

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

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**SUMMARY RECORD OF 30<sup>th</sup> MEETING OF THE RECONSTITUTED COMMITTEE OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF NON-COAL MINING PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.**

The 30<sup>th</sup> 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 **April 23-24, 2018**. The list of participants is annexed. After welcoming the Committee Members, discussion on each of the Agenda Items was taken up ad-seriatim.

**Dated: 23<sup>rd</sup> April, 2018 (Monday)**

**(1.1) Deliberation & Circulation on the Minutes of the 29<sup>th</sup> EAC Meeting:**

The Minutes of the 29<sup>th</sup> Meeting of EAC held during March 22-23, 2018 were circulated to the members of the Committee. The members made brief deliberations on the proposals placed in the last meeting and approved the same.

**(1.2) Submission of Lease Plan/KML File**

The Committee observed that KML file submitted by the Project Proponent during the presentation of Term of Reference sometimes differs from the actual lease boundary or not aligned properly. Thus, **the Committee was of the view that at the time of submission of proposal for ToR the Project Proponent/Consultant should submit the lease plan duly authenticated by the agency which is issuing the letter of intent (LoI)/ Mining lease deed. This lease plan should show all the boundary pillars and its coordinates viz. Latitude & Longitude.**

**(1.2) Finalization of Standard EC conditions for Non-coal mining sector projects**

The Member Secretary informed the Committee that standardization of EC conditions for Non-Coal Mining sector was earlier considered in the EAC Meeting held during 18-19 January, 2018 and as suggested by EAC comments of Regional Office was sought. Further, as no suggestions were received from Regional Office a comparative of Standard EC Conditions is now prepared and placed before the Committee. The Committee was of the view that

Comparative of Standard EC Conditions shall be circulated to all Committee Members, through email, for their comments. The IA Division after incorporating the comments of the Committee members shall place the revised draft of Standard EC Conditions in next EAC Meeting.

**(1.3) Visit of different Mines by the Committee Members and officials of IA Non Coal Division, MoEFCC.**

The Committee was of the view that the Committee Members and Officials of IA Non-Coal Mining Division should visit the various mines in the Country to see the best practices adopted by various companies. The purpose of such visits should be only for learning and knowledge sharing.

**Consideration of EC/TOR Proposals**

**(2.1). Dalpahar Iron and Manganese Ore Mines of Shri Avin Jain with proposed production capacity of Iron Ore @ 0.31 Million TPA (ROM) and Manganese ore @ 0.094 Million TPA (ROM), located at Baitarani R.F., Tehsil- Barbil, District-Keonjhar, Odisha (MLA 101.171 ha) (F. No. J-11015/844/2007-IA.II (M); Proposal No. IA/OR/MIN/73371/2007) (Consultant: M/s VISIONTEK CONSULTANCY SERVICES PVT. LTD)-Consideration of Environmental Clearance**

The proposal of Sri Avin Jain is for Dalpahar Iron and Manganese Ore Mines of Shri Avin Jain with proposed production capacity of Iron Ore @ 0.31 Million TPA (ROM) and Manganese ore @ 0.094 Million TPA (ROM) in the mine lease area of 101.171ha. The mine lease area is located at Baitarani R.F., Tehsil- Barbil, District-Keonjhar, Odisha.

The Proposal of EC was earlier considered by the EAC in its meeting held during June 20-22, 2012 wherein the Committee recommended the project for environmental clearance subject to following conditions (i) The company shall provide potable water to the inhabitants living up to 5 km from the mine lease, where municipal supply is not available; (ii) As part of post project monitoring, analysis of water samples (surface and groundwater) shall be carried out on regular basis and records maintained; (iii) Plantations shall be carried out in the earmarked areas including safety zone by selecting local species in consultation with the State Forest Department. At least 1,000 trees per year shall be planted; and (iv) A plan for conservation of fauna reported in the study area shall be prepared and implemented in consultation with the State Forest and Wildlife Departments.

The total mine lease area is 101.171 ha, which is forestland. Forestry clearance for 16.464 ha was earlier obtained in 2005; however, the proponent had applied for forestry clearance over an area of 96.071 ha. The PP has informed that the FC for entire area will be submitted once received. Accordingly the proposal was kept on hold and even after six years, FC for complete area is not available. Further, the proposal was kept on hold due to

carrying capacity study. Now the carrying capacity study report was received and accordingly the proposal is considered in this meeting.

### **Details of Project as per minutes of EAC held during June 20-22, 2012**

The proposal is for renewal of mine lease which fell due in 2006 for production of 0.31 million TPA of iron ore and 0.094 million TPA of manganese ore. The Ministry has issued ToR vide letter no. No. J-11015/844/2007-IA. II(M) dated 23<sup>rd</sup> September 2008. The mine is reported to be closed since December, 1995. Public hearing has been held on 26.8.2011. The mine lease area is 101.171 ha, which is forestland. Forestry clearance for 16.464 ha was earlier obtained in 2005, however, the proponent have now applied for forestry clearance over an area of 96.071 ha. Mine working will be opencast involving drilling and blasting. Life of mine is 7 years for iron ore and 32 years for manganese ore. Ultimate working depth will be 527.87 m AMSL. Groundwater table is at 490 m AMSL. Mine working will not intersect groundwater table. No National Park / Sanctuary is reported within 10 km of the mine lease. An area of 13.12 ha has been earmarked for dumping of over burden. It was, however, stated that at the conceptual stage there will be no dump. The baseline AAQ data showed the levels within permissible limit. It was, however, observed that the groundwater quality showed higher levels of iron content. The water requirement is estimated as 66 kld, which will be obtained from groundwater. The issues raised during public hearing were also considered and discussed during the meeting, which inter-alia included plantation to be undertaken, peripheral development including provision of drinking water, health care, education and road improvement. It was reported that there is no court case pending against the project.

### **Details of deliberation held during April 23-24, 2018**

Project Proponent informed that Dalpahar Iron & Manganese Mine of Late D C Jain (power of attorney Sri Avin Jain) was originally granted in 1984 executed on 09.06.1986 for a period of 20 years. As per the section 8A (3) of MMDR (Amendment) Act, 2015 the lease is deemed to be extended up to 08.06.2036. However, the State Government of Odisha has not issued any order/letter w.r.t. validity and veracity of the lease. **The Committee deliberated the issues and advised the PP to get the validity and veracity of the mine lease form the Govt. of Odisha before further consideration of the proposal.**

Project Proponent informed that the mine lease area is 101.171 ha, which is a forestland. Forest clearance over 16.464 ha was earlier obtained from MoEF vide letter F. No. 8-103/2003-FC dated 14.11.2005, However, the Forest Diversion proposal over 101.171 ha including already diverted area of 16.464 Ha is submitted, which is under process. PP also quoted the circular/guideline of MoEF&CC, Govt. of India vide No. 11-51/2015-FC, dated 01.04.2015, it is mentioned that the validity of approvals accorded under Section-2 of the FC Act shall be extended and shall be deemed to have been extended up to a period co-terminus with the period of mining lease in accordance with

the provision of the MMDR Act, 1957, as amended subject to payment of Net Present Value (NPV). The NPV of entire forest land in the mining lease paid. The forest clearance already awarded over an area of 16.464 Ha is extended up to 08.06.2036 making co-terminus with validity of the lease period. **The Committee deliberated the issues and advised the PP to get the clarification with regard to updated status of forest clearance and deposition of NPV etc. before further consideration of the proposal.**

The Committee, after detailed deliberations, **deferred** the proposal and is of the view that first PP to submit the following requisite information and afterwards the proposal w.r.t. old baseline data & public hearing etc. may be discussed.

- i) PP reported that lease was lapsed in 2006. A letter from the State Government of Odisha may be provided w.r.t. validity and veracity of the mine lease;
- ii) Project Proponent shall submit the validity and veracity of the Forest clearance dated 01.04.2015 from the FC Division of the Ministry and status of deposition of NPV etc.;
- iii) PP informed that Scheme of mining has not submitted to IBM after 2017 i.e. PP has not valid mine plan/mining scheme; PP needs to submit the valid mine plan/mining scheme; and
- iv) Project Proponent shall submit the updated status of forest clearance.

**(2.2). Mining of Decorative Stone (Minor Mineral) with enhancement of production capacity from 2,115 m<sup>3</sup> per Annum to 30,000 m<sup>3</sup> per Annum by M/s New Laxmi Granites, located at village Parsurampur, District Gajapati, Odisha (MLA: 49.922ha) (F.No.J-11015/389/2013-IA-II (M); Proposal No. IA/OR/MIN/20320/2013) (Consultant: M/s Globaltech Enviro Experts Pvt. Ltd.) -Consideration of Environmental Clearance**

The proposal of M/s New Laxmi Granites is for mining of Decorative Stone (Minor Mineral) with enhancement of production capacity from 2,115 m<sup>3</sup> per Annum to 30,000 m<sup>3</sup> per Annum over an area of 49.922 ha. The mine is located at village Parsurampur, District Gajapati, Odisha. It is bounded by the Latitude 18<sup>0</sup> 47'48" to 18<sup>0</sup> 48' 05" N and Longitude 84<sup>0</sup>06' 07" to 84<sup>0</sup> 06' 32" E on the Survey of India Toposheet No. 74 B/1 (old) and E45G1 (New).

The proposal for ToR was earlier considered by the EAC in its meeting held during November 20-22, 2013 as a Category 'A' Project wherein the Committee recommended the ToR. The Ministry has issued ToR vide letter no. J-11015/389/2013-IA. II (M), dated 22<sup>nd</sup> January, 2014. PP has submitted the EIA/EMP Report online to the Ministry for seeking Environmental Clearance after conducting Public Hearing.

The Committee noted that as the proposal is for mining of minor mineral and there are other mines located within 500 m; therefore PP needs to submit the details of other lease to ascertain the category of the project (viz. cluster certificate from the State Govt. of Mines and Geology) and submit the proposal as per the provision of the amendments of the EIA Notification 2006 dated 15.01.2016.

PP reported that the lease was executed on 24.03.2005 for mining of decorative stone and registered on 30.03.2005 for a period of twenty (20) years in favour of M/s New Laxmi Granites. The tenure of the lease period is scheduled to expire on 30.03.2025. For the purpose of grant / execution of the mining lease, the mining plan was prepared under rule 16 of GCDR, 1999 and it was approved on 14.01.2005 by the Directorate of Mines, Odisha, Bhubaneswar. Subsequently, mining operation was commenced on 07.04.2005 by the Lessee. PP has enhanced the production capacity of decorative stone from the base year of 2006-07 without obtaining prior environmental clearance under the provision of the EIA Notification 2006. PP cited that production capacity was well within the consent to operate and they have not obtained environmental clearance under the provision of the EIA Notification 2006.

In view of the above, EAC mentioned that **this is a case of violation as PP had not taken EC under the provisions of the EIA Notification 2006 and the instant proposal may be rejected and appraised as per the provisions of the violation Notification issued by the MoEF&CC vide S.O. 804 (E) dated 14<sup>th</sup> March 2017**; afterwards PP needs to submit the proposal as per the provision of the amendments of the EIA Notification 2006 dated 15.01.2016.

**(2.3). Got Manglod Gypsum Mine with enhancement of production capacity from 3.5 Lakhs TPA to 7.0 Lakhs TPA of Gypsum by M/s Rajasthan State Mines Minerals Limited, located near Village-Got & Manglod, Tehsil -Jayal, District -Nagaur, Rajasthan (MLA 870.74 ha) (F. No. J-11015/63/2014-IA.II (M); Proposal No. IA/RJ/MIN/22811/2014 (Consultant: M/s Mantec Consultants Pvt. Ltd.) -Consideration of Environmental Clearance**

The proposal of M/s Rajasthan State Mines Minerals Limited is for Got Manglod Gypsum Mine with enhancement of production capacity from 3.5 Lakhs TPA to 7.0 Lakhs TPA of Gypsum in the mine lease area of 870.74ha. The mining lease is located near village Got Manglod, Tehsil - Jayal, District – Nagaur, Rajasthan. The latitudes and longitudes of the site are 27°13'22.3"N to 27°14'58.9"N, 74°3'23.6"E to 74°5'11.7"E respectively and falls within the Survey of India Topo sheet No. 45 I/3 & 4.

The proposal for ToR was earlier considered by the EAC in its meeting held during March 20-21, 2014 wherein the Committee recommended the ToR. The Ministry has issued ToR vide letter no. J-11015/63/2014-IA.II (M), dated 07.05.2014. PP has submitted the EIA/EMP Report online to the Ministry for seeking Environmental Clearance after conducting Public Hearing.

The total mining lease area is 870.74 ha out of which 670.74 ha land belongs to private khatedars, 2.78 ha waste land, 169 ha grazing land and the rest 28.22 ha is of road and temple area. No forest land is involved. The mining lease was renewed in favour of RSMML by the Mines Department, Government of Rajasthan, vide order NO.P.15(16)Khan/Group-1/2000, dated 13.07.2009, for a period of 20 years with effect from 30.06.2000. The validity of mining lease extended up to 31.03.2025 vide Mining Engineer, Department of Mines & Geology, Nagaur letter dated 24.03.2017. Scheme of mining was approved for 2012-13 to 2017-18. PP reported that Scheme of Mining for 2018-19 to 2022-23 has been submitted for 7 Lakhs TPA to the Department of Mines and Geology on 29.01.2018. **However the Scheme of mining has not approved yet. Committee is of the view that PP needs to submit the approved mining scheme for 7 lakhs TPA.**

The Committee noted that the Ministry has granted the Environment Clearance No. J-11015/706/2007-IA. II (M), dated 28.05.2008 for 3.5 lakh TPA gypsum production for Got Manglod Gypsum Mines. The existing consent to operate from Rajasthan State Pollution Control Board, Jaipur for mines is valid up 31.05.2019 with gypsum production capacity 3.5 Lakh TPA. Regional Office of MoEFCC, Lucknow vide letter dated 27.03.2017 has submitted the compliance report of earlier EC conditions. The Committee deliberated the compliance of earlier EC.

The PP reported that the mine is in operation prior to EIA notification 1994 and the production at mines increased after notification dated 27-01-1994 as compared to highest annual production that is bench mark before 1994-95. PP reported that gypsum production during the financial year 1993-94 was 164890 MT whereas the production of gypsum during the years after EIA Notification 27.01.1994 i.e. financial year 1996-97 was 174350 MT, financial year 1999-2000 was 170465.40 MT and financial year 2003-04 was 232432.78 MT. PP reported that the Mine was not operated after circular dated 28.10.2004 and resumed mining operation after obtaining Environment Clearance under EIA notification 2006 on 28.05.2008. **The Committee deliberated the issues and is of the view that PP needs to submit the production details duly authenticated by the State Mines and Geology and CTE/CTO since inception of mine to ascertain violation, if any.**

PP reported that method of mining being mechanized opencast method to produce gypsum using heavy earth moving machinery like hydraulic shovel but without drilling and blasting. Tractor /Truck Mounted water tanker are being used for dust suppression on mine haul road, mineral excavation/loading point, near weighbridge, site office etc. The total in situ geological and mineable reserves available at mines as on 01.04.2017 is 53.03 Lakh MT and 39.77 Lakh MT respectively. Therefore, the tentative life of mines based on present geological resources of gypsum with proposed enhanced gypsum production capacity 7 lakh TPA may be 8 -10 years subject to actual production from the mines and actual recovery from geological resources. The present validity of mining lease is upto 31.03.2025 and therefore, the proposed operational life of Got Manglod Gypsum mines with enhanced production capacity of 7 Lakh TPA may be considered up to 31.03.2025 (validity of existing

mining lease). PP reported that as per existing system, the private land is being returned to the owner with adequate compensation @Rs 70 per metric ton on gypsum production basis with backfilling and leveling so that the owner can start agriculture activities soon after the mining and reclamation.

PP reported that there is no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, and Tiger/Elephant Reserves located within the radius of 10 km of the mine lease area. DFO vide letter dated 10.03.2016 has authenticated the list of flora and fauna. Conservation Plan for Schedule I species namely Pea fowl has been prepared in consultation with DCF, Nagaur and the same was submitted to DCF by RSML vide letter dated 17.04.2018 for approval of CWLW. Mines and Geology Department vide letter dated 05.04.2018 has submitted the District Survey Report for gypsum. The Committee deliberated the conservation plan and DSR.

The Primary baseline data for specific micro-meteorology data, ambient air quality, waste quality, noise level, soil and flora & fauna has been collected during Post Monsoon season i.e. October to December, 2014. The monitoring results of ambient air, surface water, soil, ambient noise and ground water for the month of December 2017 have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples. The Committee deliberated the baseline data.

The Public hearing was conducted on 10.09.2015 under the Chairmanship of Addl. District Collector, Didwana, Dist Nagaur, Regional Officer of Rajasthan SPCB; Ajmer was also present during the Public Hearing. The issues raised during Public Hearing were discussed by the Committee. PP reported that no Litigation/Court case is pending against this project. PP reported that one community centre and meeting hall have been constructed under CSR activities and after public hearing, Gram Panchayat, Manglod has requested for construction of laboratory at Government Senior Higher Secondary School with estimated cost of Rs. 7.50 lakhs and construction of toilets, kitchen and repairing of Government Primary School with estimated cost of Rs. 7.50 lakhs. District Collector Nagaur has recommended both the work and these works may be executed by PP. PP reported that no Litigation/Court case is pending against this project.

The Committee, after detailed deliberations, **deferred** the proposal and sought the following requisite information:-

- (i). PP reported that Scheme of Mining for 2018-19 to 2022-23 has been submitted for 7 Lakhs TPA to the Department of Mines and Geology on 29.01.2018. However the Scheme of mining has not approved yet. Committee is of the view that PP needs to submit the approved mining scheme for 7 lakhs TPA.
- (ii). PP needs to submit the production details duly authenticated by the State Mines and Geology and CTE/CTO since inception of mine to ascertain violation, if any.

- (iii). PP needs to submit the detailed Green Belt Development plan on periphery of the lease along with type of plantation etc.; PP needs to plant the edible species in an around the mine lease area in consultation with villagers; PP needs to revise the conservation plan w.r.t. revised plantation.
- (iv). The DFO vide letter dated 02.02.1990 mentioned that the lease area does not have forest land. The Committee noted that the letter is very old and PP needs to submit the fresh letter mentioning the involvement of forest land, if any, in the MLA; and
- (v). Project Proponent has provided the cost of project and EMP cost per tonne basis. The Committee is of the view that PP needs to submit the detail compliance of TOR 39 w.r.t. Project cost & EMP cost.

**(2.4). Limestone Mine of M/s Marwar Cement Limited with proposed production capacity of 1.0 MTPA, located at Near Villages- Ghorawat, Borunda & Pundlu, Tehsil – Pipar City (earlier Bhopalgarh) & Merta City, District- Jodhpur & Nagaur, Rajasthan (MLA 195.70ha) (F. No. J-11015/140/2016.IA.II (M); Proposal No. IA/RJ/MIN/51457/2016) (Consultant: M/s JM Environet Pvt. Ltd)-Consideration of Environmental Clearance**

The proposal of M/s Marwar Cement Ltd. is for Limestone Mine with production capacity 1.0 million TPA in the mine lease area of 195.70ha. The mine lease is located Near Villages- Ghorawat and Borunda, Tehsil Pipar City (Earlier Bhopalgarh), District- Jodhpur and Village Pundlu, Tehsil Merta, District Nagaur, Rajasthan. The mine lease area falls between Latitude of 26° 29' 56.15" N to 26° 30' 53.58" N and Longitude of 73° 46' 35.85" E to 73° 47' 56" E. The mine lease area is located of Survey of India toposheet no 45F/14 & 45F/15.

The proposal of ToR was earlier considered by the EAC in its meeting held during May 23<sup>rd</sup> -24<sup>th</sup>, 2016 wherein the Committee recommended the 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-11015/140/2016-IA. II (M) dated 13<sup>th</sup> June, 2016. PP has submitted the EIA/EMP Report online to the Ministry for seeking Environmental Clearance after conducting Public Hearing on 17.08.2017 (Jodhpur District) & 24.10.2017 (Nagaur District) as project falls in two Districts.

The total mining lease area is 195.7064 ha. Out of the total lease area, 49.0467 ha is Govt. land and rest 146.6597 ha area is private land. Initially, a Letter of Intent for grant of Limestone mining lease was issued by Department of Mines (Group-2), Government of Rajasthan over an area of 195.7064 ha vide letter No- P.3 (55) KHAN/Group-2/2014 dated 05.12.2014 in the name of M/s Vedanta Industries Limited. Later, letter regarding name change of the company to M/s Marwar Cement Limited in



the LOI has been issued vide letter no. P.3 (55) KHAN/Group-2/2014 dated 25.01.2017. Mining Plan with Progressive Mine Closure Plan has been approved by Indian Bureau of Mines (IBM) vide letter no. 584 (4)(3)(1682)/2017-RCM-AJM, dated 13.04.2017. The limestone production capacity per annum will be 1.0 million TPA. Estimated life of mine will be ~45 years. Total excavation details of first five years are as per below:

S. No.	Year	Total tentative excavation (in tonnes)	Top Soil (in tonnes)	OB/SB/IB (in tonnes)	ROM (in tonnes)		
					Ore	Mineral reject	Total
1.	I Year	124667.2	8467.2	76200	40000	-	40000
2.	II Year	155999.4	9599.4	86400	60000	-	60000
3.	III year	1250421.6	25041.6	225380	1000000	-	1000000
4.	IV Year	1148541.1	14853.6	133687.5	1000000	-	1000000
5.	V Year	1129116.8	12916.8	116250	1000000	-	1000000
	Total	3808746	70878.6	637917.5	3100000	-	3100000

Note: Conversion Factor: CuM \*Bulk Density (2.5) = Tonnes (For OB/IB/SB and Limestone) CuM \*Bulk Density (1.8) = Tonnes (For top soil)

Total excavation will be maximum in third year i.e., 1250421.6 tonnes including 25041.6 tonnes top soil, 225380 tonnes OB/IB/SB and 1,00,0000 tonnes limestone.

PP reported that there is no National Park, Wildlife Sanctuary, and Biosphere Reserve, Wildlife Corridors, Tiger/Elephant Reserves etc. within 10 km radius of the Mine site. Letter for the same along with authenticated location map and list of flora fauna has been obtained from Forest Department vide letter no. F ( ) Tak / DCF/2017/9813 dated 5.10.2017. No forest land falls within the lease area. Letter regarding the same has been obtained from Forest Department, Jodhpur, vide letter no.: F ( ) tak / DCF/ 2017/ 9813 dated 5.10.2017. There are no Reserved & Protected Forests within 10 km radius study area. Two schedule I species noted in study area. Conservation plan for the same has been prepared and submitted to Forest Department vide letter dated 28.12.2017. A letter showing that Area does not fall under Aravali range has been obtained from Government of Rajasthan, Department of Mines & Geology vide letter no. ME/Jodh/CC-II/ML 09 / 2013 / 2017 / 876 dated 28.04.2017.

Method of mining will be opencast mechanized involving drilling and blasting. Drilling will be carried out by hydraulically operated DTH drilling machine. Blasting will be done by using ANFO and high explosives with use of millisecond delay detonators/NONEL, monitoring of each & every blast will be done. The Slope and Blasting study is also proposed during operational phase of mine. Loading of excavated limestone will be done by hydraulic excavators, transportation by dumpers. The blasted limestone from the mine site will be transported to the crusher located at cement plant by heavy duty dumpers. Mining will not intersect ground water table. The waste generation from the mining operation which is proposed to be backfilled in 110.13 ha of mined out area. About 2.196

million m<sup>3</sup> of top soil will be generated till the end of life of mine which will be simultaneously used for plantation. PP reported that out of the total mining lease area i.e. 195.7064 ha, an area of 128.63 ha will be mined at conceptual stage. Out of 128.63 ha area, 110.13 ha area will be reclaimed and backfilled followed by plantation, 10.5 ha area will be converted into water reservoir and 8.0 ha area will be covered by bench plantation. The overall greenbelt development/plantation will be done on 126.61 ha area including 8.48 ha area along 7.5 barrier zone, 110.13 ha on backfilled area and 8.0 ha on bench slope plantation. The trees will be planted @1500 saplings per ha of land.

