from 17.01.1975 to 16.01.2024.
15. In consideration with the increased demand of Limestone and Dolomite and direction of DDM, Rourkela for obtaining Environmental Clearance, Lessee has applied for ToR to SEIAA/SEAC, Bhubaneswar on 12.01.2013. The proposal was considered for Terms of Reference on 16th March'2013. Accordingly the ToR letter was issued on 22nd August'2013. To Comply the ToR, Base line Study was carried out during Dec'2013 to Feb'2014 (3 Months) i.e. in winter season.
16. Public Hearing was conducted on 19th December'2014 at Jaldih Primary School under Kukuda GP under the Supervision of ADM, Sundergarh and RO-SPCB, Rourkela.
17. Incorporating Public Hearing Proceeding, the Final EIA / EMP report along with Questionnaires was submitted to SEIAA, Odisha on 27th March'2015 for final Appraisal. Not processed due to various reasons like – NGT order on not to use violation circulars & O.M. in the present form, time taken in new formation of SEIAA/SEAC, Odisha etc.
18. Meanwhile as per Violation notification date 14.03.2017, this violation application was filed at MoEF&CC, New Delhi in compliance as Category – A.
19. The application was still pending at MoEF&CC, Govt. of India when the violation notification was revised on 08.03.2018, 15.03.2018 and 16.03.2018. The lessee in compliance to the same re-applied to SEIAA/SEAC, Odisha vide online application dated 12/09/2018 with proposal no. SIA/OR/MIN/28969/2018 as Category – B.
20. The consultant M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar along with the project proponent made a detailed presentation before the SEAC on the proposal.

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21. The SEAC on its meeting held on 13.12.2017 decided to take decision on the proposal after the proponent submits the following information/ documents:
- (i) The production details of the mine (separately for limestone and dolomite) from the inception of the mine till the date of closure duly authenticated by the Steel & Mines Department, Govt. of Odisha.
 - (ii) Copy of the documents in support of the fact that the Proponent is the rightful lessee of the mine should be given.
 - (iii) Consent to Operate status (copy of the CTO order if any) of the mine from the State Pollution Control Board, Odisha.
 - (iv) Details of violation.
 - (v) Supportive documents w.r.t application made in violation portal of MoEF&CC, Govt. of India within the due date and same has been transferred to SEIAA, Odisha.
 - (vi) Mining activity has been touched the ground water table. Permission status of the CGWA.
 - (vii) Land schedule and kissam of land.
22. Now the project proponent had furnished compliances as desired by the committee which are verified also.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
(i)	The production details of the mine (separately for limestone and dolomite) from the inception of the mine till the date of closure duly authenticated by the steel & Mines Department, Govt of Odisha.	Statement of production till the date of closure duly authenticated by Directorate of Mines, Steel & Mines Department, Govt of Odisha is enclosed as Annexure 1 .
(ii)	Copy of the documents in support of the fact that the proponent is the rightful lessee of the mine should be given.	The said lease was first granted on 17.01.1975 for the period of 20 years and the first renewal was granted in 16.08.1996 for a period of another 20 years in favor of M/s B. D. Patnaik. In the meantime the lease was transferred from M/s B. D. Patnaik to M/s B.D. Patnaik Minerals (P) Ltd. Second renewal application has also been submitted (Copy attached as Annexure – 2A). But, as per the Mines & Minerals (Development & Regulation) Amendment Act 2015, the executed mining lease is now deemed to have been extended for a period of fifty years i.e. up to 17.01.2025. And accordingly the surface rent and dead rent has been deposited to Steel and Mines Department. (Copy enclosed as Annexure – 2B).
(iii)	Consent to operate status (copy of the CTO order if any) of the mine from the State pollution Control Board, Odisha.	We had applied CTO on 07.06.2007 and deposited consent fees for 5 yrs i.e. 2007-08 to 2012-13. And also obtained CTO for 2007-08 and 2009-10. Again we have deposited the pollution charge as calculated by SPCB, Odisha for operating the mines without consent of the Board for rest financial years. Documents in this regard are enclosed as Annexure – 3 .
(iv)	Details of violation	We had started the work onsite without prior Environmental Clearance under EIA notification, 2006. On 07.11.2009, DDM Rourkela noticed as illegal mining and issued a letter to Obtain statutory clearances for continuation of mining operation. Letter is enclosed as Annexure – 4A . Accordingly the case was filed under Section 15 of Environmental (Protection) Act, 1986 (Copy enclosed as Annexure - 4B).

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(v)	Supportive documents w.r.t application made in violation portal of MoEF & CC, Govt. of India within the due date and same has been transferred to SEIAA, Odisha.	As per the provision of S.O. 804 (E) dated 14.03.2017, The projects or activities which are in violation as on date of this notification only will be eligible to apply for environmental clearance under this notification and the project proponents can apply for environmental clearance under this notification only within six months from the date of this notification. (i.e. from 14.03.2017 to 13.09.2017). And the time line of the project shows that this application was submitted on 05.07.2017 , when the violation portal was active. Supportive documents in this regard are enclosed as Annexure - 5 .
(vi)	Mining activities has been touched the ground water table. Permission status of the CGWA.	As per the approved mining plan, mining is planned up to 186 mRL below ground level during the last year of the plan period. And the RL of water table of the area is minimum 180m to maximum 175 mRL, which is still 6 m below during the conceptual mining period. So, there is no intersection of ground water table during plan period. A supportive paper in this regard is enclosed as Annexure – 6 . However, there is a seasonal nala passing adjacent to the north boundary flowing from west to east direction, which controls the entire drainage system of the area. So, embankment has been constructed between quarry and nala. But, during rain, parts of surface runoff water enter into the quarry through percolation. That's way quarries are water logged during rainy season.
(vii)	Land schedule and kissam of land.	Land schedule and Kissam of the total lease area is enclosed as Annexure – 7 .