The primary baseline data for site specific micro meteorology data, ambient air quality, water quality, noise level, soil and flora & fauna was collected during Summer Season (March – May, 2016). The baseline monitoring results of ambient air, surface water, soil, ambient noise level and ground water have been reported and the same were compared with respective prescribed standards viz. NAAQS-2009 (for air monitoring), IS:10500-2012 (for ground water & surface water) and ambient noise limits prescribed by CPCB. concentrations of PM<sub>10</sub> and PM<sub>2.5</sub> for all the 13 AAQM stations were found between 59.3 to 76.3 µg/m<sup>3</sup> and 22.2 to 38.2 µg/m<sup>3</sup> respectively. The concentrations of SO<sub>2</sub> and NO<sub>2</sub> were found to be in range of 5.0 to 9.5 µg/m<sup>3</sup> and 13.0 to 22.5 µg/m<sup>3</sup> respectively. Noise levels vary from 49.2 to 54.3Leq dB(A) during day time and from 38.2 to 43.8Leq dB(A) during night time and are within the respective ambient noise limits. The analysis result for soil shows that soil is neutral to slightly alkaline in nature and soil texture is sandy loam. The impact prediction carried through modeling indicated maximum incremental concentrations w.r.t. PM<sub>10</sub> as 1.2 µg/m<sup>3</sup>. Total water requirement for the project will be 100 KLD out of which drinking water requirement is 10 KLD which will be sourced from cement plant after treatment and remaining quantity of water for dust suppression, greenbelt development etc will be taken from mine sump as & when developed. Total manpower required for this project will be 41 persons including skilled, unskilled and semi-skilled staff.

The project falls in two Districts Namely Jodhpur and Nagaur therefore two Public hearings were held on two different dates in the two Districts. Public hearing in Jodhpur District was conducted on 17.08.2017 at Dadhimati Mata Temple, Village- Borunda, Tehsil Pipar City, District- Jodhpur, Rajasthan. The Public Hearing in Jodhpur District was presided by Shri Mahipal Kumar, Additional District Collector, Jodhpur wherein Regional Officer, RSPCB, Jodhpur, Rajasthan was also present. Public hearing in Nagaur District was conducted on 24.10.2017 at Tehsil office Merta, Tehsil Merta, District Nagaur, Rajasthan. The Public Hearing was presided over by Shri. Kumarpal Gautam, District Collector, Nagaur wherein Regional Officer, RSPCB, Rajasthan was also present. The issues raised during Public Hearing were also considered and discussed during the meeting, which inter-alia, included permanent employment, village development work, impact on water resources, Biodiversity loss, land acquisition and compensation, health issues, Impact due to blasting, Issue related venue of Public Hearing, CSR activities, infrastructure development etc. Budgetary allocation for implementation of commitments made during public hearing has been included in ESC plan. An amount of Rs 42.0

Crores/- has been earmarked towards ESC (including Rs. 50 Lakhs/- for 195.7064 ha mine, Rs. 90 Lakhs for 137.9993 ha mine, Rs. 40 Lakhs for 35.98 ha mine, Rs. 20 Lakhs for 73.33 ha mine and Rs. 40 Crore for cement Plant for five years). PP reported that the Village Development Work like construction of English medium school, temple, 10 bedded Hospital & Road Maintenance etc. will be done in consultation with Gram Panchayat. An amount of Rs. 4.0 Crores/- is earmarked for Construction of School, Rs. 30 Lacs/- for Temple Construction), Rs. 1.5 Crores for Road Maintenance and Rs. 3.0 Crores/- for Hospital Construction. Employment will be provided to per person (direct dependent) per PAF then Priority in employment will be given to villagers as per their eligibility and requirement of company. Skill development programme will be carried out so that locals become eligible for employment. An amount of Rs. 60 Lacs/- has been earmarked for skill development programme.

Total number of Project Affected Families (PAFs) involved in the project is 73, out of which, 49 are land oustees, 8 are homestead oustees and 16 are land + Homestead oustees. Total population residing within lease area in 24 households. MCL will provide the construction cost for new houses @ Rs. 1200 per sq feet. Land for houses for PAFs will be provided in Ghorawat, Borunda & Pundlu Villages with the size of 1.5 times of existing house. Minimum land compensation will be provided as Rs. 9.6 Lacs / ha for Village Ghorawat, Rs. 11.76 lacs for village Pundlu and Rs. 17.76 lacs for Village Borunda. Other than land and house compensation Rs. 1.20 Crore have been earmarked towards need based action plan for the PAFs. Direct employment will be provided to one person per PAF in mine as well as in plant or One-time compensation of an amount of Rs. 10.0 Lacs/- will be provided for person who is eligible but not interested in Job. Beside this, Skill Development Programs will be carry out and Priorities will be given to PAFs for contractual works in the company. 73 No's of TAANKA will be constructed by MCL in study area for Rain water harvesting which will cover all the PAFs. The Committee deliberated the R&R plan.

Total cost of the Project is Rs. 19.0 Crores. PP has earmarked 1.0 Crores towards the capital cost for Environmental Protection Measures and Rs. 7.0 Lacs/annum as a recurring cost for Environmental Protection Measures. Project Proponent reported that there is no court case/litigation is pending against the project.

Examination of Proposal w.r.t. Judgment of Hon'ble Supreme Court, dated 02.08.2017 in the matter of Common Cause Vs Union of India & Ors. (W.P.C. No. 114/2014): 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.

The Committee deliberated the proposal and based on the information submitted by PP, the Committee **recommended** the Proposal for grant of Environmental Clearance for Limestone Mine with production capacity of 1.0 Million TPA.

The Committee also **recommended additional specific conditions** viz. (i)

Project Proponent shall implement the R&R plan with respect to Project Affected Families with special emphasis of Antenatal care, Female hygiene and financial assistance to nearby villages. Total number of Project Affected Families (PAFs) involved in the project is 73, out of which, 49 are land oustees, 8 are homestead oustees and 16 are land + Homestead oustees. Total population residing within lease area in 24 households. Project Proponent shall provide the construction cost for new houses @ Rs. 1200 per sq feet. Land for houses for PAFs will be provided in Ghorawat, Borunda & Pundlu Villages with the size of 1.5 times of existing house. Minimum land compensation will be provided as Rs. 9.6 Lacs / ha for Village Ghorawat, Rs. 11.76 lacs for village Pundlu and Rs. 17.76 lacs for Village Borunda. Other than land and house compensation Rs. 1.20 Crore have been earmarked towards need based action plan for the PAFs. (ii) Project Proponent shall provide direct employment to one person per PAFs in mine as well as in plant or One-time compensation of an amount of Rs. 10.0 Lacs/- will be provided for person who is eligible but not interested in Job. Beside this, Skill Development Programs will be carry out and Priorities will be given to PAFs for contractual works in the company. 73 No's of TAANKA will be constructed by MCL in study area for Rain water harvesting which will cover all the PAFs. (iii) Project Proponent has earmarked Rs 42.0 Crores/- towards Enterprise Social Commitment (ESC) (including Rs. 50 Lakhs/- for 195.7064 ha mine, Rs. 90 Lakhs for 137.9993 ha mine, Rs. 40 Lakhs for 35.98 ha mine, Rs. 20 Lakhs for 73.33 ha mine and Rs. 40 Crore for cement Plant for five years). Project Proponent reported that the Village Development Work like construction of English medium school, temple, 10 bedded Hospital & Road Maintenance etc. will be done in consultation with Gram Panchayat. An amount of Rs. 4.0 Crores/- is earmarked for Construction of School, Rs. 30 Lacs/- for Temple Construction), Rs. 1.5 Crores for Road Maintenance and Rs. 3.0 Crores/- for Hospital Construction. Skill development programme will be carried out so that locals become eligible for employment. An amount of Rs. 60 Lacs/- has been earmarked for skill development programme. (iv) No mining activities will take place until the permission of the State Government as per Law for diversion of land use change as applicable is obtained. (v) 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. (vi) 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. (vii) PP shall run an awareness campaign on sanitation for women and utilization of Sanitary Napkin and also to distribute the Sanitary Napkin/pads to the women and provide the training for proper disposal. (viii) PP shall properly store and

transport the radioactive elements use for Gama metrics analyzer. (ix) Project Proponent shall carry out vibration studies well before approaching any such habitats or other buildings to evaluate the zone of influence and impact of blasting on the neighborhood. Within 500 meters of such sites vulnerable to blasting vibrations, avoidance of use of explosives and adoption of alternative means of mineral extraction. A provision for monitoring of each blast should be made so that the impact of blasting on nearby habitation and dwelling units could be ascertained. The covenant of lease deed under Rule 31 of MCR 1960 provides that no mining operations shall be carried out within 50 meters of public works such as public roads and buildings or inhabited sites except with the prior permission from the Competent Authority.

**(2.5). Amalgamation of Limestone Mines (ML No 173/1989, 176/1995, 175/1995, 4/1995, 120/1995, 338/2008, 334/2008) (Total ML Area - 137.9993 ha) with Limestone production capacity of 3.10 Million TPA by M/s Marwar Cement Limited, located at Village Ghorawat, Pundlu, Tehsil -Bhopalgarh, District -Jodhpur, Rajasthan [File no. J-11015/139/2016.IA.II (M); Proposal no. IA/RJ/MIN/51530/2016 (Consultant: M/s JM Environet Pvt. Ltd)- Consideration of Environmental Clearance**

The proposal of M/s Marwar Cement Ltd. is for amalgamation of Limestone Mines (ML No 173/1989, 176/1995, 175/1995, 4/1995, 120/1995, 338/2008, 334/2008) with limestone production capacity of 3.10 Million TPA in the mine lease area 137.9993 ha. The mine lease is located near village-Ghorawat, Tehsil- Pipar City, District- Jodhpur & Village-Pundlu, Tehsil- Merta City, District- Nagaur, Rajasthan. The mine lease area falls between Latitude of 26° 30' 42.41" N to 26° 31' 31.99" N and Longitude of 73° 46' 1.98" E to 73° 46' 53.74" E. The mine lease area is located of Survey of India toposheet no 45F/14.

The proposal of ToR was earlier considered by the EAC in its meeting held during May 23<sup>rd</sup> -24<sup>th</sup>, 2016 wherein the Committee recommended the ToR. The Ministry issued Terms of Reference (ToRs) for the preparation of the Environmental Impact Assessment (EIA) Report and Environmental Management Plan (EMP), vide letter no.J-11015/139/2016-IA. II (M), dated 23<sup>rd</sup> June, 2016. PP has submitted the EIA/EMP Report online to the Ministry for seeking Environmental Clearance after conducting Public Hearing.

The total mining lease area is 137.9993 ha. Out of the total lease area, 71.3502 ha is Govt. land and rest 66.6491 ha area is private land. Initially seven mining leases have been granted to M/s Vedanta Industries Ltd. for minor minerals which were subsequently changed to major mineral by State Government of Rajasthan, vide their letter dated 12.08.2014. The details of seven leases w.r.t Lease period, EC & Consents are as follows:

S. No.	ML No.	Area (in ha)	M L Period	EC Granted	CTO Granted

1.	173/1989	5.0	Upto 30 years (from 17.08.1995)	Dated 27.12.2010 for Production capacity of 1,00,000 TPA	Dated: 14.03.2013 for Production capacity of 1,00,000 TPA
2.	176/1995	4.9	Upto 30 years (from 21.11.1995)	-	Dated: 03.09.2013 for Production capacity of 200 TPA.
3.	175/1995	4.9	Upto 30 years (from 21.11.1995)	-	Dated: 03.09.2013 for Production capacity of 200 TPA
4.	4/1995	5.0	Upto 30 years (from 27.11.1995)	Dated: 04.03.2011 for Production capacity of 1,00,000 TPA	Dated: 18.11.2011 for Production capacity of 1,00,000 TPA
5.	120/1995	8.9	Upto 30 years (from 19.03.1996)	Dated: 28.02.2011 for Production capacity of 1,00,000 TPA	Dated: 31.08.2012 for Production capacity of 1,00,000 TPA
6.	338/2008	100.0	Upto 20 years (from 23.12.2010)	Dated 27.08.2009 for Production capacity of 3,00,000 TPA	Dated: 21.09.2012 for Production capacity of 3,00,000 TPA
7.	334/2008	9.0	Upto 20 years (from 29.03.2011)	Dated: 29.12.2009 for Production capacity of 1,00,000 TPA	Dated: 01.08.2013 for Production capacity of 1,00,000 TPA

PP reported that later all the above seven Mining Lease have been amalgamated and new mining lease has been granted as ML 173/89 on 01.04.2015 for 137.9993 ha near village Ghorawat, Tehsil Pipar City, District Jodhpur, Rajasthan in favor of M/s Vedanta Industries Ltd. The name of company was changed from M/s Vedanta Industries Limited to M/s Marwar Cement Limited and was approved by the Registrar of Companies, Maharashtra, Mumbai vide letter dated 06.02.2014. Letter for name change in LOI has been received from Government of Rajasthan, vide letter no. P3 (10) Mine/group-2/2013 Jaipur, dated 5<sup>th</sup> March, 2017. Mining Plan with Progressive Mine Closure Plan has been approved by Indian Bureau of Mines (IBM), vide letter no. 584(4) (3) (1684)/2017-RCM-AJM, dated 13.04.2017. The limestone production capacity per annum will be 3.10 million TPA. Total mineral reserves are of 68.072 Million tonnes out of which total Mineable Reserves are 61.206 Million tonnes. Out of the total Mineable reserves i.e. 61.21 million tonnes, 12.40 million tonnes are proposed to be excavated during the plan period and the balance 48.81 million tonnes will be excavated till the end of life of mine. Further

exploration is proposed during the plan period to convert the available limestone resource of 6.87 million tones into mineable reserves. Total excavation details of first five years are as per below:

S. No.	Year	Total tentative excavation (in tonnes)	Top Soil (in tonnes)	OB/SB/IB (in tonnes)	ROM (in tonnes)		
					Ore	Mineral reject	Total
1.	I Year	1563654.8	13654.8	310000	1240000	-	1240000
2.	II Year	2341398	16398	465000	1860000	-	1860000
3.	III year	3898356.8	23356.8	775000	3100000	-	3100000
4.	IV Year	3901287.2	26287.2	775000	3100000	-	3100000
5.	V Year	3899762.6	24762.6	775000	3100000	-	3100000
	Total	15604459.4	104459.4	3100000	12400000	-	12400000

Note: Conversion Factor: CuM \*Bulk Density (2.5) = Tonnes (For OB/IB/SB and Limestone) CuM \*Bulk Density (1.8) = Tonnes (For top soil)

Total excavation will be maximum in fourth year i.e., 3901287.2 tonnes including 26287.2 tonnes top soil, 775000 tonnes OB/IB/SB and 3100000 tonnes limestone.

The method of mining will be opencast mechanized involving drilling and blasting. Drilling will be carried out by hydraulically operated DTH drilling machine. Blasting will be done by using ANFO and high explosives with use of millisecond delay detonators/NONEL, monitoring of each and every blast will be done. The Slope and Blasting study is also proposed during operational phase of mine. Loading of excavated limestone will be done by hydraulic excavators, transportation by dumpers. The blasted limestone from the mine site will be transported to the crusher located at cement plant by heavy duty dumpers. Mining will not intersect ground water table. The estimated waste generation from the mining operation is 34.162 million m<sup>3</sup> which is proposed to be backfilled in 81.04 ha of mined out area. About 2.468 million m<sup>3</sup> of top soil will be generated till the end of life of mine, which will be simultaneously used for plantation. Total water requirement for the project will be 100 KLD out of which drinking water requirement is 10 KLD which will be sourced from cement plant after treatment and remaining quantity of water for dust suppression, greenbelt development etc will be taken from mine sump as & when developed. Total manpower required for this project will be 60 persons including skilled, unskilled and semi-skilled staff.

Project Proponent reported that out of total mining lease, Govt. land is 71.3502 ha and Pvt. land is 66.6491ha in which 55.67 ha land has been purchased and 10.9791 ha land need to be purchased. Out of the total mining lease area an area of 133.8900 ha will be mined at conceptual stage. Out of 133.89 ha area, 81.04 ha area will be reclaimed and backfilled followed by plantation, 31.0400 ha area will be converted into water reservoir and 21.8100 ha area will be covered by bench slope plantation. The overall greenbelt development/plantation will be done on 106.94 ha area including 4.09 ha area

along 7.5 barrier zone, 81.04 ha on backfilled area and 21.81 ha on bench slope plantation. The trees will be planted @1500 saplings per ha of land.

Project Proponent reported that there is no National Park, Wildlife Sanctuary, and Biosphere Reserve, Wildlife Corridors, Tiger/Elephant Reserves etc. within 10 km radius of the mine site. Letter for the same along with authenticated location map and list of flora fauna has been obtained from Forest Department vide letter no. F () Tak / DCF/2017/9812 dated 5.10.2017. There is no forest land involves within the lease area. Letter regarding the same has been obtained from Forest Department, Govt. of Rajasthan vide letter no.: F() tak / DCF/ 2017/ 9812 dated 05.10.2017. There are no Reserved & Protected Forests within 10 km radius study area. Two schedule I species reported in study area, Conservation plan for the same has been prepared and submitted to Forest Department, vide letter dated 28.12.2017. Letter showing that ML area does not fall under Aravali range has been obtained from Government of Rajasthan, Department of Mines & Geology vide letter no. ME/Jodh/CC-II/ML 173/89/2017/874 dated 28.04.2017.

The primary baseline data for site specific micro meteorology data, ambient air quality, water quality, noise level, soil and flora & fauna was collected during Summer Season (March–May, 2016). The baseline monitoring results of ambient air, surface water, soil, ambient noise level and ground water have been reported and the same were compared with respective prescribed standards 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<sub>10</sub> and PM<sub>2.5</sub> for all the 13 AAQM stations were found between 59.3 to 76.3 µg/m<sup>3</sup> and 22.2 to 38.2 µg/m<sup>3</sup>, respectively. The concentrations of SO<sub>2</sub> and NO<sub>2</sub> were found to be in range of 5.0 to 9.5 µg/m<sup>3</sup> and 13.0 to 22.5 µg/m<sup>3</sup>, respectively. Noise levels vary from 49.2 to 54.3Leq dB(A) during day time and from 38.2 to 43.8Leq dB(A) during night time and are within the respective ambient noise limits. The analysis result for soil shows that soil is neutral to slightly alkaline in nature and soil texture is sandy loam. The impact prediction carried through modeling indicated maximum incremental concentrations w.r.t. PM<sub>10</sub> as 3.6 µg/m<sup>3</sup>.

The project falls in two Districts Namely Jodhpur and Nagaur therefore two Public hearings were held on two different dates in the two Districts. Public hearing in Jodhpur District was conducted on 17.08.2017 at Dadhimati Mata Temple, Village- Borunda, Tehsil Pipar City, District- Jodhpur, Rajasthan. The Public Hearing in Jodhpur District was presided by Shri Mahipal Kumar, Additional District Collector, Jodhpur wherein Regional Officer, RSPCB, Jodhpur, Rajasthan was also present. Public hearing in Nagaur District was conducted on 24.10.2017 at Tehsil office Merta, Tehsil Merta, District Nagaur, Rajasthan. The Public Hearing was presided over by Shri. Kumarpal Gautam, District Collector, Nagaur wherein Regional Officer, RSPCB, Rajasthan was also present. The issues raised during Public Hearing were also considered and discussed during the meeting. Budgetary allocation for implementation of commitments made during public hearing has been included in ESC plan. An amount of Rs 42.0 Crores/- has been earmarked by MCL towards ESC (including Rs. 50 Lakhs/- for 195.7064 ha mine, Rs. 90



Lakhs for 137.9993 ha mine, Rs. 40 Lakhs for 35.98 ha mine, Rs. 20 Lakhs for 73.33 ha mine and Rs. 40 Crore for cement Plant) (For five years). PP reported that employment will be provided to per person (Direct dependent) per PAF. Priority in employment will be given to villagers as per their eligibility, qualification and requirement of company. Skill development programme will be carried out so that locals become eligible for employment. An amount of Rs. 60 Lacs/- has been earmarked for skill development programme. With regard to protection of dam, PP has reported that the work will be done in consultation with Gram Panchayat to increase the depth of the dam and for providing more water resources. An amount of Rs. 60 Lacs/- has been earmarked for deepening of Dam. With regard to impact on sacred groove, wildlife, animals live within the mining lease, PP reported that biological study has been carry out. There is no sacred groove within the lease area. As per the study, two schedule I species i.e. Peafowl & Chinkara found in study area. Conservation plan with budgetary allocation of Rs. 8.2 Lacs (for 10 years) has been prepared and submitted to Forest Department.

Project proponent reported that total numbers of Project Affected Families (PAFs) involved in the project are 8 out of which, 7 are land oustees and one is homestead oustees. One household exist within mining lease area. MCL will provide the construction cost for new house @ Rs. 1200 per sq feet. Land for house for one PAF will be provided in Ghorawat village with the size of 1.5 times of existing house. Minimum land compensation will be provided as Rs. 9.6 Lacs / ha for village Ghorawat. Other than land and house compensation, Rs. 70 lacs/- have been earmarked towards need based action plan for the PAFs. Direct employment will be provided to one person per PAF in mine as well as in plant or one time compensation of an amount of Rs. 10.0 Lacs/- will be provided for people who are eligible but not interested in Job. Beside this, Skill Development Programmes will be carry out and priorities will be given to PAFs for contractual works in the company. 8 No's of TAANKA will be constructed by MCL in study area for Rain water harvesting which will cover all the PAFs.

Total cost of the Project is Rs. 35.0 Crores. PP has earmarked 1.75 Crores towards the capital cost for Environmental Protection Measures and Rs. 9.0 Lacs/annum as a recurring cost for Environmental Protection Measures. Project Proponent reported that there is no court case/litigation is pending against the project.

The Committee deliberated the proposal and based on the information submitted by PP, the Committee **recommended** the Proposal for grant of Environmental Clearance for Limestone Mine with production capacity of 3.10 Million TPA.

The Committee also **recommended additional specific conditions** viz. (i) Project Proponent shall implement the R&R plan with respect to Project Affected Families with special emphasis of Antenatal care, Female hygiene and financial assistance to nearby villages. Total number of Project Affected Families (PAFs) involved in the project is 8 out of which, 7 are land oustees and one is homestead oustees. One household exist within mining lease area. MCL will provide the construction cost for new house @ Rs.

1200 per sq feet. Land for house for one PAF will be provided in Ghorawat village with the size of 1.5 times of existing house. Minimum land compensation will be provided as Rs. 9.6 Lacs / ha for village Ghorawat. Other than land and house compensation, Rs. 70 lacs/- have been earmarked towards need based action plan for the PAFs. (ii) Project Proponent shall provide direct employment to one person per PAF in mine as well as in plant or One time compensation of an amount of Rs. 10.0 Lacs/- will be provided for person who is eligible but not interested in Job. Beside this, Skill Development Programmes will be carried out and priorities will be given to PAFs for contractual works in the company. An amount of Rs. 60 Lacs/- has been earmarked for skill development programme. 8 No's of TAANKA will be constructed by MCL in study area for Rain water harvesting which will cover all the PAFs. (iii) Project Proponent has earmarked Rs 42.0 Crores/- towards Enterprise Social Commitment (ESC) (including Rs. 50 Lakhs/- for 195.7064 ha mine, Rs. 90 Lakhs for 137.9993 ha mine, Rs. 40 Lakhs for 35.98 ha mine, Rs. 20 Lakhs for 73.33 ha mine and Rs. 40 Crore for cement Plant) (For five years). With regard to protection of dam, PP has reported that the work will be done in consultation with Gram Panchayat to increase the depth of the dam and for providing more water resources. An amount of Rs. 60 Lacs/- has been earmarked for deepening of Dam. (iv) No mining activities will take place until the permission of the State Government as per Law for diversion of land use change as applicable is obtained. (v) 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. (vi) 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. (vii) PP shall run an awareness campaign on sanitation for women and utilization of Sanitary Napkin and also to distribute the Sanitary Napkin/pads to the women and provide the training for proper disposal. (viii) PP shall properly store and transport the radioactive elements use for Gama metrics analyzer. (ix) Project Proponent shall carry out vibration studies well before approaching any such habitats or other buildings to evaluate the zone of influence and impact of blasting on the neighborhood. Within 500 meters of such sites vulnerable to blasting vibrations, avoidance of use of explosives and adoption of alternative means of mineral extraction. A provision for monitoring of each blast should be made so that the impact of blasting on nearby habitation and dwelling units could be ascertained. The covenant of lease deed under Rule 31 of MCR 1960 provides that no mining operations shall be carried out within 50 meters of public works

such as public roads and buildings or inhabited sites except with the prior permission from the Competent Authority.

**(2.6). Birla Cement Limestone Mine of M/s Birla Cement Works for enhancement of production capacity from 2.824 million TPA to 4.324 million TPA of limestone, located near Villages: Bherda, Jai, Surjana & Nagri, P.O. Semalpura, Tehsil & District Chittorgarh, Rajasthan (M.L. No. 10/83 & ML area: 588.59 ha) (File no. J-11015/73/2014-IA.II (M); Proposal no. IA/RJ/MIN/22914/2014 (Consultant: M/s JM Environet Pvt. Ltd) –Re-Consideration of Environmental Clearance**

The proposal of M/s. Birla Cement Works is for enhancement of production capacity from 2.824 Million TPA to 4.324 Million TPA in respect of Birla Cement Limestone mines of M/s. Birla Cement Works in M.L. Area of 588.59 Ha. The project also envisages:- Installation of Beneficiation Plant with capacity of 200 TPH for the crusher waste; Installation of Stationary/ Mobile Crusher with capacity of 500 TPH at Nagri pit; Installation of Over Land Belt Conveyor (OLBC) with capacity of 900 TPH from Nagri pit to Jai Surjana crushed limestone stock yard; and Installation of 5 MW Solar Power Plant at Bherda. The mine is located at Villages – Bherda, Jai, Surjana & Nagri, P.O. Semalpura, Tehsil & District Chittorgarh (Rajasthan). The instant mine lease area is spread into two blocks viz. Block B (Village - Bherda) & Block C (Villages -Jai, Surjana & Nagri which fall in Survey of India Topo sheet No. 45L/9. The Block B of mining lease area falls between 24°54'45.42"N to 24°56'4.47"N latitudes and 74°38'4.84"E to 74°39'27.5"E longitudes while the Block C of mining lease area falls between 24°56'2.2"N to 24°58'17.3"N latitudes and 74°39'58.8"E to 74°42'5.4"E longitudes. The PP also presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

The proposal of EC was earlier considered by the Expert Appraisal Committee in its meeting held during 19-20, September, 2017 wherein the EAC deferred the proposal and sought requisite information. Based on the information submitted by PP, the proposal was again considered by the EAC in its meeting held during December 21-22, 2017 wherein the Committee made detailed deliberations on the proposal and deferred the proposal and sought the following information/clarification:-

- (i). PP to submit Proof of submission of application for CGWA clearance for water table intersection;
- (ii). PP to submit NOC from State Government clearly stating that no dues are pending towards illegal mining as per Section 21(5) of the MMDR Act, 1957 in pursuance of the judgment dated 02.08.2017 of Hon'ble Supreme Court in the matter of Common Cause Vs Union of India & Others; and
- (iii). Ministry to examine and refer the matter of nil NBWL clearance till date to Wildlife Division, MoEFCC and State Wildlife Department.

In this context, PP vide letter dated 14.03.2017 has submitted the following information which were deliberated by the EAC. The details are as below:

- (i). PP has reported that the application for taking permission for dewatering of ground water has been submitted to CGWB vide letter dated 29<sup>th</sup> March, 2018 (Online) and on 02<sup>nd</sup> April, 2018 (Hard copy).
- (ii). The Committee in its earlier meeting observed that as per the past production and consent details, the PP was operating since 1964-65 whereas the Consent was obtained in 1996 only. The EIA regime started from 1994 and only those operational projects which have been working under valid NOC from State Pollution Control Boards were exempted till they undergo expansion/ modernization. The PP did not had valid NOC from SPCB in 1993-94, hence, it was required to obtain an EC in 1994. Further, it has progressively increased its production from 1993-94 levels without obtaining EC. The EC was first obtained in 2004. Hence, the proposal attracts the Hon'ble Supreme Court Judgment dated 02.08.2017. In this context, the Committee suggested that the PP shall obtain NOC from State Government clearly stating that no dues are pending towards illegal mining as per Section 21(5) of the MMDR Act, 1957 in pursuance of the judgment dated 02.08.2017 of Hon'ble Supreme Court in the matter of Common Cause Vs Union of India & Others.

PP reported that No dues certificate was issued by State Govt. of Rajasthan, Department of Mines & Geology, vide letter ME/ Chittor/Mang/Vividh/ML 10/1983/2018/371, dated 17.04.2018. The Department of Mines & Geology in its letter mentioned that there are no dues in respect of illegal mining as per provision given in section 21(5) of MCDR Act 1957 for mining lease no. ML 10/1983 of mineral limestone (cement grade) near village Bherda Jai Surjana & Nagri granted in favour of M/s Birla Cement Works. The State Govt. letter inter-alia mentioned that reference of PP's letter but does not mentioned about the reference of judgment dated 02.08.2017 of Hon'ble Supreme Court in the matter of Common Cause Vs Union of India & Others. **The Committee deliberated the issues and suggested that Ministry to further examine the issues w.r.t. the judgment dated 02.08.2017 of Hon'ble Supreme Court in the matter of Common Cause Vs Union of India & Others.**

- (iii). The Committee in its earlier meeting observed that the Bassi WLS is falling within 10 kms, the PP was required to obtain NBWL in 2009, however, till date the PP has not obtained NBWL. PP had submitted NBWL clearance application vide proposal no.- FP/RJ/MIN/656/2016 on 04.04.2016. Hence, **the NBWL clearance matter may be referred to concerned division in MoEFCC as well as State Wildlife Department for taking necessary action under applicable provisions.**

The Committee deliberated the proposal and based on the information submitted

by PP, the Committee **deferred** the proposal and the Proposal may be considered only after examination of the issues **w.r.t. the judgment dated 02.08.2017 of Hon'ble Supreme Court in the matter of Common Cause Vs Union of India & Others and comments of NBWL Division as well as State Wildlife Department for taking necessary action under applicable provisions.**

- (2.7). **Amendment in EC dated 1st October, 2010 of M/s Rajasthan State Mines and Minerals Limited w.r.t. increase of life of mine from 9 years to 24 years for Basani Limestone (Minor Mineral) (ML No.5/95) Mining Project, located at Village Basani, Tehsil Merta, District Nagaur, Rajasthan (MLA 2084.10 ha) (F. No. J-11015/379/2008-IA.II(M); Proposal No. IA/RJ/MIN/8801/2008–Amendment in Environmental Clearance**

The proposal of M/s Rajasthan State Mines and Minerals Limited is for Amendment in Environmental Clearance dated 01.10.2010 w.r.t. increase of life of mine from 9 years to 24 years. The mine is located in Village Basani, Tehsil Merta, District Nagaur, Rajasthan in MLA of 2084.10 ha.

The Ministry has accorded the environmental clearance to the project vide letter F.No.J-11015/379/2008-IA.II (M), dated 1st October, 2010 for the Basani Limestone Mining Project for enhancement of production of limestone to 10.00 lakh TPA and the life of mine is 9 years. The total mine lease area of the project is 2084.10ha, which is a Government wasteland and Khatedari land. No forestland is involved. No ecologically sensitive area such as National park/ Wildlife Sanctuary/ Biosphere Reserve etc. and corridor for Schedule –I species is reported to be located within 10 km. radius of the mine lease area.

The Project Proponent reported that with the amendment in Rajasthan Minor Minerals Concession Rules-1986 in year 2012, Mine plan of the area was prepared and got approved by State DMG in year 2014. As per approved mine plan dated 27.03.2014, the balance estimated reserves has been reported based on the additional exploration. Accordingly, the life of the mine estimated up to year 2024 at maximum annual rated production capacity of 10.00 Lakh TPA. Project Proponent reported that there is no enhancement of production of mineral, no change in mining lease area, and no change in mining technology. Project Proponent also reported that the production since the period of grant of EC from mines was always lower than the targeted annual capacity and it resulted into enhancement of life of mine. Department of Mines and Geology, vide letter dated 17.06.2014 has renewed the mine lease and extended up to 28.10.2026.

The PP had submitted the required information on approved mining plan, certified production details by DMG, Govt. of Rajasthan since grant of EC and copy of consent to operate issued by Rajasthan State Pollution control board since year 2010-11 onwards. PP also informed that the consent to operate was first obtained in year 2001-02 for the project & renewed time to time and is valid upto Sept 2019. PP reported that while grant last renewal, the State Pollution Control Board had asked to get amendment in EC, as the

life of the mines is 9 years as detailed in the EC issued by Ministry on 1st October, 2010. PP has submitted letter from Rajasthan State Pollution Control Board to this effect. PP also reported that they have never increased the production capacity beyond the capacity granted in consent to operate for the area by the State Pollution Control Board. However, the certified compliance report from the regional office of MoEFCC was not submitted instead the PP submitted the status of compliance EC conditions duly certified by it.

The Committee deliberated the information submitted by PP and **recommended** the proposal for amendments in Environmental Clearance No. 11015/379/2008-IA.II (M), dated 1st October, 2010 w.r.t. increase of life of mine from 9 years to 24 years for Basani Limestone (Minor Mineral) **subject to submission** to past production details and CTE/CTO details since inception of mine to ascertain the violation, if any.

**(2.8). Amendment of EC w.r.t. 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)] Re-Consideration of Amendment in Environmental Clearance**

The proposal of 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 mine* located at Damanjodi village, Koraput Tehsil, Koraput District, Odisha in mining lease area of 528.262 Ha.

The proposal was earlier considered in EAC meeting held in May 29-30, 2017, September 18-19, 2017 and January 18-19, 2018 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.

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 EAC meeting held during January 18-19, 2018.

During the January 2018 EAC meeting, 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, (i) Greenbelt of 7.5m is not created all along lease boundary by PP; (ii) Water harvesting measures have not been put in place and action is required to be initiated on the same by PP; (iii) 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. 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.

The Ministry, vide letter dated 13.02.2018, has sought the requisite information based on the discussion of EAC meeting. In this context, PP vide letter dated 22.03.2018 has submitted the information and accordingly the proposal is considered in this meeting. The PP has presented the following details before the EAC meeting:-

Sl. No.	Information sought by EAC	PP's submission
1.	Authenticated Past production	The Mining activity of Panchpatmali South Block

	<p>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 Deptt. of Steel &amp; Mines, Govt. of Odisha in confirmation to Hon'ble Supreme Court Judgment dated 02/08/2017 in the matter of common cause vs. Union of India &amp;Ors.</p>	<p>mines has been started from 22<sup>nd</sup> May 2017 and the cumulative bauxite production till 28/02/2018, is 1,90,400 MT, as per the certification issued by Dy. Director of Mines, Koraput Division, Odisha vide letter dated 15.03.2018. PP also confirmed that no demand has been raised on Nalco by Deptt. of Steel &amp; Mines on the basis of Hon'ble Supreme Court judgment dated 02/08/17 in the matter of common cause vs. Union of India &amp;Ors. The CTE of Panchapatmali South Block Bauxite Mine was obtained from SPCB, Odisha vide ref. 16733/Ind-II-NOC-6041, dated 21-11-2016. The CTO for Panchapatmali South Block Bauxite Mine from SPCB, Odisha was obtained vide ref. 3745/Ind-I-CON-6387, dated 28-03-2018 and is valid till 31-03-2020. The Committee deliberated the issues.</p>
2.	<p>Greenbelt of 7.5m is not created all along lease boundary by PP</p>	<p>PP reported that the mining activities has been started only on 22.5.2017. As per scheme for safety zone prepared in consultation with Forest Dept. of Govt. of Odisha, safety zone plantation will be carried out on the peripheral barrier along with advancing mining face. As per the scheme, 2500 no. of trees are to be planted every year over an area of 1.0 Ha. Accordingly, safety zone plantation of 2500 no. of trees was started in the south block during monsoon of 2017 over an area of 1.0 Ha. The safety zone is located in a hard, rocky and sloppy edge of the hills and hence, the growth of trees will be slow. The growth of trees will be visible after 3/4 years since these have been planted only recently. The objectives of the greenbelt development plan are to (a) Reclaim &amp; rehabilitate the mined out areas by planting trees which are indigenous in nature; (b) Provide a green belt around the periphery of the mining area to combat the dispersal of dust in the adjoining areas; (c) Protect the erosion of the soil; (d) Conserve moisture for increasing ground water recharging; and (e) Restore the ecology of the area. The Committee deliberated the issues.</p>
3.	<p>Water harvesting measures</p>	<p>At present, 2 no. of rain water harvesting</p>



	<p>have not been put in place and action is required to be initiated on the same by PP,</p>	<p>reservoirs have been developed. The capacity of the two nos. of ponds are as follows, (a) Pond no-1 of 6156 cum Capacity; and (b) Pond no-2 of 6300 cum Capacity. Also, rooftop rainwater harvesting structures for the Administration Building and Mine Manager's Building have been provided to augment ground water recharging. The drainage systems are maintained ahead of mining operation to drain surface run-off water to the mining pit following natural gradient. Surface run-off from the active mining area is retained within the mine pits and is collected in the lower portions / sumps in the mine lease area and is allowed to percolate into ground. Further, to develop a rain water harvesting scheme, the Central Ground Water Board (CGWB) South Eastern Region, Bhubaneswar has been contacted vide letter No. NAL/MIN/ENV/2017/92 dated 6/9/2017. CGWB Authority vide letter dated 15/09/2017 informed that they do not carry out such assignments and if any such scheme develops by Nalco through engagement of some third party, the scheme shall be vetted by them. Nalco is in the process of appointing agency for preparation of a suitable scheme on water harvesting measures (by 30/06/2018) and the scheme shall be finalized in due consultation with CGWB authority, Odisha (by 31/03/2019). The work shall be executed as per the final scheme vetted by CGWB authority, Odisha. The Committee deliberated the issues.</p>
<p>4.</p>	<p>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.</p>	<p>The Site specific Wildlife Management &amp; Conservation Plan for South Block has been prepared by NALCO for South Block during 2010 and has been approved by Chief Wildlife Warden vide order No. 9693 /TWL-C-SSP-273/2010, Dt 9-11-2010 . A deposit of Rs 10.43 Crore has been made with CAMPA, MoEF&amp;CC for its implementation. Out of Rs 10.43 crores, Rs 8.15 Crore has been provisioned for implementation of the action plan in the buffer zone by DFO, Koraput. Balance Rs 2.28 crores is to be utilized for activities in core zone by the user agency i.e. NALCO after receiving required fund from CAMPA.</p>

		<p>PP also mentioned that NALCO has not yet received the fund of Rs 2.28 Cr from CAMPA for implementation of the action plan in the core zone. However, action has already been taken on the implementation from its own fund. The details of activities carried out by NALCO are provided by the PP. The Committee deliberated the issues.</p>
4.	<p>The Committee 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.</p>	<p>PP mentioned that total forest land is 189.552 Ha in the mine lease area. The Stage-2 FC has been obtained for 110.30 Ha vide MoEF letter no. 8-330/1983-FC (Pt-I), dated 20.07.2011 and for balance land of 79.252 Ha FC is in progress. The process for Stage II FC is under progress. The NPV for an amount of Rs.11,86,59,552 had been deposited for total forest land of 189.552 Ha.</p> <p>The Committee deliberated the issues and observed that the Mining activity of Panchpatmali South Block mines has been started from 22<sup>nd</sup> May 2017 and the cumulative bauxite production till 28/02/2018, is 1,90,400 MT, as per the certification issued by Dy. Director of Mines, Koraput Division, Odisha vide letter dated 15.03.2018.</p> <p>In view of the above, the FC Division may be consulted for ascertaining whether PP has made any violations related to FC Act, 1980 or not.</p>

The Committee deliberated the information submitted by PP and **recommended** the proposal for amendments in Environmental Clearance No. J-11015/78/2010-IA-II(M) dated 28.02.2011 w.r.t. 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 **subject to comments of FC division for ascertaining whether PP has made any violations related to FC Act, 1980 or not.**

The Committee also **recommended additional specific conditions** viz. (i) 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. (ii) 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. and (iii) PP shall run an awareness campaign on sanitation for women and utilization of Sanitary Napkin and also to distribute the Sanitary Napkin/pads to the women and provide the training for proper disposal.

**(2.9). Amendment in EC letter dated 16.04.2007 for Century Cement Limestone Mine (MLA: 74.843 ha) with production capacity of 1.2 MTPA of limestone, located at villages Bahesar & Tulsi, Tehsil: Tilda, District: Raipur, Chhattisgarh) by M/s Century Textiles and Industries Limited. (F. No. J-11015/120/2006-IA.II (M); Proposal No. IA/CG/MIN/19471/2007) (Consultant: J. M EnviroNet Pvt. Ltd.) – Re-Consideration of Amendment in Environmental Clearance**

The Proposal of M/s Century Textiles and Industries Ltd (Unit: Century Cement) is for amendment of EC dated 16.04.2007 w.r.t. capping in para - 1, Line - 15, "Both the existing and the new mine lease will produce together upto a maximum of 18 lakh tonne per annum of limestone." The mine is located at Villages Bahesar & Tulsi, Tehsil: Tilda, District: Raipur, Chhattisgarh. The ML area falls between Latitude: 21° 30' 46" to 21° 31' 20" N & Longitude: 81° 47' 15" to 81° 48' 15" E and is covered by the Survey of India Toposheet No. 64 G/14. The Project is located in Seismic zone-II.

M/s Century Textiles and Industries Ltd (Unit: Century Cement) has two mines i.e. ML Area 74.843 ha & ML Area 237.003 ha located at villages Bahesar & Tulsi and Bahesar and Tandwa respectively, Tehsil - Tilda, District- Raipur, Chhattisgarh. Both lease areas are contiguous. Both the mines are captive to the cement plant of Century Cement, which was established in 1974 at Baikunth, District: Raipur, Chhattisgarh and Environmental Clearance for the same was obtained from MoEFCC, New Delhi.

The Environmental Clearance for ML Area 237.003 ha for Limestone production capacity of 1.8 Million TPA was obtained from MoEFCC, vide letter no. 11015/121/2006-IA.II (M) dated 06.09.2007. Existing Environmental Clearance letter for ML Area 74.843 ha with production capacity 1.2 Million TPA and EC was obtained from MoEFCC, vide no. J-11015/120/2006-IA.II (M) dated 16.04.2007 with capping in para - 1, Line - 15, "*Both the existing and the new mine lease will produce together upto a maximum of 18 lakh tone per annum of limestone.*" After that, Consent to Establish under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 was obtained vide letter no 2782/TS/CECB/2007 DATED 16/05/2007, for 1.2 Million TPA limestone production capacity from Chhattisgarh Environment Conservation Board (CECB), Raipur (Chhattisgarh). Further, Consent to Operate under Water and Air Act was obtained vide letter no. 5220/TS/CECB/2017 dated 22.12.2017 for 1.2 Million TPA limestone production capacity from Chhattisgarh Environment Conservation Board (CECB), Raipur, Chhattisgarh. Permission for

ground water intersection has been obtained from CGWA vide Letter No. 21-4 (91)/ NCCR/ CGWA/ 2011 – 260, dated: 17.03.2011 and renewed on 22.11.2016 vide Letter No. 21-4 (91)/ NCCR/ CGWA/ 2011 – 2608. Then, M/s Century Textiles and Industries Ltd (Unit: Century Cement) submitted the Application for amendment in Existing EC on 30.12.2017 on MOEFCC Web Portal for removal of the capping “Both the existing and the new mine lease will produce together” and to mention the existing capacity i.e. 1.2 MTPA in the Existing EC Letter.

This proposal was earlier considered by the EAC in its meeting held during February 26-27, 2018 wherein the Committee deliberated the proposal and deferred the proposal and is of the view that the PP needs to submit the (i) status of compliance of earlier EC conditions; (ii) Authenticated past production details from the State Department of Mines & Geology since inception of mine or from 1990 to till date in light of the Common Cause Judgment pronounced by the Hon’ble Supreme Court on dated 02.08.2017; (iii) The Details of consent under Air/Water Act obtained by PP since start of mining operations along with document; and Details of lease and its all renewals along with document.

In this regard, the PP vide letter dated 31.03.2018 has submitted the information/clarification and accordingly the proposal is considered in this meeting.

- i) Certified Compliance Report for the status of compliance of earlier EC conditions has been obtained from Regional Office, MoEFCC vide letter no. F.No. 3-26/2007(Env)/3343 dated 26.02.2018. As per Certified Compliance Report one Specific condition and seven General conditions are partially complied for which the compliance status of the same along with photographs and documentary evidences has been submitted. The Committee deliberated the compliance status of earlier EC conditions.
- ii) Authenticated Past Production Detail was obtained from the Dy. Director (Mineral Administration), Collectorate Raipur on 13.03.2018. PP reported that the mining operation was commenced in the year 2007-08 after obtaining the EC & CTO. The maximum production was 6,90,601 TPA in 2013-14 which is well within the EC capacity of 1.2 million TPA. The Committee noted that there is no violation observed in pursuance to the Hon’ble Supreme Court judgement dated 02.08.2017 in the matter of Common Cause Vs. UoI & Ors.
- iii) Mining lease has been granted and executed in favor of M/s Century Textiles and Industries Limited (Unit: Century Cement) on 30.09.2002 which is valid up to 30 years. The validity of the lease has been extended up to 50 years as per the Mines and Minerals (Development and Regulation) Amendment Act, 2015. EC was obtained in 2007 vide letter no. J-11015/120/2006-IA.II (M) dated 16.04.2007. Consent to Establish was obtained vide letter no.2782/TS/CECB/2007 Raipur, dated 16.05.2007 and Consents to Operate under Water and Air Act was obtained vide letter no. 613/TS/CRCB/2008 dated 04.02.2008. Further, Consent to Operate under Water and

Air Act was obtained vide letter no. 5220/TS/CECB/2017 dated 22.12.2017 for 1.2 Million TPA limestone production capacity from Chhattisgarh Environment Conservation Board (CECB), Raipur, Chhattisgarh. Permission for ground water intersection has been obtained from CGWA vide Letter No. 21-4 (91)/ NCCR/ CGWA/ 2011 - 260, dated: 17.03.2011 and renewed on 22.11.2016 vide Letter No. 21-4 (91)/ NCCR/ CGWA/ 2011 - 2608.

The Committee deliberated the information submitted by PP and **recommended** the proposal for amendments in Environmental Clearance No. 11015/120/2006-IA.II (M) dated 16.04.2007 w.r.t. substituting the sentence in para - 1, Line - 15, "Both the existing and the new mine lease will produce together upto a maximum of 18 lakhs tonne per annum of limestone" to "The existing capacity of this mine is 1.2 Million TPA of limestone."

The Committee also **recommended additional specific conditions** viz. (i) 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; (ii) 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; (iii) The mining operations will encounter water table and permission for intersecting the ground water table has been obtained from Central Ground Water Authority. In this context, Project Proponent shall comply the following conditions viz. (a) The Regular monitoring of ground water table to be carried out by establishing a network of existing wells and constructing new piezometers. The Reports shall be submitted at interval of six months to the Regional Office of the Ministry and Rajasthan State Pollution Control Board. (b) The water balance/ water auditing shall be carried out and measures for reducing the consumption of water shall be taken up and reported to the Regional Office of the Ministry and Rajasthan State Pollution Control Board. (c) The 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 at interval of six months to the Regional Office of the Ministry and State Pollution Control Board. (d) The Plantation/Green belt at the periphery of the water body, particularly on eastern and western boundaries, shall be maintained in the mined out area in order to reduce the loss of surface water.

**(2.10). Enhancement of Koira Iron Ore Mine with production capacity from 1.5 MTPA to 4.0 MTPA of M/s Essel Mining & Industries Ltd., located at Villages Koira, Kadodihi & Harischandrapur under Koira block of Koira**

**Tehsil of Sundargarh District, Odisha (MLA 90.143 ha) (F. No. J-11015/171/2011-IA-II(M); Proposal No. IA/OR/MIN/53847/2016) (Consultant: B.S. Envi-Tech Pvt. Ltd.) -Consideration of TOR**

The proposal of M/s Essel Mining & Industries Ltd. is for Koira iron Mines with enhancement of production capacity from 1.5 MTPA to 4.0 MTPA in MLA of 90.143 ha. The mine is located at villages - Koira, Nuagaon, Kadodiha & Harischadrapur, Tehsil - Koira, District - Sundargarh, Odisha. The mining lease area is bounded by latitude 21° 53' 42.58572" to 21°54' 27.61380" N and longitude 85° 13' 07.73544" to 85° 14' 04.07976" E.

Project Proponent reported that the Government of Odisha granted the mining lease to Koira Iron Mines of M/s S Lal & Co Ltd for exploitation of Iron ore over an area of 90.143 ha in village Koira, Nuagaon, Kadodihi & Harischandrapur of Koira Tehsil, Sundergarh District of Odisha state for a period of 30 years w.e.f 27.08.1971, duly executed on 27.08.1971. The name of M/s S. Lal & Co Ltd has been changed to M/s Essel Mining & Industries Limited under Companies Act, 1956 on 23.10.1990 as required under MC Rule, 1960 which was duly acknowledged by the Govt. of Orissa on dated 09.01.1991. The original lease expired on 26.08.2001 and accordingly the Lessee has filed renewal application in "Form-J" of MCR-1960 dated 27.7.2000 vide RML no 125 to the State Government of Orissa 12 month before the expiry of the lease, for further period of 20 years over an area of 90.143 hectares. As per provision under Section 8 (A) of MMDR Amendment Act 2015, the Government of Odisha has extended the validity period of the mining lease up to 26.08.2021. Accordingly, the supplementary lease deed has been executed on 14.07.2016.