23. The SEAC on its meeting held on Dt: 10-07-2019 observed that most of the members in the SEAC are new and not aware about the project. Hence asked the proponent to make a presentation on compliance furnished for consideration of their proposal on Dt: 08-11-2019.

24. The proponent along with the consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Patia, Bhubaneswar, Odisha** made a detailed presentation before the SEAC, Odisha.

The SEAC after detailed presentation by the project proponent along with consultant noted that the proponent has gone for production of limestone and dolomite without prior Environmental Clearance under EIA Notification, 2006. The SEAC, after detailed deliberations on the proposal in terms of the provisions of the MoEF&CC, Govt. of India Notification dated 14th March, 2017, confirmed the case to be of violation of the EIA Notification, 2006 and **recommended for issuing Standard Term of Reference as per Annexure- A along with the following specific Term of Reference** for undertaking EIA and preparation of Environmental Management Plan (EMP):

- (i) The State Government to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act, 1986, and further no Consent to Operate to be issued till the project is granted Environmental Clearance.
- (ii) The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of Environmental Clearance. The quantum shall be recommended by the SEAC and finalized by the regulatory authority i.e. SEIAA, Odisha. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the SEAC and approval of the regulatory authority i.e. SEIAA, Odisha.
- (iii) Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or

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environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.

- (iv) Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
- (v) The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter in the EIA report by the accredited consultants.
- (vi) Public hearing has already been conducted for the proposal earlier on 19th December 2014, a copy of which is also furnished with EIA/EMP. For this reason, conducting a fresh Public Hearing has been exempted.
- (vii) One season fresh base line data to be generated for EIA/EMP preparation.
- (viii) To submit the lease sketch approved by DMG, at the time of presentation before SEAC.
- (ix) Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report.
- (x) Detailed hydrological study to be carried out in core and buffer zone of the project as per the recent GEC guidelines 2015.
- (xi) Approved mining plan is to be submitted.
- (xii) Recent compliance report from the regional office of MoEF&CC, Govt. of India, Bhubaneswar for the existing Environmental Clearance, if any



Sri. B. P. Singh
Chairman, SEAC



Dr. D. Swain
Member, SEAC

Prof. (Dr.) P.K. Mohanty
Member, SEAC

Sri. K. R. Acharya
Member, SEAC



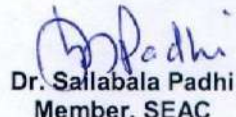
Sri. J. K. Mahapatra
Member, SEAC



Dr. K.C.S Panigrahi
Member, SEAC



Prof. (Dr.) B.K. Satpathy
Member, SEAC



Dr. Sallabala Padhi
Member, SEAC

Approved



Chairman, SEAC

STANDARD TERMS OF REFERENCE (ToR) FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT FOR ALANDA – KUKUDA LIMESTONE & DOLOMITE MINES OF M/S B. D. PATNAIK MINERALS PVT. LTD.

1. The ToR will not be operational till such time the Project Proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors .
2. Department of Mining & Geology, State Government shall ensure that mining operation shall not commence till the entire compensation levied, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
3. Year-wise production details since 1993-94 should be given, clearly stating the highest production achieved in any one year prior to 1993-94. 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. The production details need to submit since inception of mine duly authenticated by Department of Mines & Geology, State Government.
4. A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
5. All documents including approved mine plan, EIA and Public Hearing (conducted on 19.12.2014) 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.
6. Certificate from Mining Officer that mining pits which are existing within lease area have been done illegally prior to sanction of lease in favour of lessee.
7. 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).
8. 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.
9. 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.
10. 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.

11. Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. 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.
18. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
19. 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.
20. 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.
21. 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,

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clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with 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.

22. 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.
23. 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).
24. 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.
25. 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.
26. Air quality modelling 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.
27. 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.
28. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.

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29. 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.
30. 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.
31. 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.
32. 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.
33. 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.
34. 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.
35. 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.
36. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
37. 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.
38. 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.
39. 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.

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40. 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.
41. 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.
42. Public Hearing (conducted on 19.12.2014) 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.
43. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
44. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
45. A Disaster Management Plan shall be prepared and included in the EIA/EMP Report.
46. 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.
47. The activities and budget earmarked for Corporate Environmental Responsibility (CER) shall be as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 and the action plan on the activities proposed under CER shall be submitted at the time of appraisal of the project included in the EIA/EMP Report.
48. The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25.10.2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.
49. Compliance of the Ministry's Office Memorandum No. F: 3-50/2017-IA.III (Pt.), dated 30.05.2018 on the judgment of Hon'ble Supreme Court, dated the 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India needs to be submitted and included in the EIA/EMP Report.
50. Mitigation measures as per the Ministry's OM no Z-11013/57/2014-IA.II(M) dated 29.10.2014-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.
51. 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&CC 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) The consultants involved in the preparation of EIA/EMP report should be an accredited with Quality Council of India (QCI) / National Accreditation Board of Education and Training (NABET) and a certificate in this regard should be annexed in the EIA/EMP reports. Data provided by other organization/Laboratories including their status of approvals etc. should be specified. The consultant, while presenting the project should be equipped with relevant data and information relating to the project and make a qualitative presentation.
 - h) 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.
 - i) 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.
 - j) 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
52. **The prescribed ToR would be valid for a period of three years for submission of the EIA/EMP report, as per the O.M. No. J-11013/41/2006-IA.II (I) (Part) dated 29.08.2017.**