Total mine lease area is 90.143 ha. Out of which 59.458 ha is forest land and 12.252 ha is Govt. non-forest land. Stage I forest clearance for degraded forest measuring of 59.458 ha has been obtained from MoEF, vide letter No. 8-102/201-FC, dated 29.08.2013. The Environmental Clearance for enhancement of Iron ore production capacity from 0.06 Million TPA to 1.5 Million TPA was obtained from MoEF, vide letter no. 11015/599/2007-IA.II (M) dated 24.09.2008. Further, Environmental Clearance with enhancement of production capacity 1.5 Million TPA to 4.0 MTPA was obtained from MoEFCC, vide no. J-11015/171/2011-IA.II (M) dated 07.05.2015.

The method of mining is open cast mechanized mining by benching from top to bottom on hill slopes. The iron ore deposit will be mined to a depth of 501 mRL. The iron ore will be mined systematically by bench method laterally as well as depth- wise and the ore will be exploited from the top to bottom. The overall pit slope will be kept at 45°. Presently EMIL is using about 500 m<sup>3</sup>/day of water in the KIM. This water will be sourced from bore wells within the mining lease area equipped with pumping arrangement. Presently EMIL is having NOC for 500m<sup>3</sup>/day of ground water for meeting the requirement of mining and allied activities. The capital Cost for expansion is estimated as Rs. 55.33 crores.

PP reported that the Koira Iron Mine was temporarily suspended from 01.01.2018 to 15.02.2018 by Dept. of Steel & Mines, Govt. of Odisha due to non-payment of compensation U/S 21(5) of MMDR Act-1957 in respect of other mining leases of the company. On payment

of such compensation, the resumption order issued by the Deputy Director of Mines, Koira Circle on dated 16.02.2018. However, the said letter dated 16.02.2018 was not submitted by PP.

Project Proponent reported that the mine is in operation since 1971 and presently the mine is in operation with due compliance of the Hon'ble Supreme Court Order dated 02.08.2017 in W.P.(C) No-114/2014. The details are as follows:

S. No.	Issue	PP's submission
1.	Compliance of Order dated 02.08.2017 in CWP no. 114/2014 of Hon'ble Supreme Court.	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. 5088 dated 02.09.2017 and 5939 dated 24.10.2017 amounting INR 17,89,69,962.50/= and INR 1,57,72,075/= respectively. PP has only deposited INR 17,89,69,962.50/= vide online Treasury Challan Ref. ID No. 27DDE006CB, dated 27.12.2017. However, in case of demand no. 5939 dated 24.10.2017 for production in excess of the lower of the approved limit under MP & CTO, lessee had challenged the same before the Revisionary Authority. The Revisionary Authority after hearing the matter has been pleased to grant a stay vide proceeding dated 28.12.2017.
2.	Details of demand if any raised by Dept. of Mining and Geology, Govt. of Odisha.	The details of demands raised by the Dept. of Mining and Geology, Govt. of Odisha vide demand notices no. notices no. 5088 dated 02.09.2017 and 5939 dated 24.10.2017 amounting INR 17,89,69,962.50/= and INR 1,57,72,075/= respectively.
3.	Details of payment, if any made to Dept. of Mines and Geology, Govt. of Odisha.	The Proponent has made the payment as demand raised based on the Hon'ble Supreme Court order with an amount of INR 17,89,69,962.50/= vide online Treasury Challan Ref. ID No. 27DDE006CB, dated 27.12.2017. However, in case of demand no. 5939 dated 24.10.2017 for production in excess of the lower of the approved limit under MP & CTO, lessee had challenged the same before the Revisionary Authority. The Revisionary Authority after hearing the matter has been pleased to grant a stay vide proceeding dated 28.12.2017.

4.	Validity of mine lease.	As per the MMDR Amendment Act, 2015 the mining lease of Nadidih Iron and Manganese Mine has been extended and valid upto 26.08.2021. Copy of Supplementary lease deed is submitted by PP.
5.	Status of Mine whether working or not	The mine is in operation.
6.	Details of the past production of mines since its inception, duly authenticated by Dept. of Mines and Geology, Govt. of Odisha.	The details of the past production figure since 1975 to till current year is duly authenticated by the DDM, Koira has been submitted by the PP.

The Committee noted that in pursuance of the Supreme Court order dated 02.08.2017, the DDM, Koira has raised the demand notices no. 5088 dated 02.09.2017 and 5939 dated 24.10.2017 amounting INR 17,89,69,962.50/= and INR 1,57,72,075/= respectively. PP has only deposited INR 17,89,69,962.50/= vide online Treasury Challan Ref. ID No. 27DDE006CB, dated 27.12.2017. However, in case of demand no. 5939 dated 24.10.2017 for production in excess of the lower of the approved limit under MP & CTO, lessee had challenged the same before the Revisionary Authority. **The Revisionary Authority after hearing the matter has been pleased to grant a stay vide proceeding dated 28.12.2017. The proceeding inter-alia also mentioned the next date of hearing is on 22.01.2018. The decision taken on 22.01.2018 is not available with the Committee.**

**In view of the above, the Committee deferred the proposal and sought the following details for further consideration, (i) Decision of Revisionary Authority on 22.01.2018 in the matter and details of appeal, if any, made by Govt. of Odisha in this regard, (ii) Copy of resumption order issued by the Deputy Director of Mines, Koira Circle on dated 16.02.2018.**

(2.11). **Narayanposhi Iron and Manganese Ore Mine of M/s Aryan Mining & Trading Corporation Pvt. Ltd. for enhancement of Iron Ore from 3.0 Million TPA to 6.0 Million TPA and existing 0.036 Million TPA Manganese ore and establishment of Beneficiation Plant with capacity of 2.0 Million within the mine lease area, located at villages of Koira & Kashira and Kathamala RF, Tehsil Koira, District Sundargarh, Odisha (MLA 349.254 ha (F. No. J-11015/288/2008-IA.II (M); Proposal No. IA/OR/MIN/41936/2016) (Consultant: Creative Engineers & Consultants, Chennai) -Consideration of TOR**

The Proposal of M/s Aryan Mining & Trading Corporation Pvt. Ltd. is for enhancement of Iron Ore from 3.0 Million TPA to 6.0 Million TPA and existing 0.036 Million TPA of Manganese ore and establishment of Beneficiation Plant with capacity of 2.0 Million within



the mine lease area. The mine is located at villages of Koira & Kashira and Kathamala RF, Tehsil Koira, District Sundargarh, Odisha in the MLA of 349.254 ha. The lease area fall in Latitude: 21°54'46.07"- 21°56'23.13" North, Longitude: 85°13'41.16" - 85°14'56.56" East and covered in Survey of India Topo Sheet No. 73G/1 & 73G/5. The area is marked by undulating hills with altitudes varying from 545m to 640m above MSL. General slope of the area is towards north. The lease area is easily approachable. NH-215 is passes through the lease area; one side connected to Rajamunda & other side to Panikoili. Barbil is 37 km from the lease area and Koira is only 1.2 Km form lease area. Barsuan, the nearest railway siding, is located at a distance of 30 km from the lease area.

The total lease area is 349.254 Ha. Out of total area 349.254 ha, 259.191 ha is forest land and rest 90.063 ha is non-forest land comprising Government land and private land. Forest clearance for 244.327 ha has already been obtained by the MoEF&CC vide letter F.No.8-34/2000-FC, dated 15<sup>th</sup> November 2007 excluding the safety zone forest area of 14.864 Ha. The Environmental Clearance has obtained from MoEF for enhancement of production of Iron ore from 0.018 to 0.6 MTPA and Manganese ore from 0.001 to 0.0078 MTPA vide letter. no. J-11015 / 388 / 2005-IA.II (M), dated 28-03-2007. Subsequently, EC from MoEF for the production of 3.0 MTPA of Iron Ore & 0.036 MTPA of Manganese Ore vide letter no. J-11015 / 288 / 2008-IA.II (M), dated 21-02-2011. CTO was also obtained with validity up to 31-03-2020. The supplementary leased deed was executed on 17<sup>th</sup> December, 2015 and the Lease validity is up to 31<sup>st</sup> March 2020. Modified Mining Scheme was approved by IBM vide letter No-MS/FM/40-ORI/BHU/2015-16, dated 02.06.2016 for expansion of Iron Ore Production from 3.0 MTPA to 6.0 MTPA.

Project Proponent reported that the mine is in operation since 1945. Presently the mine is in operation with due compliance of the Hon'ble Supreme Court Order dated 02.08.2017 in W.P.(C) No-114/2014. The details are as follows:

S. No.	Issue	PP's submission
1.	Compliance of Order dated 02.08.2017 in CWP no. 114/2014 of Hon'ble Supreme Court.	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. 5072 dated 02.09.2017 and 5091 dated 24.10.2017 and the project proponent has deposited INR 143,95,00967.42 and INR 7,07,453.70.
2.	Details of demand if any raised by Dept. of Mining and Geology, Govt. of Odisha.	The details of demands raised by the Dept. of Mining and Geology, Govt. of Odisha vide demand notices no. 5072 dated 02.09.2017 and no. 5091 dated 24.10.2017 for INR 143,95,00967.42 and INR 7,07,453.70 respectively.
3.	Details of payment, if any made to Dept. of Mines and Geology, Govt. of	The Proponent has made the payment as demand raised based on the Hon'ble Supreme Court order with an amount of INR 143,95,00967.42 vide online

	Odisha.	Treasury Challan Ref. No. 27DDEF51C9 dated 27.12.2017 and INR 707453.70 vide online Treasury Challan Ref. 27DDEF527B Dated 27.12.2017.
4.	Validity of mine lease.	The Government has executed the Supplementary Lease Deed on 17.12.2015 which is valid up to 31.03.2020.
5.	Status of Mine whether working or not	The mine is in operation with due compliance of the Hon'ble Supreme Court Order.
6.	Details of the past production of mines since its inception, duly authenticated by Dept. of Mines and Geology, Govt. of Odisha.	The details of the past production figure from 1993-94 to till current year is duly authenticated by the DDM, Koira has been submitted by the PP.

The mining operations will be through mechanized opencast mining system, involving shovel-dumper combinations, deep hole drilling and blasting. Beneficiation plant will be adopting latest wet technology comprising Drum scrubbers, double deck wet screens, jigs, dewatering screens, thickening cyclones, Thickener, Filter press. The total water requirement will be 1715 m<sup>3</sup>/day comprising 690 m<sup>3</sup>/day for mining, green belt, dust-suppression and drinking water purposes and 1025 m<sup>3</sup>/day for Beneficiation plant make up. The water required will be sourced from the bore well and mine pit water. Permission for 1715 m<sup>3</sup>/day of ground water has already been obtained. The power demand for the integrated mine and beneficiation plant is estimated to be 4000 KVA. Comprising 2000 KVA for mines and 2000 KVA for beneficiation plant. The power requirement will be met from the State grid and backup power from DG Sets. All required amenities / facilities required for the mining activities like site office, rest shelter, VTC, Canteen etc., are available at the site. These facilities will be suitably upgraded for the expansion. The proposed mine expansion and beneficiation plant is expected to generate about 620no of direct and 1500 no indirect employment. The total project cost for the mine expansion for plant and machinery and pre-operative expenses are expected to be Rs. 55 crores where as for the proposed beneficiation plant the capital cost is estimated to be Rs. 30.0 Crores (Stream #1 & 2).

The Project proponent reported that there is no ecologically sensitive features like national parks, biospheres, sanctuaries, elephant corridors, Tiger reserves, etc. within 10 km radius of the mine site. Karo - Karampada elephant corridor is located at about 18.0 km from the mine lease area in North direction. KaroNala is flowing adjacent to western boundary of the lease area. Lekera Pani Nala 1.5 KM (E), Teheri Nala 5.5 KM (SE), Kalmang Nala 3.2 KM (NE), Kara Nadi 2.0 KM (N), Samij Nala 3.0 KM (NW), Eruanala 3.0 KM (W), Sarakanda Nadi 10.0 KM (SSW), Gamlei Nalla 7.5 KM (NNE), Topadihi Nala 7.5 KM (ESE), Khajurdihi Nala 7.5 KM (SSE) and Parahi Nala 8.5 KM (SSE) are also found in the 10 km buffer zone. EC compliance report prepared and submitted for approval on 18.11.2017 for period from 01.04.2017 to 30.09.2017 to Regional Director of MoEF&CC, Bhubaneswar.

The total geological resource as on 31.03.2016 for iron is 197.844 million tonnes and the mineable reserve is 185.00 million tonnes. The total geological resource for Manganese is 0.542 million tonnes and the mineable reserve is 0.534 million tonnes. There will be about 31.82 Mt (14.46 Mm<sup>3</sup>) of waste from mines is to be likely generated during the life of the mine from iron ore production. It estimated that about 13.15 Mm<sup>3</sup> mineral rejects will be generated during life of the mine, out of which 50% i.e. 6.58 Mm<sup>3</sup> will be blended with high grade iron ore. The remaining 50% i.e. 6.57 Mm<sup>3</sup> will be fed to the beneficiation plant and about 10% i.e. 1.44 Mt (0.65 Mm<sup>3</sup>) of waste will be generated during life of the mine. Hence, total waste generation from mine and plant will be 33.267 Mt (15.12 Mm<sup>3</sup>) [31.82 Mt + 1.44 Mt]. Out of this, about 1.661 Mm<sup>3</sup> of waste to be generated shall be dumped at existing dump-1, 0.500Mm<sup>3</sup> of waste shall be used for road formation/maintenance and balance 12.96 Mm<sup>3</sup> will be backfilled in Quarry-3. As per the field position the iron ore has been exhausted within the part of quarry-3 and accordingly dumping has been carried out in the exhausted part of the quarry-3 area from 2016-17 onwards as a part of the reclamation. There will be about 3.74 Mt (1701694 m<sup>3</sup>) waste during the life of the mine from Manganese ore production. Out of this, 507872 m<sup>3</sup> will be dumped in external waste dump (Dump 2 - 127208 m<sup>3</sup> + Dump 3 - 380664 m<sup>3</sup>), about 89625 m<sup>3</sup> of waste shall be used for road formation/maintenance and the balance 1104197m<sup>3</sup>waste will be backfilled. Existing depth of working is up to RL 546m in Iron zone and RL 542m in Manganese zone (as on 31.03.2016). Ultimate depth of working will be 408m RL. Intersection of ground water table is expected in the conceptual stage for iron ore quarry and for Manganese it has already touched. Necessary clearance from CGWA is already granted. The life of the iron ore mine is estimated to be 31 years and that of manganese ore to be 16 years. An area of 147.538 hectares land is already degraded / utilized for mining, dumping, office, road, green belt etc. An area of 271.985 hectares is anticipated to be degraded / utilized at the end of the conceptual planning period. In the post mining stage out of 152.896 ha of mined out area, Reclamation-of 52.53 ha (back-filling & plantation) and 100.366 ha by rehabilitation /plantation will be carried out.

#### Beneficiation plant:

PP reported that out of 6.00 MTPA ROM to be produced after expansion, it is expected that about 66.5% of the material amounting to 4.00 MTPA will be of +61% Fe grade and are easily marketable. The balance 2.00 MTPA of sub grade and low grade material is proposed to be beneficiated for improving its quality to +64% Fe. Hence, a beneficiation plant with 2.00 MTPA capacity is planned within in the mine lease area. This plant will have 2 streams each of 185 TPH capacity and will be within the same mine lease area. The iron ore of size 5 - 18mm /18 - 40mm with +45 to -62 % Fe will be feed to the Scrubber followed by hopper with simultaneously receiving the required quantity of water. By the combined action of attrition & scrubbing the adherent clay & silicate contents are washed away from the surface of ore particles. The latest State of Art technology with Drum scrubbers, double deck wet screens, jigs, dewatering and rinsing screens, thickening cyclones, Hi-frequency screens, filter press will be installed in the unit. The circuit proposed as above is a totally closed circuit with zero effluent discharge. This being a working mine, the envisaged expansion quantity will be achieved in a phased manner. It is proposed to achieve the enhanced 6.0 MTPA iron ore production & existing 0.036 MTPA manganese ore production in the 2<sup>nd</sup> year after

commencement of expansion activities. PP reported that construction of beneficiation plant will commence after obtaining all the necessary statutory clearances and it is expected to be commissioned in 1 year time.

The Member Secretary has informed the Committee that the Ministry of Mines, vide Notification No.S.O.2817 (E) dated 22nd November, 2010 had appointed a Commission of Inquiry consisting Justice M.B. Shah, retired Judge of the Supreme Court of India, for the purpose of making an inquiry into mining of iron ore and manganese ore in contravention of the provision of various Statues and the rules and regulations issued there under, in various States including the State of Odisha. In view of Justice Shah Commission report (2013), the Ministry of Environment, Forest and Climate Change (MoEF&CC) has entrusted the work to CSIR-NEERI to conduct a Carrying Capacity Study with an objective to develop (i) a sustainable development plan for mining activities in the impact area of about 1000 sq.km. in the State of Odisha and (ii) an environmental management plan for current as well as future developmental scenario.

CSIR-NEERI conducted the study encompassing collection of primary data for various environmental components (viz. air, noise, water, soil/ land, biological and socio-economic aspects), collection and analysis of environmental quality data by different mines in the region, modelling for transport scenario and infrastructure need assessment, and meetings/workshops with different stakeholders (like Department of Steel & Mines, Directorate of Mines, IBM-HQ & Regional Office, SPCB, GSI, MoEF&CC, State Forest Dept. etc.. as well as senior executives from respective mines). NEERI has submitted the report along with the recommendations. **The Committee deliberated the recommendations and is of the view that the recommendation of CSIR-NEERI report on carrying capacity study may be included in the TOR condition w.r.t. mining proposal of Iron Ore and/or manganese in the State of Odisha.**

Based on the information submitted and presentation made by PP, the proposal was **recommended for Standard TOR with a specific condition as recommended by CSIR-NEERI on carrying capacity study as per Annexure II.**

- (2.12). **Expansion of production of Iron Ore from 5.3 million TPA (4.3 MTPA ROM Iron ore +1.0 MTPA of low grade iron ore from old dump within lease area) to 9.0 million TPA (8.0 MTPA ROM +1.0 MTPA of low grade iron ore from old dump within lease area) by M/s Bonai Industrial Co. Ltd., located at village Nadikasira & Rengalbeda, Tehsil - Koira, District- Sundargarh, Odisha (MLA: 73.855 ha.). (F. No. J-11015/135/2012-IA.II (M); Proposal No. IA/OR/MIN/73271/2018) (Consultant: Ecomen Laboratories Pvt. Ltd.) -Consideration of TOR**

The proposal of M/s Bonai Industrial Co. Ltd. is for Expansion of production of Iron Ore from 5.3 million TPA (4.3 MTPA ROM Iron ore +1.0 MTPA of low grade iron ore from old dump within lease area) to 9.0 million TPA (8.0 MTPA ROM +1.0 MTPA of low grade iron ore from old dump within lease area) in the mine lease area of 73.855 ha. The mine lease area is located at village Nadikasira & Rengalbeda, Tehsil - Koira, District- Sundargarh, Odisha. The area is bounded by Latitude: 21° 57' 49" N – 21° 58' 25" N, Longitude: 85° 15' 32" E – 85° 16' 13" E in Survey of India Toposheet no. 73 G/5.

The total mine lease area of 73.855 ha comprises 67.637 ha of forest land (KF+DLC) and 6.218 ha of non-forest land. Stage-II Forest clearance for an area of 65.237 ha has been accorded by MoEF, vide letter no. 8-97/2008-FC dated 09/02/2011 and Stage II forest clearance of 2.40 ha (KF+DLC forest) coming under safety zone has been accorded by the Ministry of Environment and Forests vide letter no. 8-97/2008-FC dated 11.12.2014. The mine lease area is 73.855 ha. The breakup of land use category at present is Area excavated (33.9 ha), Over burden/ dump (12.648 ha), Mineral Storage (8.438 ha), Infrastructure (0.769 ha), Roads (2.513 ha), Green belt & Plantation (4.575 ha), Mineral processing plant (2.159 ha), Tailing pond (1.927 ha) & unutilized (6.926 ha).

The Project Proponent reported that the mine was accorded Environmental Clearance vide order no. J-11015/135/2012-IA.II (M) dated 02.07.2015 for 4.3 million TPA ROM and dry processing of 1.0 million TPA of low grade iron ore/reworking of old dumps. Thus total handling of 5.3 million TPA and installation of wet beneficiation plant of 1.0 million TPA capacity. Total handling of iron ore will be 9.0million TPA to get 8.245million TPA of iron ore. The mining method of Nadidih Iron & Manganese Mine will be fully mechanized. The conventional opencast mining with mechanized drilling with 110mm dia drill machine, deep hole blasting, excavation by excavator of capacity 2.6 m<sup>3</sup>bucket capacity and stacking by loader of capacity 1.2 m<sup>3</sup>. Excavator of capacity 1.6 m<sup>3</sup>/1.5 m<sup>3</sup> will be used for feeding the crushing & screening units. ROM iron ore will be processed through dry crushing & screening mobile units. The low grade ore obtained during the process as well as from reworking of old dumps will be processed through the wet beneficiation plant to improve the quality/grade of ore. To prevent generation of fugitive dust during transportation of ore through trucks/dumpers, static water sprinklers have been installed along the haul road within the mine for a length of 4.5 km. Besides that water is also being sprinkled in dust prone areas through water tankers.

The water requirement as per EC accorded on 02.07.2015 is 1940.6KLPD. The company has the electricity permission of total 815 KVA (commercial) and 100 KVA (domestic) from WESCO, a power holding company of State Govt. of Odisha. There are also standby generators of total capacity 628 KVA for support. There is a further requirement of generator of capacity 100 KVA for the expansion project. Moreover the project proponent has installed a solar power support system of 23 KWH to provide electricity in the office and camp area. Presently 246 nos. of people are directly employed in the mine. This will increase to 335 after expansion and indirect employment of 400 people as contract jobs, which will mainly be extended to the local people. So, 735 people will get engagement in total. The

estimated project cost is Rs.200Crores. As regards the economic viability of the project, this Iron ore mine supplies iron ore to the steel, pelletisation, sponge & sinter plants of India and also for Export.

PP reported that Nadidih Iron & Manganese Mine, covering an area of 73.855 ha of M/s Bonai Industrial Company Ltd. is in operation since 11.12.1947. In pursuance to section 8-A (6) of MMDR Amendment Act, 2015, the mining lease period has been extended up to 31/03/2020 by execution of a Supplementary Lease Deed on 02.05.2015 over an area of 73.855 hectares. At present, the production of the mine is from excavation of Iron ore (ROM) from the mine and then dry screening & crushing of iron ore for different grade and size of ore. The low grade ore produced from the dry crushing and screening process is upgraded through wet beneficiation unit. The ROM, accumulated mineral rejects & wastes from Nadidih Iron & Manganese Mines will be hauled through trucks/dumpers to dry as well as wet processing plants. After processing, the finished iron ore will be carried through trucks directly to the ports as well as to the Railway siding and loaded into Rail wagons and dispatched mainly to the steel, pelletisation, sponge, sinter plants throughout India and also to port for export.

The waste materials of Nadidih Mines are mainly laterite, lateritic Iron ore, BHQ/ BHJ, shale, lateritic soil etc. Total 5197354 m<sup>3</sup> of waste is available in the mine at present (less than 45% Fe content). It is expected that approximately 4695871 m<sup>3</sup> of waste will be generated up to the end of life of mine. Approximately 177962m<sup>3</sup>waste materials of this mine will be dumped on the approved dump site and balance part of the waste material will be used for backfilling of exhausted quarry. Previously, the grade of waste material was considered as below 58% Fe content whereas presently the grade of waste material is fixed at Fe content of 45% cutoff.. So, the old waste of Nadidih mines at present are considered as iron ore resource of low grade non-saleable ore.

The water requirement as per EC accorded on 02.07.2015 is 1940.6KLPD (Surface water 1785.6 KLPD, Ground water 155 KLPD) including 1490.3 KLPD for Wet Beneficiation plant. The water is sourced from Karo River. Project proponent have applied to the DOWR, Govt. of Odisha for allocation of 2143 m<sup>3</sup>/day surface water and 155 m<sup>3</sup>/day of ground water in phased manner. At present the permission from Deptt. Of Water Resources, Govt. of Odisha for drawal of surface water of 1057 m<sup>3</sup>/day and ground water 120 m<sup>3</sup>day in 1<sup>st</sup> phase is available with the lessee. The permission for balance quantity is under process with Govt. of Odisha which will meet the requirement for expansion of the project also. The company has the electricity permission of total 815 KVA (commercial) and 100 KVA (domestic) from WESCO, a power holding company of State Govt. of Odisha. There are also standby generators of total capacity 628 KVA for support. There is a further requirement of generator of capacity 100 KVA for the expansion project. Moreover the project proponent has installed a solar power support system of 23 KWH to provide electricity in the office and camp area.

PP reported that there is a Primary health centre, Primary school and club in the mine camp. Blacktop/concrete roads are constructed in villages as per their requirement.

Improvement of road from Karo Bridge to Koira Chowk has been done by project proponent for rural transport and communication. Deep bore well with submersible pumps have been installed in different villages for safe drinking water supply. Toilets have been constructed in different schools. Sewing machines have been provided to SHG for women empowerment. Socio-cultural mandaps have been constructed in the villages for organizing their social activities. Financial assistance is given to Orphanage towards construction of Hostel Building. For promotion of sports project proponent has supported Asian Athletics Meet at Kalinga Stadium. Indian Hockey league has also been supported by project proponent for organizing the game. Financial support is given to local people to promote sports in the village/district/State level. Financial support has been given regularly to school teachers.

PP reported that there are two Legal cases in this instant proposal. (i) 2(C)C Case No. 50/2013 pending in the Court of Ld. S.D.J.M. Bonai, Dist- Sundargarh initiated under section 15 of the E.P. Act, 1986. The said case has been stayed on 28.01.2014 by the Hon'ble High Court of Orissa in CRLMP NO. 44/2014 in Misc Case No. 23/2014. and (ii) Revision Application No. 22/(19)/2018/RC-I is Pending before Ministry of Mines, Government of India, New Delhi against the demand of State Govt. of Odisha dated 24.10.2017 U/s.21(5) of MMDR Act, 1957 for mineral produced in excess of the lower of the approved limits under Mining Plan and Consent to Operate. The aforesaid demand has been stayed by the Ministry of Mines on dated 01.02.2018

Project Proponent reported that the mine is in operation since 1947. Presently the mine is in operation with due compliance of the Hon'ble Supreme Court Order dated 02.08.2017 in W.P.(C) No-114/2014. The details are as follows:

S. No.	Issue	PP's submission
1.	Compliance of Order dated 02.08.2017 in CWP no. 114/2014 of Hon'ble Supreme Court.	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. 5048 dated 02.09.2017 and 5945 dated 24.10.2017 and the project proponent has deposited INR 300,07,44,240/= and INR 11,60,445/- respectively.
2.	Details of demand if any raised by Dept. of Mining and Geology, Govt. of Odisha.	The details of demands raised by the Dept. of Mining and Geology, Govt. of Odisha vide demand notices no. 5048 dated 02.09.2017 and 5945 dated 24.10.2017 and the project proponent has deposited INR 300,07,44,240/= and INR 11,60,445/- respectively.
3.	Details of payment, if any made to Dept. of Mines and Geology, Govt. of Odisha.	The Proponent has made the payment as demand raised based on the Hon'ble Supreme Court order with an amount of INR 300,07,44,240/= vide online Treasury Challan Ref. No. 27DDE01C7E dated 26.12.2017. PP reported that Revision Application No.

		22/(19)/2018/RC-I is Pending before Ministry of Mines, Government of India, New Delhi against the demand of State Govt. of Odisha dated 24.10.2017 U/s 21(5) of MMDR Act, 1957 for mineral produced in excess of the lower of the approved limits under Mining Plan and Consent to Operate. The aforesaid demand has been stayed by the Ministry of Mines on 01.02.2018.
4.	Validity of mine lease.	As per the MMDR Amendment Act, 2015 the mining lease of Nadidih Iron and Manganese Mine has been extended and valid upto 31.03.2020. Copy of Supplementary lease deed is submitted by PP.
5.	Status of Mine whether working or not	The mine is in operation.
6.	Details of the past production of mines since its inception, duly authenticated by Dept. of Mines and Geology, Govt. of Odisha.	The details of the past production figure since 1980 to till current year is duly authenticated by the DDM, Koira has been submitted by the PP.

The Member Secretary has informed the Committee that the Ministry of Mines, vide Notification No.S.O.2817 (E) dated 22nd November, 2010 had appointed a Commission of Inquiry consisting Justice M.B. Shah, retired Judge of the Supreme Court of India, for the purpose of making an inquiry into mining of iron ore and manganese ore in contravention of the provision of various Statues and the rules and regulations issued there under, in various States including the State of Odisha. In view of Justice Shah Commission report (2013), the Ministry of Environment, Forest and Climate Change (MoEF&CC) has entrusted the work to CSIR-NEERI to conduct a Carrying Capacity Study with an objective to develop (i) a sustainable development plan for mining activities in the impact area of about 1000 sq.km. in the State of Odisha and (ii) an environmental management plan for current as well as future developmental scenario.

CSIR-NEERI conducted the study encompassing collection of primary data for various environmental components (viz. air, noise, water, soil/ land, biological and socio-economic aspects), collection and analysis of environmental quality data by different mines in the region, modelling for transport scenario and infrastructure need assessment, and meetings/workshops with different stakeholders (like Department of Steel & Mines, Directorate of Mines, IBM-HQ & Regional Office, SPCB, GSI, MoEF&CC, State Forest Dept. etc. as well as senior executives from respective mines). NEERI has submitted the report along with the recommendations. **The Committee deliberated the recommendations and is of the view that the recommendation of CSIR-NEERI report on carrying capacity study may be included in the TOR condition w.r.t. mining proposal of Iron Ore and/or manganese in the State of Odisha.**



Based on the information submitted and presentation made by PP, the proposal was **recommended for Standard TOR with a specific conditions as recommended by CSIR-NEERI on carrying capacity study as per Annexure II.**

**(2.13). Enhancement of Chhote Dongar Iron Ore Mine from 0.05 MTPA to 2.5 MTPA with Crushing and Screening by M/s Jayaswal Neco Industries Ltd., located at Village-Chottedongar, Tehsil & District-Narayanpur, Chhattisgarh (MLA 192.25Ha) (File No. J-11015/152/2005-IA-II(M) IA/CG/MIN/70103/2017) -Consideration of TOR**

The proposal of M/s Jayaswal Neco Industries Ltd. is for expansion of Chhote Dongar Iron Ore Mine from 0.05 MTPA to 2.5 MTPA with Crushing and Screening in the mine lease area of 192.25Ha. The Mine is located near village Chhotedongar of Forest Range Chhotedongar, Forest Division Narayanpur, Forest Circle Kanker, Tehsil Narayanpur, District Narayanpur, Chhattisgarh. The lease area falls under Survey of India Toposheet No 65 E/7 and is bounded by Latitudes 19° 26' 3.401" N to 19° 26' 9.044" N and Longitudes 81° 17' 25.404" E to 81° 17' 34.507" E. The area falls under the South Bastar region of Chhattisgarh.

PP reported that the Ministry has granted earlier EC vide no. J-11015/152/2005-IA-II(M), dated 5<sup>th</sup> February 2007 for mining of 50,000 TPA of iron ore. Forest clearance for 35.74ha has been obtained by the MoEF vide letter no. 8-31/99-FC, dated 18.01.2007 with a condition that, The project proponent will seek and obtain approval under FC Act for diversion of the entire forest land located within the mining lease within a period of 2 years from the date of issue of these guidelines, falling which the mining lease area will be reduced to the non-forest area plus the forest area for which the PP has been able to obtain the FC at the end of this time period. Also the State Government shall deposit NPV. PP reported that the mine is operating w.e.f. 01.04.2016. The CTE was issued by CECB on 07.04.2014 and CTO on 15.06.2015. The CTO was renewed on 07.03.2018. District Mining Officer vide letter dated 28.03.2018 has submitted the authenticated production details which is well within the EC capacity.

The Committee deliberated the NPV issues and noted that the FC Division of MoEFCC has issued guidelines for the mine lease area which involves the forest land. The Guidelines inter-alia mentioned that the User Agency was supposed to deposit NPV for entire Lease area, otherwise User Agency was to surrender the balance forest area and revised Mine lease was to be signed only for the area which stands diverted under Forest (Conservation) Act. The Committee **deferred** the proposal and is **of the view that State Government of Chhattisgarh may be requested to provide the status of revised mining lease, if any, and NPV for balance area for further necessary action.**

**(2.14). Mangrol-Tilakhera Limestone Mine (ML No. – 07/ 1997) with enhancement of production capacity from 1.60 MTPA to 2.40 MTPA by M/s J. K. Cement Works, located at Village(s) – Mangrol and Tilakhera, Tehsil – Nimbahera, District – Chittorgarh, Rajasthan (MLA 299.20 ha) ( File No. J-**

**11015/25/2011-IA-II(M); Proposal No. IA/RJ/MIN/73839/2018  
(Consultant: M/s Enkay Enviro Services Pvt. Ltd.) -Consideration of TOR**

The proposal of M/s J. K. Cement Works is for Mangrol-Tilakhera Limestone Mine (ML No. – 07/ 1997) with enhancement of production capacity from 1.60 MTPA to 2.40 MTPA in the mine lease area of 299.20 ha. The mine lease area is located at Village(s) – Mangrol and Tilakhera, Tehsil – Nimbahera, District – Chittorgarh, Rajasthan. The lease area falls under Survey of India Toposheet No 45 L/ 10 and is bounded by Latitudes 24°42'44.1"N to 24°41'33.0" N and Longitudes 74°41'00.0" E to 74°40'59.5" E.

Total mine lease area is 299.20 ha. First lease renewal granted by State Govt. for a period of 20 years from 09.05.1998 to 08.05.2018. PP reported that as per provision of MMDR Amendment Act' 2015, lease validity has been extended till 31.03.2030, vide State Govt. order no. AME/Nimba/CC-1/ML7/1997/2034 dated 27.02.2015. The Modified Mining Plan along with Progressive Mine Closure Plan has been approved from the Office of Regional Controller of Mines, IBM, Ajmer vide letter no. 584(4) (3) (1711)/ 2017 – RCOM – AJM/ 2246 dated 16/22.11.2017 for an area of 299.20 Ha for a period of 2018-19 to 2022-23. Consent to Operate on regular basis is being obtained and the current CTO has been obtained from RSPCB, Jaipur vide letter no. F (Mines)/ Chittorgarh (Nimbahera)/ 1868 (1)/ 2017 – 2018/ 2126 – 2130 dated 20.06.2017 which is valid up to 31.05.2022 for an area of 299.20 ha. Environment Clearance obtained from MoEF&CC, New Delhi vide letter no. J11015/25/2011-IA.II(M) dated 23.01.2014 for 1.6 MTPA for captive use. Total water requirement for the project will be 80 KLD.

PP reported that the mine is in operation since 1982 and got the 1<sup>st</sup> EC on 2014. The Committee noted that this is an existing mine and is being operated and accordingly PP needs to submit the authentic production details from Department of Mines and Geology, Govt. of Rajasthan to ascertain the violation issues, if any.

The Committee deliberated the issues and **deferred** the proposal and is of the view that the PP first needs to submit the following documents to ascertain the violation, if any, (i) Authenticated past production details from the State Department of Mines & Geology since inception of mine till date in light of the Common Cause Judgment pronounced by the Hon'ble Supreme Court on dated 02.08.2017; (ii) The Details of consents under Air/Water Act obtained by PP since start of mining operations along with document; (iii) Details of Lease and its renewal along with documents, and (iv) Details of Court case, if any.

**(2.15)-Devadari Iron Ore Mine of M/s KIOCL Limited for Mining of 2 MTPA Iron Ore and 500 TPA Manganese Ore/ 2 MTPA Beneficiation Plant including Crushing, Screening, Conveying/ML Area 470.40 ha in Devadari Range, Sandur Taluk, Bellary District, Karnataka State (IA/KA/MIN/72345/2018)**

The proposal of M/s KIOCL Limited is for an opencast mine of capacity 2 MTPA of Iron Ore (ROM) and 500 TPA of Manganese Ore. The project proponent also informed that the

company will establish 2 MTPA Beneficiation Plant including Crushing, Screening, Conveying at the mine site. Multilevel crushing, screening, grinding, gravity and magnetic separation, thickening will be carried out to produce CLO and Filtered concentrate from ROM feed of 2 MTPA. The mine is located on west of Donimalai, which is 10 km southeast of Sandur town and 70 km from Bellary town. The proposed area is bounded by latitudes 15°1'18.18627"N & 15°3'43.60179"N and longitudes 76°34'35.0174"E & 76°36'12.77452"E in Survey of India Toposheet no. 57 A/12. Highest elevation is 1000 m MSL & Lowest elevation is 720 m MSL.

The project proponent submitted that the Karnataka State Government has reserved an area of 470.40 ha in favour of M/s KIOCL Limited, for Iron and Manganese Ore in Devadari Range, Sandur Taluk, Bellary District, Karnataka State, vide notification no. CI 294 MMM 2015, Bengaluru dated 23.01.2017 in pursuance of the approval by Ministry of Mines, Govt. of India, New Delhi vide letter No. 4/3/2016-M. VI dated 05.12.2016. The Department of Mines & Geology vide letter No. DMG/MLS/Res.KIOCL/2016-17/10301 dated 13.02.2017 issued Letter of Intent.

The proposed mining lease area 470.40 ha. falls in Swamimalai Block, Kumaraswami Reserve Forest Range. The project proponent submitted that no wild life sanctuary occurs within 10 km of the mine periphery. Project Proponent has submitted application for Forest Clearance vide Proposal No. FP/KA/MIN/32568/2018 dated 16.03.2018.

The project proponent submitted that the total mineable reserves have been estimated to be 7,281,234 tonnes at an average Fe% of 58.04. Considering the present mineable reserve, the life of mine is calculated 7 years with mine capacity of 2 Mt/yr ROM productions. However, after the detailed exploration of entire mining lease area, the expected mineral reserve is likely to substantiate a mine life of minimum 20-30 years.

The project proponent submitted that Mechanized Opencast mining method deploying shovel dumper combination will be used. There will be Controlled blasting in the pits to keep the ground vibration level within permissible limit. Rock breaker will be used so that no secondary blasting is required. Ultimate depth of Mining will be 20-120 m below the general surface level. It will not intersect the general ground water level. The high explosive requirement per month will be to the tune of 62.5 tonnes.

The proposal was considered in the EAC meeting held on 23-24 April 2018. Based on the details furnished by the project proponent and the detailed presentation made during the meeting, the committee after due deliberation **recommended** the proposal for the grant of ToR for 2 MTPA Iron Ore (ROM) & 500 TPA Manganese & Wet Beneficiation Plant including Crushing, Screening, Conveying for a capacity of 2 MTPA.

**2.16: J-11015/29/2018-IA.II(M): Nandgaon-Ekodi Limestone Mine (Mining Lease Area 369.52 ha) with Production Capacity of 2.0 Million TPA of limestone falling in villages Nandgaon, Ekodi, Bhoysgaon and Kawthala, Taluka- Korpana, District- Chandrapur (Maharashtra) by M/s Ambuja Cement Ltd.- ToR Regarding**

**IA/MH/MIN/73281/2018**

The proposal of M/s Ambuja Cement Limited is for Nandgaon-Ekodi Limestone Mine (Mining Lease Area 369.52 ha) with Production Capacity of 2.0 Million TPA of limestone. About 0.8 MTPA of wastes and rejects are likely to be handled. Hence, excavation @ 2.8 million TPA of total material is involved. Additionally, top soil handling @ 0.1 million TPA level shall be there. Hence, a total material handling @ 2.9 million TPA is involved. The mine lease is located at Villages- Nandgaon, Ekodi, Bhoygaon and Kawthala, Taluka- Korpana, District- Chandrapur (Maharashtra). Study area falls within the Survey of India Topo-sheet No. E44B1 (56 M1), E44B5 (56 M 5). The Project is located in Seismic zone-II. The Latitude and Longitude of the mine site fall between 19<sup>0</sup> 50' 23.42" N to 19<sup>0</sup> 52' 12.81" N and 79<sup>0</sup>10' 40.36" E to 79<sup>0</sup> 11' 59.87" E respectively.

2. The PP applied online for grant of ToR on 01.03.2018 and submitted the Form-1, Pre-feasibility Report, and copy of Letter of Intent. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", Project or Activity 1(a) as the mining lease area is more than 50 Ha.

3. The Proponent submitted that Letter of Intent (LoI) for grant of mining lease over an 369.52 ha has been issued in favor of M/s. Ambuja Cements Limited by Government of Maharashtra vide letter no MMN-0717/C.R.64/IND-9 dated 8.11.2017 for a period of 50 years through e-auction process.

4. The Proponent submitted that M/s. Ambuja Cements Limited has its existing Integrated Cement Plant with Cement Production Capacity (4.75 Million TPA), Clinker Production Capacity (2.85 Million TPA) Captive Power Plant (70 MW) at village- Uparwahi, Tehsil- Rajura and Korpana, District- Chandrapur (Maharashtra). The requirement of limestone as a prime raw material for cement manufacturing is met from its existing **three limestone mines**. Reserves at the existing mines are not sufficient for existing plant capacity and proposed expansion considering 50 years plant life. Nandgaon Ekodi limestone deposit has relatively better quality of limestone as compared to existing limestone leases. Limestone from this mine will be judiciously blended with limestone of existing leases to conserve mineral and increase mine life. In view of limited limestone reserves in existing leases and to enhance the life of plant M/s. Ambuja Cements Limited (Unit: Maratha Cement Works) has proposed Nandgaon- Ekodi Limestone mine (ML Area: 369.52 ha.) with Production Capacity of 2 Million TPA at Villages Nandgaon, Ekodi, Bhoygaon, and Kawthala Taluka Korpana, District Chandrapur (Maharashtra)

5. The Proponent submitted that the total Mining lease area is 369.52 ha out of which 4.03 ha area is Govt waste land and 365.49 ha area is others (Pvt Land). Mining operation will be opencast utilizing Heavy Earth Moving Machines (HEMMs) following conventional drilling & blasting approach. Loading will be done by Hydraulic Excavators. Crusher of 1200 TPH capacity along with wobbler and screening system will be installed in the ML area. The ROM and crushed limestone will be transported to the Maratha Cement Works (MCW) plant (23 kms road distance in south direction) at village Upparwahi, Taluka Rajura and Korpana,

District Chandrapur by road. The total water requirement for the proposed project will be 200 KLD, which will be met through Groundwater / Rainwater harvesting / Mine sump water (As and when developed)

6. The Proponent submitted that No National Park, Wild Life Sanctuaries, Tiger Reserves, Wildlife Corridors, etc. are there within 10 km radius of the study area.

7. The proponent submitted that one season primary Baseline Data collection for Summer Season (March to May-2018) has been started.

8. The Proponent submitted that the total cost of the project is Rs 180 Crores (including land cost). The Capital Cost for Environment Protection is Rs 3.0 crore with Recurring cost of Rs. 30 Lakhs per annum. The Proponent submitted that no litigation is pending against the project. The Project proponent submitted that 141 persons will be engaged for the project.

9. The proposal was considered in EAC Meeting held on 23-24 April, 2018. The KML file was analyzed on Google and DSS. Based on the information furnished and discussion held, the Committee observed that KML file submitted by PP is not correct, there are agricultural lands within the mining lease area and details pertaining to agricultural pattern and project affected families are not available with PP, there is a seasonal nallha passing through the mining lease area. The Committee also observed that proponent applied under category 1 (a) of EIA Notification 2006 and asked the proponent that, is there any beneficiation activity involved in the project. The Proponent submitted that beneficiation will be carried out in the mining lease area. The Committee thus was of the view that the proposal cannot be considered in the present form as PP did not apply under category 2(b) of EIA Notification 2006 and **rejected** the proposal in the present form and ask the PP to apply afresh.

**2.17: J-11015/30/2018-IA.II(M): Limestone Mine (Area: 52.353 Ha.) with Production Capacity of 1.0 million TPA limestone and 0.5 million TPA of waste at Villages Kundla, Suvakheda, Morka & Segwa, Tehsil Jawad, District Neemuch, Madhya Pradesh by M/s Ultra Tech Cement Ltd-ToR Regarding**

**IA/MP/MIN/73278/2018**

The proposal of M/s **Ultra Tech Cement Ltd**(UTCL) is for seeking ToR for conducting EIA studies for Proposed Limestone Mine (Area: 52.353 Ha.) with Production Capacity of 1.0 million TPA limestone and 0.5 million TPA of waste at Villages Kundla, Suvakheda, Morka & Segwa, Tehsil Jawad, District Neemuch, Madhya Pradesh. The mining lease area is located on Survey of India Topo-sheet no. G43U14. The area falls between Latitude - 24°33'1.63" N to 24°34'11.61" N Longitude - 74°51'21.3" E to 74°52'0.8" E.

2. The PP applied online for grant of ToR on 01.03.2018 and submitted the Form-1, Pre-feasibility Report, and copy of Letter of Intent (LoI). As per EIA Notification dated 14th

September, 2006 as amended from time to time, the project falls under Category "A", Project or Activity 1(a) as the mining lease area is more than 50 Ha.

3. The Proponent submitted that the Mineral Resources Department of Madhya Pradesh granted prospecting license vide order No.F2-17/2009/12/2 dated 15.03.2013 .The prospecting license deed was executed on 19.06.2013. The applicant applied entire PL area for grant of Mining Lease **under rule 7(1) of Mineral (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016** over 52.353 ha on 17.09.2015.A letter of Intent is issued by Government of Madhya Pradesh; Department of Mineral resources vide letter no F 3-2/2016/12-1 dated 30.03.2017over an area of 52.353 ha under **section 10 A (2) (b) and 8A (2) of MMDR Amendment Act 2015.**

4. The Proponent submitted that the Mining plan along with the Progressive Mine Closure Plan has been approved by the Indian Bureau of Mines, Jabalpur vide letter no-MP/Neemuch/Limestone/MPLN/G-19/17-18/2770, dated 08.08.2017.

5. The Proponent submitted that there is no forest land involved in the mining lease. No National Park, Wild Life Sanctuaries, Tiger Reserves, Wildlife Corridors, etc. are there within 10 km radius of the study area; however Two Reserved Forests i.e. Jharoti Reserved forest (~7.5 km in NNE) and Juna Bir Reserve Forest (~7.0 km in NE) are there within 10 km radius of the project site.

6. The Proponent submitted that the Ultratech Cement Limited (Unit: Vikram Cement Works) has proposed this Limestone mining project in order to meet the requirement of Limestone for the manufacturing of Cement in the Captive Cement Plant located at Vikram Nagar, P.O. Khor, District –Neemuch (Madhya Pradesh). Excavated limestone will be transported to crushers located in existing captive mines of the company i.e. Vikram Cement Limestone Mine-I &II and crushed material will be conveyed from crusher of Vikram Cement Limestone Mines to plant by covered conveyor belt. The total mine lease area is 52.353 ha out of which **27.788 ha is Govt land & 24.565 ha private land.** The mining will be done using **opencast Mechanized mining method with drilling, controlled blasting,** haulage and transportation. The total water requirement for the proposed project will be **145 KLD, which** will be sourced from harvested rainwater of the existing Mines sump of VCLM I, II and from proposed ML area sump in the future.

7. The Proponent submitted that the total cost of the project is Rs 17 crores. The Capital Cost for Environment Protection is Rs 1.2 crore with Recurring cost of Rs 18.40 Lakhs per annum. The proponent submitted that no litigation is pending against the project and the expected employment generation from the project is for **83** persons.

8. The proposal was considered in EAC Meeting held on 23-24 April, 2018. The KML file was analyzed with Google and DSS. Based on the information furnished and discussion held, the Committee **recommended for** prescribing the Standard ToR for total 1.5 million tonnes of material handling which include production of 1.0 Million TPA of limestone and 0.5 Million TPA of wastes/reject for undertaking detailed EIA study. The Committee also prescribed **additional condition** that proponent should submit the detailed plan for afforestation and

green belt development which includes time bound target for plantation, density of plantation, species to be planted, manpower to be engaged, provision of nursery and budget earmarked for plantation.

**2.18: J-11015/31/2018-IA.II (M): Boulder, Gravel and Sand (Minor Mineral) Mining project at Village- Shamtoo, Mining lease area of 45 ha.(18, 00,000 TPA) in District- Panchkula, Haryana by M/s Ganesh Enterprises -ToR Regarding**

**IA/HR/MIN/72297/2018**

The proposal of **M/s Ganesh Enterprises** is for production of 18 Lakh TPA of Boulder, Gravel and Sand minor mineral from **Dangri River Bed** having mining lease area of **45 Ha** located at Village Shamtoo, District – Panchkula, Haryana. The mining lease area is located on Survey of India Topo-sheet no. H43K14. The area falls between Latitude - 30°37'6.574" N to 30°37'40.71" N Longitude - 76°58'52.34" E to 76°59'29.10" E. The Mining lease area falls in seismic zone IV.

2. The PP applied online for grant of ToR on 01.03.2018 and submitted the Form-1, Pre-feasibility Report, and copy of Letter of Intent (LoI). As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "B", Project as the mining lease area is less than 50 Ha. Further, the Proponent has submitted a **cluster certificate issued by Mining Officer, Mines & Geology Department, Panchkula vide memo no 4126 dated 23.08.2018** wherein it has mentioned that there are two mining lease viz. Sukhdarshanpur Block/PKL B-13 & Shamtoo-1 Block/PKL B-11 within 500 meters radius of this mining lease. The Proponent also submitted the District Survey Report wherein the area of the above mining leases was mentioned as 37.38 Ha & 46.50 Ha respectively. Thus, the total area of the cluster is 128.88 Ha. Further, as per S.O 141(E) dated 15.01.2016 the Cluster of mine leases of area  $\geq 25$  hectares with individual lease size  $< 50$ ha should be considered as a B1 Category Project. **The proponent also submitted the letter no. 5081 dated 05.03.2018 issued by the Chief Wildlife Warden, Panchkula, Haryana wherein it has mentioned that Khol Hai Raitan Wildlife sanctuary (protected areas) is around at a distance of 2.5 Km from this mining project and mining lease is outside the notified Eco-Sensitive zone around Khol Hai Raitan Wildlife sanctuary.** Further, as per EIA notification, 2006, "Any project or activity specified in Category 'B' is treated as Category 'A', if located in whole or in part within 5 km from the boundary of (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries". In the instant case the **Khol Hai Raitan Wildlife Sanctuary** is **within 2.5 km** from the mine lease boundary and thus the project is considered as **Category 'A'** project.

3. The Proponent submitted that the Letter of Intent (LoI) for the mining lease area of 45 ha has been granted vide Memo No. DMG/HY/Cont./Shamtoo-2 Block/PKL B-12/2017/7040 dated 16.11.2017 by the Director, Mines & Geology; Haryana for a period of 10 years. The

mining lease is a part of Dangri river bed falling in Panchkula district Haryana. The total mine lease area is Gram Panchayat **non-perennial barren river bed**. The proposed mining lease neither involves any acquisition of private land nor any structures/asset shall be rehabilitated. No diversion of any reserved and protected forest land is involved. **The proponent submitted the letter no. 5081 dated 05.03.2018 issued by the Chief Wildlife Warden, Panchkula, Haryana wherein it has mentioned that Khol Hai Raitan Wildlife Sanctuary (protected areas) is around at a distance of 2.4 Km from this mining project and mining lease is outside the notified Eco-Sensitive zone around Khol Hai Raitan Wildlife Sanctuary.** The Proponent submitted that proposed mine lease area falling in Tehsil Panchkula of District Panchkula and no critically polluted area within 10 km from project boundary.

4. The proponent submitted that total available geological reserve is 27, 00,000 MT out of which 7,95,000 MT is blocked reserved which cannot be mined as a part of sustainable sand mining. The total available reserve of the mineral is 19, 05,000 MT, of which 18, 00,000 MT per annum has been proposed for mining. The mining will be done by opencast semi-mechanized method utilizing Heavy Earth Moving Equipment (HEMM).

5. The proponent submitted that the baseline study of different environmental attributes was carried out during **December 2017 to February 2018**. The baseline concentration of ambient air and noise quality was found within standard limits of CPCB. Ground water and soil quality was also collected to assess the impact due to proposed mining. Method of mining will be adopted opencast semi mechanized method. Total no of working days will be 300 days in a year. The mining shall be carried out only in daytime. Estimated water requirement of the project is 25 KLD (Drinking purpose 1 KLD, Domestic purpose 5 KLD, Dust suppression 15 KLD and 4 KLD will be used for Plantation). No liquid waste is anticipated to be generated due to the proposed project. Only domestic waste water will be generated from mine offices which will be disposed of in septic tank via soaking pits. **The Member Secretary informed the Committee that the Ministry has issued an O.M No. J-11013/41/2006-IA-11 (I) (Part) dated 29.08.2017, wherein, it was mentioned that "The baseline data used for the preparation of EIA/EMP reports may be collected at any stage, irrespective of the request for ToR or the issue thereof. However, such a baseline data and the public consultation should not be older than 3 years, at the time of submission of the proposal, for grant of Environmental Clearance, as per ToRs prescribed."**

6. The proponent submitted that the estimated project cost shall be Rs 450 Lakh and employment generation will be approximately 78 persons.

7. The proposal was considered in EAC Meeting held on 23-24 April, 2018. The KML file was analyzed on Google and DSS. As per DSS the distance of **Khol Hai Raitan Wildlife Sanctuary** is 4.7 KM. Based on the information furnished and discussion held, the Committee made the following observations:

- a) The Committee asked the proponent about the basis of calculation of production quantity and area where mining will be carried out. The proponent was not able to explain/show the exact area of mining. The Committee was thus of the view that the



proponent should submit the plan clearly showing the area where mining will be carried out. The proponent should also submit the basis of production calculation.

- b) The project is located on non-perennial river bed and prior replenishment study report is required to be submitted at the time of consideration of projects for the environmental clearance to ascertain the annual excavation quantity. Thus, the proponent should submit the methodology for conducting the replenishment study.
- c) The production capacity of the mine as reported by PP is 18 Lakh TPA and thus required around 450 tippers/day. The Committee asked the proponent that how they will transport the material and what would be the route of transportation. The Proponent submitted that they will submit the detailed transport plan.
- d) The Proponent has already started collecting **baseline data during December 2017 to February 2018 as per Ministry's O.M No. J-11013/41/2006-IA-11 (I) (Part) dated 29.08.2017** and the Committee agreed to the same.
- e) The Committee observed that the Ministry has notified the Eco-Sensitive Zone around Khol Hai Raitan Wildlife Sanctuary vide its notification No S.O 3308 (E) dated 24.10.2016 and as the proponent has submitted a Certificate from DFO wildlife regarding no Ecological Sensitive Zone (ESZ) within the mine lease area. The Committee also observed that Ministry has issued O.M No. J-11013/41/2006-IA.II (M) dated 20.08.2014 wherein it has mentioned that *"Over a period of time, this Ministry has notified number of Eco-Sensitive Zones (ESZs) around Pas. Many of the development activities are prohibited/regulated within these ESZs as per notification issued for their constitution. It may be noted that, for regulated activities requiring prior ECs within such ESZs prior clearance of Standing Committee of NBWL will be required in view of aforesaid Supreme Court order dated 04.12.2006, the only difference being that the distance of 10KM gets substituted by boundary limit of such ESZs"*. In the instant case the project is located around 2.5 KM from boundary of Khol Hai Raitan Wild life sanctuary as certificated by Chief Wildlife Warden, Panchkula, Haryana and outside the ESZ Boundary thus the project does not required clearance from Standing Committee of National Board of Wildlife (NBWL).
- f) The Committee observed that the method of mining is shown and semi-mechanized and was of the view that as the proponent will use Heavy Earth Moving Machinery for the said project thus the method of mining should be considered as mechanized in this case.

8. In view of the above, the committee **deferred** the proposal of **M/s Ganesh Enterprises** for production of 18 Lakh TPA of Boulder, Gravel and Sand minor mineral from **Dangri River Bed** from mining lease area of **45 Ha** located at Village Shamtoo, District – Panchkula, Haryana and was of the view that proposal may be considered after submission of the following information.

- a) Plan and Sections clearly showing the area of mining/mining zone. The agricultural fields should not be included in the mining zone and only river bed area should be taken in account while determining the mining zone.
- b) After determining the mining zone production quantity to be calculated and the same needs to be submitted along with the sections based on which the production quantity is calculated.
- c) The project is located on non-perennial river bed and prior replenishment study report is required to be submitted at the time of consideration of projects for the environmental clearance to ascertain the annual excavation quantity. Thus, the proponent should submit the methodology for conducting the replenishment study.
- d) Based on the production quantity, transportation planning needs to be done and detailed transportation plan and route need to be submitted.
- e) A plan needs to be submitted clearly showing the mining leases in the upstream and downstream with their area and quantity.
- f) The proponent should verify the KML file.

**2.19: J-11015/32/2018-IA.II(M): Boulder Gravel and Sand Minor Mineral Mining project at Kot and Dabkori Village Panchkula District, Haryana by M/s Krishna Enterprises( 31.59 Ha & 12,50,000 TPA)-ToR Regarding .**

**IA/HR/MIN/72516/2018**

The proposal of **M/s Krishna Enterprises** is for production of 12.5 Lakh TPA of Boulder, Gravel and Sand minor mineral from **Dangri River Bed** having mining lease area of **31.59 Ha** located at Village Kot & Dabkori, District – Panchkula, Haryana. The mining lease area is located on Survey of India Topo-sheet no. H43K14. The area falls between Latitude - 30<sup>0</sup>38'14.61" N to 30<sup>0</sup>39'11.14" N Longitude - 76<sup>0</sup>57'16.64" E to 76<sup>0</sup>57'48.78" E. The Mining lease area falls in seismic zone IV.

2. The PP applied online for grant of ToR on 28.03.2018 and submitted the Form-1, Pre-feasibility Report, and copy of Letter of Intent (LoI). As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "B", Project as the mining lease area is less than 50 Ha. Further, the Proponent has submitted a **cluster certificate issued by Mining Officer, Mines & Geology Department, Panchkula vide memo no 4125 dated 28.03.2018** wherein it has mentioned that there are no mining lease within 500 meters radius of this mining lease. **The proponent also submitted the letter no. 5079 dated 05.03.2018 issued by Chief Wildlife Warden, Panchkula, Haryana,**

**wherein, it has mentioned that Khol Hai Raitan Wildlife Sanctuary (protected areas) is around at a distance of 2.5 Km from this mining project and mining lease is outside the notified Eco-Sensitive zone around Khol Hai Raitan Wildlife Sanctuary.**

Further, as per EIA notification, 2006, "Any project or activity specified in Category 'B' is treated as Category 'A', if located in whole or in part within 5 km from the boundary of (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries". In the instant case the **Khol Hai Raitan Wildlife Sanctuary** is **within 2.5 km** North from the mine lease boundary and thus the project is considered as **Category 'A'** project.

3. The Proponent submitted that the Letter of Intent (LoI) for the mining lease area of 31.59 Ha has been granted vide Memo No. DMG/HY/Cont./Kot Block/PKL B-8&9/2017/7038 dated 16.11.2017 by the Director, Mines & Geology, Haryana for a period of 10 years. The mining lease is a part of Dangri River Bed falling in Panchkula District, Haryana. The total mine lease area is a Gram Panchayat River Bed. No diversion of any reserved and protected forest land is involved. **The proponent submitted the letter no. 5081 dated 05.03.2018 issued by the Chief Wildlife Warden, Panchkula, Haryana wherein it has mentioned that Khol Hai Raitan Wildlife Sanctuary (protected areas) is around at a distance of 2.5 Km from this mining project and mining lease is outside the notified Eco-Sensitive zone around Khol Hai Raitan Wildlife Sanctuary.**

4. The proponent submitted that total available geological reserve is 18, 95,400 MT out of which 5, 61,000 MT is blocked reserved which cannot be mined as a part of sustainable sand mining. Thus the total available mineable reserve is 13, 34,400 MT, of which 12, 50,000 MT per annum has been proposed for mining. The mining will be done by opencast semi-mechanized method utilizing Heavy Earth Moving Equipment (HEMM).

5. The proponent submitted that baseline study for different environmental attributes has been started from 1.12.2017. Environmental attributes such as ambient air quality, meteorology surface and ground water quality, soil quality, noise quality and study of flora and fauna has been considered for the baseline data generation as per standard terms of references. Method of mining will be adopted opencast semi mechanized method. Total no of working days will be 300 days in a year. The mining shall be carried out only in daytime. Estimated water requirement of the project is 20 KLD (Drinking purpose 2 KLD, Domestic purpose 4 KLD, Dust suppression 10 KLD and 4 KLD will be used for Plantation). No liquid waste is anticipated to be generated due to the proposed project. Only domestic waste water will be generated from mine offices which will be disposed of in septic tank via soaking pits. **The Member Secretary informed the Committee that the Ministry has issued an O.M No. J-11013/41/2006-IA-11 (I) (Part) dated 29.08.2017, wherein, it was mentioned that "The baseline data used for preparation of EIA/EMP reports may be collected at any stage, irrespective of the request for ToR or the issue thereof. However, such a baseline data and the public consultation should not be older than 3 years, at the time of submission of the proposal, for grant of Environmental Clearance, as per ToRs prescribed."**

6. The proponent submitted that the estimated project cost shall be ₹ 375 Lakh and employment generation will be approximately 110 persons.

7. The proposal was considered in EAC Meeting held on 23-24 April, 2018. The KML file was analyzed on Google and DSS. As per DSS the distance of **Khol Hai Raitan Wildlife Sanctuary** is 891.58 Meters to 2.04 Km. Based on the information furnished and discussion held, the Committee made following observations:

- a) The Committee asked the proponent about the basis of calculation of production quantity and area where mining will be carried out. The proponent was not able to explain/show the exact area of mining. The Committee was thus of the view that the proponent should submit the plan clearly showing the area where mining will be carried out. The proponent should also submit the basis of production calculation.
- b) The Committee also observed that some portion of the mining lease area is not falling on the river bed rather it is on the agricultural field. The Committee did not agree with the proposal of PP for mining in agricultural fields and was of the view that mining in agriculture land will affect the hydrology and water & moisture regime of the area. The Committee thus asked the proponent to verify the KML file as it not falling completely on the river bed.
- c) The project is located on non-perennial river bed and prior replenishment study report is required to be submitted at the time of consideration of project for the environmental clearance to ascertain the annual excavation quantity. Thus, the proponent should submit the methodology for conducting the replenishment study.
- d) The production capacity of the mine as reported by PP is 12.5 Lakh TPA and thus required around 260 tippers/day considering transportation by 25 tonne tippers. The Committee asked the proponent that how they will transport the material and what would be the route of transportation. The Proponent submitted that they will submit the detailed transportation plan.
- e) The Proponent has already collected **baseline data during December 2017 to February 2018 as per Ministry's O.M No. J-11013/41/2006-IA-11 (I) (Part) dated 29.08.2017** and committee agreed with the same.
- f) The Committee observed that the Ministry has notified the Eco-Sensitive Zone around Khol Hai Raitan Wildlife Sanctuary vide its notification No S.O 3308(E) dated 24.10.2016 and as the proponent has submitted a Certificate from DFO wildlife regarding no Ecological Sensitive Zone (ESZ) within the mine lease area. The Committee also observed that Ministry has issued O.M No. J-11013/41/2006-IA.II (M) dated 20.08.2014 wherein it has mentioned that *"Over a period of time, this Ministry has notified number of Eco-Sensitive Zones (ESZs) around Pas. Many of the development activities are prohibited/regulated within these ESZs as per notification issued for their constitution. It may be noted that, for regulated activities requiring*

*prior ECs within such ESZs prior clearance of Standing Committee of NBWL will be required in view of aforesaid Supreme Court order dated 04.12.2006, the only difference being that the distance of 10KM gets substituted by boundary limit of such ESZs". In the instant case the project is located around 2.5 KM from the boundary of Khol Hi Raitan Wildlife Sanctuary as certificated by Chief Wildlife Warden, Panchkula, Haryana and outside the ESZ , thus the project does not required clearance from Standing Committee of National Board of Wildlife (NBWL).*

- g) The Committee observed that the method of mining is shown and semi-mechanized and was of the view that as the proponent will use Heavy Earth Moving Machinery for the said project and thus the method of mining for this project should be consider as mechanized.

8. In view of the above, the committee **deferred** the proposal of **M/s Krishna Enterprises** for production of 12.5 Lakh TPA of Boulder, Gravel and Sand minor mineral from **Dangri River Bed** having mining lease area **31.59 Ha** located at Village Kot & Dabkori, District – Panchkula, Haryana and was of the view that proposal may be considered after submission of following information.

- a) **Plan and Sections clearly showing the area of mining/mining zone. The agricultural fields should not be included in the mining zone and only river bed area should be taken in account while determining the mining zone.**
- b) **After determining the mining zone production quantity to be calculated and same needs to be submitted along with the sections based on which the production quantity is calculated.**
- c) **The project is located on non-perennial river bed and prior replenishment study report is required to be submitted at the time of consideration of projects for the environmental clearance to ascertain the annual excavation quantity. Thus, the proponent should submit the methodology for conducting the replenishment study.**
- d) **Based on the production quantity transportation planning needs to be done and detailed transportation plan and route need to be submitted.**
- e) **A plan needs to be submitted clearly showing the mining leases in the upstream and downstream with their area and quantity.**
- f) **The proponent should verify the KML file.**

**2.20: J-11015/33/2018-IA.II(M): Minor Mineral River Bed mining project at Village Shamtoo and Rattewali, Tehsil & District Panchkula , Haryana over an area of 46.50 Ha with capacity of 20,00,000 TPA by M/s Starex Minerals-ToR Regarding**

## IA/HR/MIN/73803/2018

The proposal of **M/s Starex Minerals** is for production of 20.0 Lakh TPA of Boulder, Gravel and Sand minor mineral from **Dangri River Bed** having mining lease area of **46.50 Ha** located at Village **Shamtoo and Rattewali**, District – Panchkula, Haryana. The mining lease area is located on Survey of India Topo-Sheet no. H43K14. The area falls between Latitude - 30°37'42.26" N to 30°38'33.59" N Longitude - 76°59'13.61" E to 76°59'18.54" E. The Mining lease area falls in seismic zone IV.

2. The PP applied online for grant of ToR on 29.03.2018 and submitted the Form-1, Pre-feasibility Report, and copy of Letter of Intent (LoI). As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "B", Project as the mining lease area is less than 50 Ha. The proponent submitted the letter No 91 dated 10.04.2018 issued by Chief Wildlife Warden, Haryana wherein it has mentioned that the project is located at a distance of 3.10 KM from the Khol Hi Raitan Wildlife Sanctuary (protected areas). Further, as per EIA notification, 2006, "Any project or activity specified in Category 'B' is treated as Category 'A', if located in whole or in part within 5 km from the boundary of (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries". In the instant case the **Khol Hai Raitan Wildlife Sanctuary** is **within 3.10 km** from the mine lease boundary and thus the project is considered as **Category 'A'** project.

3. The Proponent submitted that the Letter of Intent (LoI) for the mining lease area of 45 ha has been granted vide Memo No. DMG/HY/Cont./Shamtoo-2 Block/PKL B-11/2018/904 dated 23.02.2018 by the Director, Mines & Geology, Haryana for a period of 9 years. The mining lease is a part of Dangri River Bed falling in Panchkula district Haryana. No diversion of any reserved and protected forest land is involved. **The proponent submitted the letter no. 91 dated 10.04.2018 issued by the Chief Wildlife Warden, Panchkula, Haryana wherein it has mentioned that Khol Hi Raitan Wildlife Sanctuary (protected areas) is around at a distance of 3.1 Km from this mining project and mining lease is outside the notified Eco-Sensitive zone around Khol Hi Raitan Wildlife Sanctuary.**

4. The proponent submitted that total available geological reserve is 27, 90,000 MT and minable reserves is 20, 55,000 MT, of which 20, 00,000 MT per annum has been proposed for mining. The method of mining is open cast by semi-mechanized means. Boulder, gravel, and sand will be excavated in layers up to a depth of 3.0 m in a riverbed and 9 m in agricultural field. Mining will be done by deploying earthmovers like excavators, /poclain, loaders for excavation and loading and transportation of mineral will be through trucks. The mining will be limited to only 75% of width of river. The mining area is divided into two blocks (upstream and downstream). The proposed machinery will be JCB/excavator, dumper, water tanker, light weight vehicle, maintenance van. Total no of working days will be 268 days in a year.

5. The proponent submitted that in this mine the nature of waste rock obtained will be weathered into low grade weathered mineral which is exposed with top soil/alumina. Waste will be generated during mine development work. Estimated water requirement of the project is 15 KLD (Drinking purpose, Domestic purpose, Dust suppression and for Plantation). No liquid waste is anticipated to be generated due to the proposed project.

6. The proponent submitted that the estimated project cost shall be ₹ 100 Lakh and employment generation will be approximately 74 persons.

7. The proposal was considered in EAC Meeting held on 23-24 April, 2018. The KML file was analyzed on Google and DSS. As per DSS the distance of **Khol Hi Raitan Wildlife Sanctuary** is 3.13 KM. Based on the information furnished and discussion held, the Committee made the following observations:

- a) The Committee asked the proponent about the basis of calculation of production quantity and area where mining will be carried out. The proponent could not able to explain/show the exact area of mining. The Committee was thus of the view that the proponent should submit the plan clearly showing the area where mining will be carried out. The proponent should also submit the basis for production calculation.
- b) The project is located on non-perennial river bed and prior replenishment study report is required to be submitted at the time of consideration of projects for the environmental clearance to ascertain the annual excavation quantity. Thus, the proponent should submit the methodology for conducting the replenishment study.
- c) The production capacity of the mine as reported by PP is 20 Lakh TPA and thus required around 300 tippers/day. The Committee asked the proponent that how they will transport the material and what would be the route for transportation. The Proponent was not able to justify the transportation route and submitted that they will submit the detailed transport plan.
- d) The Proponent has already started collecting **baseline data during March 2018 to May 2018 as per Ministry's O.M No. J-11013/41/2006-IA-11 (I) (Part) dated 29.08.2017** and the Committee agreed with the same.
- e) The Committee observed that the Ministry has notified the Eco-Sensitive Zone around Khol Hi Raitan Wildlife Sanctuary vide its notification No S.O 3308(E) dated 24.10.2016 and as the proponent has submitted a Certificate from DFO wildlife regarding no Ecological Sensitive Zone (ESZ) within mine lease area. The Committee also observed that Ministry has issued O.M No. J-11013/41/2006-IA.II (M) dated 20.08.2014 wherein it has mentioned that *"Over a period of time, this Ministry has notified number of Eco-Sensitive Zones (ESZs) around Pas. Many of the development activities are prohibited/regulated within these ESZs as per notification issued for their constitution.*

*It may be noted that, for regulated activities requiring prior ECs within such ESZs prior clearance of Standing Committee of NBWL will be required in view of aforesaid Supreme Court order dated 04.12.2006, the only difference being that the distance of 10KM gets substituted by boundary limit of such ESZs".* In the instant case the project is located around 2.5 KM from boundary of Khol Hi Raitan Wildlife Sanctuary as certificated by Chief Wildlife Warden, Panchkula, Haryana and outside ESZ, thus the project does not required clearance from Standing Committee of National Board of Wildlife (NBWL).

- f) The Committee observed that the method of mining is shown and semi-mechanized and was of the view that as the proponent will use Heavy Earth Moving Machinery for the said project, thus method of mining for this project should be consider as mechanized.
- g) The Committee observed that the proponent has proposed that boulder, gravel, and sand will be excavated in layers up to a depth of 3.0 m in a riverbed and 9 m in agricultural field. The Committee did not agree with the proposal of PP for mining in agricultural fields and was of the view that mining in agriculture land will affect the hydrology and water & moisture regime of the area.

8. In view of the above, the committee **deferred** the proposal of **M/s Starex Minerals** is for production of 20.0 Lakh TPA of Boulder, Gravel and Sand minor mineral from **Dangri River Bed** having mining lease area of **46.50 Ha** located at Village **Shamtoo and Rattewali**, District – Panchkula, Haryana and was of the view that the proposal may be considered after submission of the following information.

- a) **Plan and Sections clearly showing the area of mining/mining zone. The agricultural fields should not be included in the mining zone and only river bed area should be taken in account while determining the mining zone.**
- b) **After determining the mining zone production quantity to be calculated and same needs to be submitted along with the sections based on which the production quantity is calculated.**
- c) **The project is located on non-perennial river bed and prior replenishment study report is required to be submitted at the time of consideration of projects for the environmental clearance to ascertain the annual excavation quantity. Thus, the proponent should submit the methodology for conducting the replenishment study.**
- d) **Based on the production quantity transportation planning needs to be done and detailed transportation plan and route need to be submitted.**
- e) **A plan needs to be submitted clearly showing the mining leases in the upstream and downstream with their area and quantity.**



**f) The proponent should verify the KML file.**

**g) Cluster Certificate from Department of Mines & Geology, Haryana as per S.O. 141 (E) dated 15.01.2016.**

**2.21: J-11015/34/2018-IA.II (M): Kalali and Kalyana Mine (64.40 Ha) for production of Minor minerals (Stone & Associate Mineral) 58.0 Lakh TPA (ROM) by M/s Ridhi Sidhi KSM Resources -JV located at Khasra No.-223 min, 224 to 228 & 72, Village Kalali, Tehsil-Dadri, District:-Charkhi-Dadri, Haryana-ToR Regarding**

**IA/HR/MIN/73862/2018**

The proposal of M/s RidhiSidhi KSM Resources-JV is for production of 58.0 Lakh TPA for mining of stone along with associated minor minerals from the mining lease area of 64.40 Ha situated at Khasra No.-223 min, 224 to 228 & 72, Village Kalali, Tehsil-Dadri, District:- Charkhi-Dadri, Haryana. The mining lease area is located on Survey of India Topo-sheet no. H43W2. The area falls between Latitude - 28°33'2.999" N to 28°33'1.930" N Longitude - 76° 11'15.646" E to 76°11'15.303" E. The Mining lease area falls in seismic zone III.

2. The PP applied online for grant of ToR on 31.03.2018 and submitted the Form-1, Pre-feasibility Report, and copy of Letter of Intent (LoI). As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", Project as the mining lease area is more than 50 Ha.

3. The Proponent submitted that the Letter of Intent (LoI) for the mining lease area of 64.40 Ha has been granted vide Memo No.DMG/HY/ML/Kalali & Kalyana/2018/1491 dated 26.03.2018 by the Director, Mines & Geology, Haryana for a period of 18 years. The total mine lease area is a Gram Panchayat stony wasteland.

4. The proponent submitted that total available geological reserve is 12, 19, 42,500 MT and mineable reserve is 10, 97, 09,250 MT. The life of mine is 18 years. The proponent submitted that Open-cast mechanized method of mining utilizing Heavy Earth Moving Equipment (HEMM) with drilling and blasting will be adopted for this project. The mining method involves breaking the rocks with explosives, loading the material with excavators and haulage with dumpers.

5. The Proponent submitted that soil will be generated, containing fine powder of quartzite; the same will be sorted out and both will be stacked in separate dump yards. The dump may attain a maximum height of 6 meters with gentle slopes of 30°. Two walls and drains around dumps will be prepared to safeguard the dumps. The length of the soil stack yard and dumping yard walls will be 360m and 480m all along with height of one meter. Rest of the height will be made in the coming years as per the requirements of dumps. The thickness of the wall will be half meter. Around 25% of material shall be used in the crusher installed at the site and the rest of the material will be supplied to nearby crushers those are

in the close vicinity of the leasehold area. The Proponent submitted that 3.2 KLD of waste water will be generated which will be treated in septic tanks followed by soak pits.

6. The proponent submitted that no forest land and protected area is located within 10 km of the mining site.

7. The proponent submitted that baseline study for different environmental attributes has been started from March 2018. Environmental attributes such as ambient air quality, meteorology surface and ground water quality, soil quality, noise quality and study of flora and fauna has been considered for the baseline data generation as per standard terms of references. Estimated water requirement of the project is 50 KLD (Drinking & Domestic purpose 4 KLD, Dust suppression 36 KLD and 10 KLD for Plantation). The proponent submitted that 3.2 KLD of waste water will be generated which will be treated in septic tanks followed by soak pits. **The Member Secretary informed the Committee that the Ministry has issued an O.M No. J-11013/41/2006-IA-11 (I) (Part) dated 29.08.2017, wherein, it was mentioned that "The baseline data used for preparation of EIA/EMP reports may be collected at any stage, irrespective of the request for ToR or the issue thereof. However, such a baseline data and the public consultation should not be older than 3 years, at the time of submission of the proposal, for grant of Environmental Clearance, as per ToRs prescribed."**

8. The proponent submitted that the estimated project cost shall be Rs784 Lakh and employment generation will be approximately 101 persons.

9. The Proponent submitted that for the same mining lease area the Ministry of Environment Forest & Climate had granted Environmental Clearance to M/S Associate Soapstone Distributing Co. Pvt Ltd vide letter No J-11015/56/2014-IA.II(M) dated 3.08.2015 for mining of 60 Lakh TPA (ROM) of Stone from mining lease area of 60.40 Ha. The Proponent submitted that M/S Associate Soapstone Distributing Co. Pvt Ltd surrendered the mining lease and Department of Mining & Geology, Haryana now granted fresh LoI through e-auction.

10. The proposal was considered in EAC Meeting held on 23-24 April, 2018. The KML file was analyzed on Google and DSS. Based on the information furnished and discussion held, the Committee **recommended** the proposal for grant of standard Term of Reference (ToR) as per Annexure-1 for production of 58.0 Lakh TPA (ROM) for mining of stone along with associated minor minerals from the mining lease area of 64.40 Ha situated at Khasra No.-223 min, 224 to 228 & 72, Village Kalali, Tehsil-Dadri, District:-Charkhi-Dadri, Haryana with following additional conditions:

**a) The Proponent should submit the Final District Survey Report with a letter from the concerned authority to the effect that DSR submitted to the Ministry is prepared as per Appendix-X of S.O. 141 (E) dated 15.01.2016.**

**b) Detailed Hydrogeological Studies need to be submitted.**

**c) Proponent should identify the associated minerals, if any, and same needs to be included in the LoI, keeping the total excavation of the material same as 58.0 Lakh TPA (ROM). Otherwise the proposal will be considered for production of stone only.**

**d) Mineralogical Composition of all the Minerals needs to be submitted**

**e) Test Reports of Free Silica Concentration need to be submitted.**

**2.22: J-11015/58/2017-IA.II (M) Pagara-Jhiriya Limestone Deposit Project of M/s Dalmia Cement (Bharat) Ltd. is situated near Village-Pagra, Jhiriya Kothar, Jhiriya Bajpain & Jhiriya Koparihan, Tehsil- Amarpatan, District- Satna (Madhya Pradesh) for an area of 395.965ha with proposed capacity of 2.41MTPA-ToR Regarding IA/MP/MIN/64735/2017**

The proposal submitted by M/s Dalmia Cement (Bharat) Ltd. is for seeking ToR for conducting EIA studies for Pagara-Jhiriya Limestone Deposit Mine of 2.41 Million TPA (ROM) in mine lease area of 395.965 Ha. The mine is located near village –Pagra, Jhiriya Kothar, Jhiriya Bajpain & Jhiriya Koparihan, Tehsil- Amarpatan, District Satna (Madhya Pradesh). The lease area falls between latitudes of 24°26'41.5"N to 24°28'18.30"N and longitudes of 81°09'42.60"E to 81°12'27.60"E and is located on Survey of India Topo-sheet no. 63H/3.

2. The proposal was earlier considered for grant of ToR in EAC meeting held during June 28, 2017 wherein the Committee, based on the submissions of PP, noted that the project lease comprises of more than 90% agricultural land on which the population from nearby villages is dependent for their livelihood. The mining lease area includes 3villages, over 350 houses and about 1500 population. The operation of mine in such an area shall not only involve loss of livelihood for villagers but shall also be hazardous for day-to-day life of villagers due to blasting, mechanized mining operations, transportation of mineral, generation of pollution etc. The Committee concluded that the adverse social and environmental aspects of the project outweigh the economic benefits from the project. Hence, the Committee, after careful deliberations, rejected the proposal for grant of ToR.

3. The PP vide its letter dated 18.08.2017 and 21.08.2017 represented before the Competent Authority in the Ministry mentioning that it has already incurred significant expenditure on the project and many projects of similar nature have been granted ToR in the recent past. Further, Ministry vide its O.M. dated 29.08.2014 had prescribed specific mitigation measures to deal cases involving habitation related issues. Hence, one more opportunity may be given to explain the issues to EAC in light of the O.M. dated 29.08.2014. Thus, the proposal was considered in EAC Meeting held on 29-30 August, 2017 wherein the committee deferred the proposal and sought additional information. The proponent vide letter dated 22.09.2017 submitted the information and the proposal was considered in EAC Meeting held on 23-24 October, 2017 wherein the Committee deferred the proposal for want of following information:

- a) Clarification from the State Mines and Geology Department that no mining has been carried out by the PP in the Mining lease area.
- b) Revised Surface Geological Plan & section clearly showing the area to be mined as suggested during the meeting along with provision of safety zone/ barriers from human habitation.
- c) Submit conceptual mining plan for the revised area.
- d) In respect of each block PP should provide the area of the block, mineral reserve, grade of limestone, depth of mining etc.
- e) Transportation route of the mineral from each block to the crusher.

4. The Proponent submitted the above information vide its letter dated 30.03.2018 and the proposal is placed in EAC Meeting held on 23-24 April, 2018. The proponent submitted following during the presentation:

**a) Clarification from the State Mines and Geology Department that no mining has been carried out by the PP in the Mining lease area.**

The proponent submitted the letter no 882/खनिज/2018 dated 14.03.2018 issued by Mining Office, Collector office Satna wherein it has mentioned that as per official record a case has been filed on 14.02.2017 against 3<sup>rd</sup> party Shri Sanjay Singh ,S/o Shri Lallu Singh, village Jhinna for said old illegal mining. No other mining activity has been carried out after filling the case. The Sarpanch of Jahria-Koprihan and Pagra villages have confirmed that no mining activity has been initiated by Dalmia Cement (Bharat) Ltd (DCBL) in the lease area. **The Committee agreed with the submission of PP.**

**b) Revised Surface Geological Plan & section clearly showing the area to be mined as suggested during the meeting along with provision of safety zone/ barriers from human habitation.**

The Proponent submitted the revised Surface Geological Plan & section clearly showing the area to be mined as suggested during the meeting along with provision of safety zone/ barriers from human habitation. **The Committee agreed with the same.**

**c) Submit conceptual mining plan for the revised area.**

The Proponent submitted the conceptual plan of the revised mine working area. **The Committee agreed with the same.**

**d) In respect of each block PP should provide the area of the block, mineral reserve, grade of limestone, depth of mining etc.**

The Proponent submitted area of the block, mineral reserve, grade of limestone, depth of mining block wise. **The Committee observed that the total area of the 7 Blocks (Block no 1, 3,4,5,6 &7) is 185.57 Ha and total reserves are 35.33 Million Tonnes. In addition to this, 2.0 Ha area is also proposed for installation of the Crusher.**

**e) Transportation route of the mineral from each block to the crusher.**

The Proponent submitted the Transportation route of the mineral from each block to the crusher. **The Committee agreed with the same.**

5. Based on the discussion held and documents submitted by PP the Committee **recommended** the proposal for prescribing standard Term of Reference (ToR) for conducting EIA Study for excavation of 2.41 Million TPA of material including [ Limestone:1.5 MTPA, Soil: 0.56 MTPA (348000 cum) and OB: 0.35 MTPA (176000 cum)]from **187.57 Ha**[185.57 Ha permissible mining area and 2 Ha for setting up of crusher of 1200 TPH]out of total mine lease area of 395.965 Ha located at village –Pagra, JhiriyaKothar, Jhiriya Bajpain & Jhiriya Koparihan, Tehsil- Amarpatan, District Satna (Madhya Pradesh).The committee also recommended following additional conditions:

- a) In the mining plan it should be clearly mentioned that mining shall be carried out in **187.57 Ha**[185.57 Ha permissible mineral extraction area and 2 Ha for setting up of crusher of 1200 TPH] only. In plan and section of mining plan the area not recommend by EAC [**208.395 Ha**] should be mentioned as no mining area. In the no mining area only green belt development, afforestation and other protective activities could be carried out.
- b) Detailed hydrogeological studies to be carried out.
- c) Proponent should submit the detailed plan for afforestation and green belt development which includes time bound targets for afforestation and green belt development, density of plantation, species to be planted, manpower to be engaged, budget and provision of nursery.
- d) The possibility of installing Overland Belt Conveyor needs to be ascertained in order to avoid transportation of mineral through road near the habitation.

**2.23: J-11015/74/2017-IA-II (M): Proposal of Gumgaon & Khodegaon Mine (126.84 Ha) for production of 1, 02,000 Tonne (ROM) Manganese ore from underground mine located in Gumgaon, Khodegaon and Tegai Village, Saoner Tehsil, Nagpur District, Maharashtra by M/s Moil Gumgaon-Tor Regarding**

**IA/MH/MIN/67094/2017**

The proposal of the M/s MOIL Limited is for underground mining of Manganese ore with production capacity of 1, 02,000 TPA (ROM) in an area of 126.48 Hectares. The project is

located at village Gumgaon, Khodegaon and Tegai, Tehsil: Saoner, District: Nagpur, Maharashtra. The mine lease area falls in the Survey of India Topo-Sheet No. 55 K/15 and 55 O/3. The latitudes and longitudes of the Mine lease fall between Latitude: - N 21° 24' 24.33" to N 21° 23' 46.88" and Longitude: - E 78° 57' 32.02" to E 78° 59' 40.99"

2. The project proposal was considered during the EAC meeting held during 29-30 August 2017 for consideration of the ToR. Based on the information provided by the project proponent and the analysis of the KML file the committee noted that the mine lease area is in two parts separate from each other and the proponent do not have surface rights over the area between the two parts of the lease. The committee noted that only one ventilation/winding shaft is proposed in the existing mining lease area and the second shaft is proposed in the other mining lease of M/S MOIL Ltd. As the lease boundary of the other Mine lease and location of second shaft were not demarcated on the KML file the committee after due deliberation deferred the proposal for the grant of Terms of Reference (ToR) and requested the proponent to submit the following documents before the proposal can be reconsidered. (i). A letter from the State Mines and Geology department revalidating the LoI. (ii). Surface Plan and KML file clearly demarcating the lease boundaries and location of the shafts. (iii) Proposed Ventilation Plan (iv) Need based survey of the number of families going to be affected by the project.

3. The Proponent submitted the above information vide letter No MOIL/Nagpur/Project/Gumgaon Mine/2017-18 dated 18.12.2017 and the proposal was placed in EAC Meeting held during 26-27 February, 2018 but the PP did not attend the meeting. The proposal is now placed in EAC Meeting held on 23-24 March, 2018 wherein proponent submitted the following:

**a) A letter from the State Mines and Geology department revalidating the LoI.**

The proponent submitted that the Government of Maharashtra has issued grant of LOI dated 06.04.2016 for aforesaid area for submission of approved mining plan within six months. M/s MOIL Ltd has submitted an approved copy of mining plan of the aforesaid area dated 03.10.2016 which has also been submitted to MoEF&CC. Bank Guarantee has also been submitted according to rules at Indian Bureau of Mines (IBM). The approved mining plan has been issued by IBM with stipulated condition no 18 as per Letter reference NGP/MN/ MPLN-1174/NGP-2016 after which MoEF EIA approval only lease will be executed as per rule of Government of Maharashtra-Directorate of Geology & Mining, Nagpur. Henceforth revalidating of LoI is not applicable. **The Committee observed that the proponent has submitted the approved mining plan within six months and the lease deed will only be executed after getting Environmental Clearance from MoEF&CC. Further, as no other time limit/restriction is mentioned in LoI issued by Govt. of Maharashtra the same may be considered as valid LoI.**

**b) Surface Plan and KML file clearly demarcating the lease boundaries and location of the shafts.**

The Proponent submitted the Surface Plan and KML file clearly demarcating the lease boundaries and location of the shafts. **The Committee observed that the mining lease area of 126.84 Ha is not contiguous, but it is in two parts ML-Part-I (76.34 Ha) and ML-Part-II (50.50 Ha). The proponent proposed two shafts, one in ML-Part-I (ventilation/winding shaft) and another ventilation/winding shaft in ML-Part-II.** The proponent also submitted that a ventilation shaft is also proposed in the existing mine of M/s MOIL i.e ML-Part-III (35.97 Ha) and this ventilation shaft will be connected with the ventilation network of **ML-Part-I (76.34 Ha)**. To connect the ventilation network a ventilation drift will be made from ML-Part-1 to ML-Part-III which will pass through a nallah located between these two mining pits. **The Committee observed that ML-Part-1 to ML-Part-III is not contiguous and a nallah is separating these two mining leases. Further, the M/s MOIL does not have surface right over the nallah and also it is not a part of the mining lease. The Committee observed that M/S Moil have obtained the permission from DMG, Maharashtra to work below the Nallah but as per section 4 of MMDR, Act 2015 "No person shall undertake any reconnaissance, prospecting or mining operations in any area, except under and in accordance with the terms and conditions of a reconnaissance permit or of a prospecting license or, as the case may be, a mining lease, granted under this Act and the rules made thereunder".** Thus the Committee was of the view that either the M/S MOIL Ltd includes the nallah as a part of their mining lease or it should restrict its working within the mining lease area only. The M/s MOIL Ltd agreed to restrict its mine working within the lease area only and submitted that an undertaking in this regard will be submitted to the Ministry. **The Committee also observed that ML-Part-I (76.34 Ha) and ML-Part-II (50.50 Ha) are also not contiguous.** The proponent submitted that mining will be done in only ML-Part-I (76.34 Ha) and ML-Part-II (50.50 Ha) will be utilized only for infrastructure development like mine office, Colony, Labour Quarter etc.

**c) Proposed Ventilation Plan needs to be submitted.**

The proponent submitted the ventilation plan and explained it to the Committee. The proponent also explained the revised ventilation plan as per suggestion of the Committee wherein ventilation shafts will be installed in the ML-Part-1 (76.34 Ha) only.

**d) Need based survey of the number of families going to be affected by the project.**

The proponent submitted that the details of persons having land within the mining lease area Khasra-wise. PP submitted that there 298 families having their land within the mining lease area. The proponent submitted that detailed study report and R&R Plan of PAFs will be submitted along with EIA/EMP Report. **The Committee agreed to the same.**

4. Based on the discussion held and documents submitted the committee **recommended** the proposal for the grant of the Standard Terms of Reference (ToR) as per **Annexure-1**

for underground mining of Manganese ore with production capacity of 1, 02,000 TPA (ROM) from a ML area of 126.48 Ha [mining will be carried out only in Southern Pit having an area 76.34 Ha and Northern Pit having an area of 50.50 Ha will be utilized only for infrastructure development like mine office, Colony, Labour Quarter etc.] located at village Gumgaon, Khodegaon and Tegai, Tehsil: Saoner, District: Nagpur, Maharashtra. The Committee also prescribed the additional conditions:

- a) Needs based survey of the Project Affected Families (PFAs) needs to be submitted and activity wise budgetary provisions needs to be submitted for the same.
- b) Mining Plan needs to be modified as per recommendation of the Committee.
- c) Detailed Hydro-geological study needs to be submitted.

**2.24 J-11015/247/2007-IA.II (M): Amendment of EC to Kesari Phansawde Iron ore Mine (MLA: 386.99 ha.) located at villages: Kesari & Phansawde in Sawantwadi Taluk in Sindhudurg District in Maharashtra by M/s Smt Neela V. Dempo & Shri Shrinivas V. Dempo. Online Ref: IA/MH/MIN/8105/2007-EC Amendment**

The proponent M/s Smt Neela V Dempo and Shri Shrinivas V Dempo was granted Environmental Clearance (EC) vide letter No.J11015/247/2007-IA-II (M) dated 11th August 2008 read along with corrigendum dated 14th May 2009 for iron ore project, Kesari-Phansawade Iron Ore Mine over a Mine lease area of 386.99 ha and production capacity of 3.0 MTPA.

2. The proposal was earlier considered in EAC Meeting held on 23-25 November, 2016 wherein the committee deferred the proposal and sought additional information. The PP submitted the above information on 28.02.2018 and the proposal was again considered in EAC Meeting held on 22-23 March, 2018 wherein the committee deferred the proposal and sought following information:

- a) The proponent should prepare the conservation plan for schedule-1 species in consultation with the Chief Wildlife Warden and submit a detailed conservation plan, activity wise budgetary allocation and proof of submission of the Conservation Plan to the Chief Wildlife Warden.
- b) Copy of the approved modified mining plan needs to be submitted
- c) Justification for omitting the specific condition mentioned at SL .No. (iii) i.e. *Primary survey of flora and fauna shall be carried out and data submitted to the Ministry within six months*& (iv) i.e. *To ensure that any damage to the biodiversity is effectively contained, non-mineralized zone(s) between any two mine pits as also the area in which occurrence of minerals are thin shall be kept undisturbed.*



3. The Proponent submitted the above information on 05.04.2018 and the proposal is considered in EAC Meeting held on 23-24 April, 2018. During the presentation the proponent submitted the following:

**a) The proponent should prepare the conservation plan for schedule-1 species in consultation with the Chief Wildlife Warden and submit a detailed conservation plan, activity wise budgetary allocation and proof of submission of the Conservation Plan to Chief Wildlife Warden.**

The proponent submitted that detailed Fauna & Flora conservation Plan along with activity wise budgetary allocation was submitted to the office of the Principal Chief Conservator of Forests Maharashtra state Nagpur, 'Vanbhavan', Ramgiri Road, Civil Nagpur 440001 and the same was approved by the Principal Chief Conservator of Forests (WL) vide his letter No. Desk-23(2)/Survey/case No.120/4502/2012-13 dated 27-02-2013.

**b) Copy of the approved modified mining plan needs to be submitted.**

The copy of the approved mining plan was submitted earlier as a part of documents pertaining to revised application for amendment of Environment Clearance and the same is also uploaded on the portal of MoEF& CC on 7th March 2018. **The Member Secretary informed the committee that the mining plan uploaded by the PP was not approved copy as the pages of the mining plan are not having stamp of IBM. PP now submitted the approved copy of the Modified Mining Plan approved vides LR. No MP/MECH-96(MAH)/GOA/2016-17 dated 19.08.2016. The Committee observed that the previously area under non-forest land was 74.78 Ha and now it is 99.43 Ha, justification for increase in non-forest area needs to be provided by the PP. The Committee also noted that there is a change in land use, as the area of mining has changed due to surrender of mining lease area. Thus, the PP needs to submit a comparison of the land use pattern, as the para 2 of previous EC, wherein, the land use pattern was mentioned will also change. In order to justify the area PP has shown a revenue plan of the mining lease area. The Committee observed that survey no. 49 as per revenue plan is falling within the mining lease area and it is not owned by PP. The Committee thus was of the view that mining plan needs to be modified as the lease boundary needs to be corrected. The PP is also required to carry out other modification in the mining plan due to change in the lease boundary.**

**c) Justification for omitting the specific condition mentioned at SL .No. (iii) i.e. *Primary survey of flora and fauna shall be carried out and data submitted to the Ministry within six months*& (iv) i.e. *To ensure that any damage to the biodiversity is effectively contained, non-mineralized zone(s) between any two mine pits as also the area in which occurrence of minerals are thin shall be kept undisturbed.***

**a) Specific condition (iii) primary survey of flora and fauna shall be carried out and data submitted to the ministry within 6 months:** The Proponent submitted that primary survey of flora and fauna has been carried out as a part of Fauna & Flora conservation Plan and submitted the hard copy of the same. **The Committee observed that the condition cannot be omitted completely and was of the view that area needs to re-surveyed after every two years to know the impact on flora and fauna due to mining activity and report of the same needs to be submitted to MoEF&CC.**

**b) Specific condition (iv) : To ensure that any damage to the biodiversity is effectively contained, non-mineralized zone(s) between any two mine pits as also the area in which occurrence of minerals are thin shall be kept undisturbed.**

The proponent submitted that the deposit occurs in the form of, extensive outcrop of BMQ in strata bound nature of regular habit having planer exposure width, ranging from 150m to 300m. The said outcrops were traced along the strike direction over a length of 1000m i.e section 500N to 1500N. Such BMQ outcrops are found at a highest elevation of 410MSL on section 1100N and continue to outcrop at a lowermost elevation of 180MSL, predominantly in the southern part of lease area. Because of such disposition of the ore body, whole of the western part of the lease area will be under excavation for winning of mineral. Whereas, the eastern part of the lease hold area shall be utilised for ancillary activities like process plant, water reservoir and other infrastructure etc. The conceptual plan along with geological plan as well as the table showing post mining land use pattern is furnished in the Mining Plan. Further, it may be noted that an area of 96.8136Ha shall be utilised for mining and allied activities. All such area shall be reclaimed and rehabilitated by suitable plantation except an area of 19.6686 Ha which shall be meaningfully utilised for rainwater harvesting/ water reservoir. Further, an area of 2.6164Ha only shall remain untouched mainly on account of the statutory barrier of 7.5m from the lease boundary, which justifies the deletion of the above clause. **The Committee was of the view that this condition cannot be omitted completely and proponent should ensure that minimum area should be used for ancillary activities to avoid any damage to the biodiversity of the area.**

4. The Committee also observed that as the mining lease area is reduced from 386.99 Ha to 99.43 Ha the land use pattern mentioned in the previous EC letter is also required to be amended as per the approved modified mining plan.
5. Based on the discussion held and documents submitted by PP the Committee **deferred** the proposal and was of the view that proposal may be considered after submission of following information:

- a) Justification for increase in non-forest area from 74.78 Ha to 99.43 Ha and also submit all the supporting documents in this regard.
- b) Verify the mining lease boundary and modify the Mining Plan accordingly.
- c) Provide comparative of land use pattern & justification for water requirement for amendment in para 2 of pervious EC.

**2.25: J-11015/119/2014-IA.II (M): Silica sand and Quartzite Mine over an extent of 116.27 ha located at Village, Muddanur Mandal, YSR (Kadapa) District Andhra Pradesh by M/S. SHAIK JAMAL VALI- Extension of Validity of ToR.**

**IA/AP/MIN/22849/2014**

The Proposals of **M/S. SHAIK JAMAL VALI** is for extension of validity of Term of Reference (ToR). The PP applied online on 1.12.2017 with Form-1 and Justification for extension of validity of the ToR. Further, as per Ministry's O.M No J-11013/41/2006-IA.II (I) Part dated 29.08.2017 wherein it has mentioned that the validity of ToRs for projects/activities (except for River Valley and HEP Projects), for submission of EIA/EMP reports shall be three years and the validity period can be extended by the concerned Regulatory Authority for a maximum period of one year without referring the proposal to the EAC/SEAC concerned, **provided an application is made by the applicant before expiry of the validity period, together with an updated Form-1 and proper justification and there is no change in terms and conditions of the ToRs. After the lapse of validity, such extension will need EAC/SEAC consideration.**

2. In the instant case the ToR was issued vide letter No. J-11015/119/2014-IA.II (M) dated 15.07.2014 and was valid till 14.07.2017. As the PP applied for extension of ToR after the expiry of the validity of ToR the proposal was previously considered in EAC Meeting held on 26-27 January, 2018 wherein the committee deferred the proposal as PP did not attend the meeting.

3. The proponent submitted the updated Form-1 and in his justification submitted that due to his illness he could not concentrate on the EIA Study. The proposal is now placed in EAC Meeting held on 23-24 April. The Committee observed that the ToR after extension of the validity will be valid till 14.07.2018 and asked the PP that whether he is able to complete the PH and submit EIA/EMP report within validity period or not. The Proponent submitted that he will complete the EIA Studies within this period. Based on the discussion held and documents submitted by the PP the Committee **recommended** the proposal for extension of validity ToR issued vide letter No. J-11015/119/2014-IA.II (M) dated 15.07.2014 for one more year, i.e. up to 14.07.2018 on the same terms and conditions on which previous ToR was granted.

**The meeting ended with thanks to the Chair.**

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**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 PM<sub>10</sub>, 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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**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”**

- 1) Department of Steel & Mines, Govt. of Odisha should prepare 5 years regional plan for annual iron ore requirement from the state, which in turn shall be met from different mines/zones (e.g. Joda, Koira..) in the state. Accordingly, sustainable annual production (SAP) for each zone/mine may be followed adopting necessary environmental protection measures.
- 2) The expansion or opening of new manganese ore mines may be considered only when the actual production of about 80% is achieved. Further, the mines that have not produced Mn ore for last two years and have no commitment in the current year as well; EC capacity in such cases may be reviewed. The Department of Steel & Mines, Govt. of Odisha shall submit the Annual Report on this issue to the MoEF&CC for further necessary action.
- 3) Analysis of baseline environmental quality data for the year 2014 and 2016 indicates that existing mining activities appear to have little / no potential impact on environmental quality, except on air environment, which was mainly due to re-suspension of road dust. Therefore, all the working mines can continue to operate with strict compliance to monitoring of environmental quality parameters as per EC and CTE/CTO conditions of the respective mine, and implementation of suggested measures for control of road dust and air pollution. Odisha State Pollution Control Board has to ensure the compliance of CTE/CTO. Regional office of the MoEF&CC, Bhubaneswar shall monitor the compliance of the EC conditions. Regional office of the Indian Bureau of Mines (IBM) shall monitor the compliance of mining plan and progressive mine closure plan. Any violation by mine lease holder may invite actions per the provisions of applicable acts.
- 4) Considering the existing environmental quality, EC capacity, production rate, iron ore resources availability and transport infrastructure availability, the share of Joda and Koira sector works out to be 70% and 30% respectively for the existing scenario for the year 2015-16. However, for additional EC capacity, it can be 50:50 subject to commensurate infrastructure improvement (viz. SOTM, pollution free road transport, enhancement of rail network etc.) in the respective regions.
- 5) Continuous monitoring of different environmental quality parameters as per EC and CTE/CTO conditions with respect to air, noise, water (surface & ground water) and soil quality in each region shall be done. The environmental quality parameters

should not indicate any adverse impact on the environment. Monitoring within the mines should be done by individual mine lease holders, whereas outside the mine lease area, monitoring should be done by the Govt. of Odisha through various concerned departments/ authorized agencies. Various monitoring/ studies should be conducted through national reputed institutes, NABET/ MoEF&CC accredited laboratories/organizations. The reports submitted by individual mine lease holders and study reports prepared by other concerned departments/agency for each of the regions should be evaluated and examined by SPCB/ MoEF&CC.

- 6) Construction of cement concrete road from mine entrance and exit to the main road with proper drainage system and green belt development along the roads and also construction of road minimum 300 m inside the mine should be done. This should be done within one year for existing mines and new mine should have since beginning. The concerned departments should extend full support; wherever the land does not belong to the respective mine lease holders. The Department of Steel & Mines, Govt. of Odisha should ensure the compliance and should not issue the Mining Permits, if mine lease holder has not constructed proper cement concrete road as suggested above.
- 7) In view of high dust pollution and noise generation due to road transport, it is proposed to regulate/guide the movement of iron and manganese ore material based on the EC capacity of the mines. Accordingly, ore transport mode has been suggested, as given below in Table.

Table : EC Capacity based Suggested Ore Transport Mode (SOTM)

<b>Code</b>	<b>EC</b>	<b>Suggested Ore Transport Mode</b>
SOTM 1	≥ 5 MTPA	100% by private railway siding or conveyor belt up to public railway siding or pipeline for captive mines and 70% for non-captive mines
SOTM 2	Between 3 and <5 MTPA	Minimum 70% by public railway siding, through conveyor belt and maximum 30% by road - direct to destination or other public railway siding or above option
SOTM 3	Between 1 and < 3 MTPA	Minimum 70% by public railway siding and maximum 30% by road - direct to destination or by other public railway siding or above options
SOTM 4	<1 MTPA	100 % by 10/17 Ton Trucks or above options

It is mentioned by State Govt. of Odisha that currently about 45% of the iron ore is despatched using rail network and progressively it will be increased to about 60%

by rail/slurry over a period of 5 years, taking into account time required to set up more railway sidings.

In view of present ore transport practices and practical limitations, all the existing mines should ensure adoption of SOTM within next 5 years. New mines or mines seeking expansion should incorporate provision of SOTM in the beginning itself, and should have system in place within next 5 years.

However, the State Govt. of Odisha shall ensure dust free roads in mining areas wherever the road transportation of mineral is involved. The road shoulders shall be paved with fence besides compliance with IRC guidelines. All the roads should have proper drainage system and apart from paving of entire carriage width the remaining right of way should have native plantation (dust capturing species). Further, regular maintenance should also be ensured by the Govt. of Odisha.

Transportation of iron & manganese ore through river (jetty) to nearest Sea port (Sea cargo option) may be explored or connecting Sea ports with Railway network from the mines to be improved further so that burden on existing road and rail network and also pollution thereof can be minimized.

Progress on development of dust free roads, implementation of SOTM, increased use of existing rail network, development of additional railway network/conveyor belt/ pipelines etc. shall be submitted periodically to MoEF&CC.

Responsibility: Department of Steel & Mines, Govt. of Odisha; Time Period: 5 Years for developing railway/ conveyor belt facilities

- 8) Development of parking plazas for trucks with proper basic amenities/ facilities should be done inside mine. This should be done within one year for existing mines and new mines should have since beginning. Small capacity mines (in terms of lease area or production) not having enough space within the mine lease areas should develop parking plaza at a common place within the region with requisite facilities. Responsibility: Individual Mine Lease Holders; Time Period: 1 Year
- 9) Construction of NH 215 as minimum 4 lane road with proper drainage system and plantation and subsequent regular maintenance of the road as per IRC guidelines. Construction of other mineral carrying roads with proper width and drainage system along with road side plantation to be carried out. Responsibility: Department of Steel & Mines with PWD / NHAI Time Period: 2 Years.
- 10) Regular vacuum cleaning of all mineral carrying roads aiming at "Zero Dust Re-suspension" may be considered. Responsibility: PWD / NHAI/ Mine Lease Holders ; Time Period: 3 months for existing roads.

- 11) Expansion of existing mines and new mines should be considered after conducting recent EIA Study (as per the provisions of EIA Notification 2006, as amended time to time) with proper justification on demand scenario for iron ore requirement and availability of pollution free transport network in the region. Responsibility: IBM, Department of Steel & Mines and MoEF&CC, New Delhi.
- 12) **Mine-wise Allocation of Annual Production:** In case the total requirement of iron ore exceeds the suggested limit for that year, permission for annual production by an individual mine may be decided depending on approved EC capacity (for total actual dispatch) and actual production rate of individual mine during last year or any other criteria set by the State Govt., i.e. Dept. of Steel & Mines. Department of Steel and Mines in consultation with Indian Bureau of Mines-RO should prepare in advance mine-wise annual production scenario as suggested in Table, so that demand for iron ore can be anticipated, and actual production/dispatch does not exceed the suggested annual production.

Table : Allocation of Production to Different Mines for 5 Years (as per approved Mining Plan)

Mine	EC Capacity	Suggested Annual Production (MT)				
		2016-17	2017-18	2018-19	2019-20	2020-21
		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Mine 1	X1					
Mine 2	X2					
Mine 3	X3					
Mine n	Xn					
<b>Total</b>	<b>160 + dX</b>	<b>105</b>	<b>129</b>	<b>153</b>	<b>177</b>	<b>201</b>
<b>Next year allocation = Average of EC Capacity and Last year production</b>						

- 13) **Expansion of Existing Mines having Validity up to 2020:** In view of implementation of MMDR Act 2015, wherein many non-captive mines are expected to be closed by March 2020, total iron ore production scenario has been. It is expected that the non-captive mines having validity till 2020 shall try to maximize their production (limited to EC capacity) in the remaining period. Further, depending upon availability of iron ore resources, these mines may also seek expansion of EC capacity. It may be noted here that total EC capacity of existing 25 working mines having validity upto 2020 is about 85 MTPA, whereas actual production from these mines has been only 44.677 MT (52.6%) during 2015-16 and 57.07 MT (67.1%) during 2016-17. Also, it is expected that these mines would not even be able to achieve ore production as per existing EC capacity till March 2020. Therefore, these existing mines should go for production to the fullest extent to meet the requisite demand from the State. However, where EC limit is exhausted, application for expansion may be considered. Further, the EC process (i.e. Grant of TOR, Baseline data collection, Mining plan/ scheme approval, Public hearing, preparation of EIA/EMP Report. Appraisal by the EAC and grant of EC) takes about one year time. Under such

circumstances, it is suggested that further applications for grant of TOR or grant of EC for expansion of production capacity of the mine should be considered for those existing mines, which have exhausted their capacity subject to consideration of all environmental aspects. Responsibility: Department of Steel & Mines and MoEF&CC, New Delhi.

14) **Sustained Iron Ore Production beyond 2020:** Considering the implementation of MMDR Act 2015, total production of iron ore in Odisha State is anticipated to be about 111 MT during 2016-17 (actual production was – 102.663 MT), 136 MT during 2017-18, 146 MT during 2018-19 and 146 MT during 2019-20. Then there will be substantial drop in total production (to the tune of 73 MT during 2020-21 onwards) due to closure of mines, which are valid up to 2020. Therefore, in order to maintain operation/sustained growth of downstream industries, iron ore mining in the region needs to be continued at a sustainable rate. The State Govt. through Department of Steel and Mines should initiate appropriate action to ensure continued availability of iron ore from the region, as per suggested sustainable annual production

15) **Reserves Estimation**–Mining Plan and Exploration: Appropriate actions (geo-technical investigation for qualitative and quantitative resource estimation & other preparations for auction of mines), may be initiated taken into account the existing working mines, and the mines which were operational at some point of time (but closed presently due to various reasons). The total iron ore reserves/ resources available within the total lease area of each mine should be estimated by State Govt./NMET/ GSI (or any other approved agency) with respect to: (i) Total lease area of mine (surface), (ii) Maximum depth to which resources could be available, (iii) Resources below the ground water table (if intersected), (iv) Reserves are to be estimated as per UNFC code with respect to quantity and quality (% Fe content), (v) Maximum mining rate and area for auction (after 2020) will be calculated based on total resources available and proposed life of mine leading to closure of mine in a stipulated time period.

Responsibility: Department of Steel & Mines, IBM and GSI; Time frame: 1 year for the mines to be auctioned for next 2 years. The above mentioned organizations shall ensure the compliance with respect to timelines for implementations.

16) Depending upon availability of extractable iron ore resources within a mine, mining below the ground water table may be permitted after conducting necessary geological and hydro-geological study by GSI and requisite approval from the CGWB/CGWA (Central Ground Water Board/Authority). This can be explored at least in few mines on trial/pilot basis. Further, within a mine, it will be desirable to operate one pit at a time, and next pit should be opened after extracting maximum possible resources from the first pit, so that the exhausted pit can be used for back filling/ storing of low grade iron ore. However, depending upon the quantity and/or quality of iron/manganese ore, other mine pits in the same mine lease may also be opened for sustainable scientific mining, as per approved mining plan/scheme of mining by

IBM. The Department of Steel & Mines, Govt. of Odisha should initiate the pilot project so that minerals are fully utilized.

- 17) **Commercial Utilization of Low Grade Ore:** R&D studies towards utilization of low-grade iron ore should be conducted through research/academic institutes like IMMT, Bhubaneswar, NML, Jamshedpur, and concerned metallurgical departments in IITs, NITs etc., targeting full utilization of low-grade iron ore (Fe content upto 45% by 2020 and upto 40% by 2025). In fact, life cycle assessment of whole process including environmental considerations should be done for techno-economic and environmental viability. R&D studies on utilization of mine wastewater having high concentration of Fe content for different commercial applications in industries such as cosmetics, pharmaceutical, paint industry should also be explored. Responsibility: IBM, Dept. of Steel & Mines, Individual Mine Lease Holders
  
- 18) The mining activity in Joda-Koira sector is expected to continue for another 100 years, therefore, it will be desirable to develop proper rail network in the region. Rail transport shall not only be pollution free mode but also will be much economical option for iron ore transport. The rail network and/or conveyor belt system upto public railway siding needs to be created. The total length of the conveyor belt system/ rail network to be developed from mines to nearest railway sidings by 11 mines in Joda region is estimated to be about 64 km. Similarly, in Koira region, total length of rail network/ conveyor system for 8 mines (under SOTM 1 & 2) is estimated to be around 95 km. Further, it is suggested to develop a rail network connecting Banspani (Joda region) and Roxy railway sidings in Koira region. Responsibility: Dept. of Steel & Mines, Govt. of Odisha and Concerned Mines along with Indian Railways. Time Period: Maximum 7 years (by 2025). The Department of Steel & Mines, Govt. of Odisha should follow-up with the concerned Departments and railways so that proposed proper rail network is in place by 2025.
  
- 19) State Govt. of Odisha shall make all efforts to ensure exhausting all the iron & manganese ore resources in the existing working mines and from disturbed mining leases/zones in Joda and Koira region. The criteria suggested shall be applicable while suggesting appropriate lease area and sustainable mining rate. Responsibility: Dept. of Steel & Mines, Govt. of Odisha
  
- 20) Large and medium mine leases contribute to better implementation of reclamation and rehabilitation plans to sustain the ecology for scientific and sustainable mining. The small leases do not possess scientific capability of environmentally sustainable mining. Therefore, new mine leases having more than 50 ha area should be encouraged, as far as possible. This will ensure inter-generational resource availability to some extent. Responsibility: Dept. of Steel & Mines, Govt. of Odisha

- 21) **Mining Operations/Process Related:** (i) Appropriate mining process and machinery (viz. right capacity, fuel efficient) should be selected to carry out various mining operations that generate minimal dust/air pollution, noise, wastewater and solid waste. e.g. drills should either be operated with dust extractors or equipped with water injection system. (ii) After commencement of mining operation, a study should be conducted to assess and quantify emission load generation (in terms of air pollution, noise, waste water and solid waste) from each of the mining activity (including transportation) on annual basis. Efforts should be made to further eliminate/ minimize generation of air pollution/dust, noise, wastewater, solid waste generation in successive years through use of better technology. This shall be ensured by the respective mine lease holders. (iii) Various machineries/equipment selected (viz. dumpers, excavators, crushers, screen plants etc.) and transport means should have optimum fuel/power consumption, and their fuel/power consumption should be recorded on monthly basis. Further, inspection and maintenance of all the machineries/ equipment/ transport vehicles should be followed as per manufacturer's instructions/ recommended time schedule and record should be maintained by the respective mine lease holders. (iv) Digital processing of the entire lease area using remote sensing technique should be carried out regularly once in 3 years for monitoring land use pattern and mining activity taken place. Further, the extent of pit area excavated should also be demarcated based on remote sensing analysis. This should be done by ORSAC (Odisha Space Applications Centre, Bhubaneswar) or an agency of national repute or if done by a private agency, the report shall be vetted/ authenticated by ORSAC, Bhubaneswar. Expenses towards the same shall be borne by the respective mine lease holders. Responsibility: Individual Mine Lease Holders
- 22) **Air Environment Related:** (i) Fugitive dust emissions from all the sources should be controlled regularly on daily basis. Water spraying arrangement on haul roads, loading and unloading and at other transfer points should be provided and properly maintained. Further, it will be desirable to use water fogging system to minimize water consumption. It should be ensured that the ambient air quality parameters conform to the norms prescribed by the CPCB in this regard. (ii) The core zone of mining activity should be monitored on daily basis. Minimum four ambient air quality monitoring stations should be established in the core zone for SPM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and CO monitoring. Location of air quality monitoring stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board (based on Emission Load Assessment Study). The number of monitoring locations may be more for larger capacity mines and working in larger area. Out of four stations, one should be online monitoring station in the mines having more than 3 MTPA EC Capacity. (iii) Monitoring in buffer zone should be carried out by SPCB or through NABET accredited agency. In addition, air quality parameters (SPM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and CO) shall be regularly monitored at locations of nearest human habitation including schools and other public amenities located nearest to source of the dust generation as applicable.



Further, 11 continuous air quality monitoring systems may be installed in Joida and Koira regions and one in Baripada/ Rairangpur region. (iv) Emissions from vehicles as well as heavy machinery should be kept under control and regularly monitored. Measures should be taken for regular maintenance of vehicles used in mining operations and in transportation of mineral. (v) The vehicles shall be covered with a tarpaulin and should not be overloaded. Further, possibility of 3 using closed container trucks should be explored for direct to destination movement of iron ore. Air quality monitoring at one location should also be carried out along the transport route within the mine (periodically, near truck entry and exit gate). Responsibility: Individual Mine Lease Holders and SPCB.

- 23) **Noise and Vibration Related:** (i) Blasting operation should be carried out only during daytime. Controlled blasting such as Nonel, should be practiced. The mitigation measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented. (ii) Appropriate measures (detailed in Section 5.4) 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. (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone. Further, date, time and distance of measurement should also be indicated with the noise levels in the report. The data should be used to map the noise generation from different activities and efforts should be made to maintain the noise levels with the acceptable limits of CPCB (CPCB, 2000) (iv) Similarly, vibration at various sensitive locations should be monitored atleast once in month, and mapped for any significant changes due to successive mining operations. Responsibility: Individual Mine Lease Holders.
- 24) **Water/Wastewater Related:** (i) In general, the mining operations should be restricted to above ground water table and it should not intersect groundwater table. However, if enough resources are estimated below the ground water table, the same may be explored after conducting detailed geological studies by GSI and hydro-geological studies by CGWB or NIH or institute of national repute, and ensuring that no damage to the land stability/ water aquifer system shall happen. The details/ outcome of such study may be reflected/incorporated in the EIA/EMP report of the mine appropriately. (ii) Natural watercourse and/or water resources should not be obstructed due to any mining operations. Regular monitoring of the flow rate of the springs and perennial nallas should be carried out and records should be maintained. Further, regular monitoring of water quality of nallas and river passing thorough the mine lease area (upstream and downstream locations) should be carried out on monthly basis. (iii) Regular monitoring of ground water level and its quality should be carried out within the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out on monthly basis. (iv) In order to optimize water requirement, suitable conservation measures to augment ground water resources in

the area should be undertaken in consultation with Central Ground Water Board (CGWB). (v) Suitable rainwater harvesting measures on long term basis should be planned and implemented in consultation with CGWB, to recharge the ground water source. Further, CGWB can prepare a comprehensive plan for the whole region. (vi) Appropriate mitigation measures (viz. ETP, STP, garland drains, retaining walls, collection of runoff etc.) should be taken to prevent pollution of nearby river/other water bodies. Water quality monitoring study should be conducted by State Pollution Control Board to ensure quality of surface and ground water sources on regular basis. The study can be conducted through NABL/ NABET approved water testing laboratory. However, the report should be vetted by SPCB. (vii) Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated in ETP so as to conform to the discharge standards applicable. (viii) Oil and grease trap should be installed before discharge of workshop effluents. Further, sewage treatment plant should be installed for the employees/colony, wherever applicable. (ix) Mine lease holder should ensure that no silt originating due to mining activity is transported in the surface water course or any other water body. Appropriate measures for prevention and control of soil erosion and management of silt should be undertaken. Quantity of silt/soil generated should be measured on regular basis for its better utilization. (x) Erosion from dumps site should be protected by providing geo-textile matting or other suitable material, and thick plantation of native trees and shrubs should be carried out at the dump slopes. Further, dumps should be protected by retaining walls.(xi) Trenches / garland drain should be constructed at the foot of dumps to arrest silt from being carried to water bodies. Adequate number of check dams should be constructed across seasonal/perennial nallas (if any) flowing through the mine lease areas and silt be arrested. De-silting at regular intervals should be carried out and quantity should be recorded for its better utilization, after proper soil quality analysis. (xii) The water so collected in the reservoir within the mine should be utilized for the sprinkling on hauls roads, green belt development etc. (xiii) There should be zero waste water discharge from the mine. Based on actual water withdrawal and consumption/ utilization in different activities, water balance diagram should be prepared on monthly basis, and efforts should be made to optimize consumption of water per ton of ore production in successive years. Responsibility: Individual Mine Lease Holders, SPCB and CGWB.

- 25) **Land/ Soil/ Overburden Related** (i) The top soil should temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long (not more than 3 years or as per provisions mentioned in the mine plan/ scheme). The topsoil should be used for land reclamation and plantation appropriately. (ii) Fodder plots should be developed in the non-mineralised area in lieu of use of grazing land, if any. (iii) Over burden/ low grade ore should be stacked at earmarked dump site(s) only and should not be kept active for long period. The dump height should be decided on case to case basis, depending on the size of mine and quantity of waste material generated. However, slope stability study should be conducted for larger heights, as per IBM approved mine plan and DGMS guidelines. The OB dump should be

scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles should be undertaken for stabilization of the dump. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Proper records should be maintained regarding species, their growth, area coverage etc. (iv) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from mine operation, soil, OB and mineral dumps. The water so collected can be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly de-silted, particularly after monsoon and should be maintained properly. Appropriate documents should be maintained. Garland drain of appropriate size, gradient and length should be constructed for mine pit, soil. OB and mineral dumps and sump capacity should be designed with appropriate safety margin based on long term rainfall data. Sump capacity should be provided for adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and de-silted at regular intervals. (v) Backfilling should be done as per approved mining plan/scheme. There should be no OB dumps outside the mine lease area. The backfilled area should be afforested, aiming to restore the normal ground level. Monitoring and management of rehabilitated areas should continue till the vegetation is established and becomes self-generating. (vi) Hazardous waste such as, waste oil, lubricants, resin, and coal tar etc. should be disposed off as per provisions of Hazardous Waste Management Rules, 2016, as amended from time to time. Responsibility: Individual Mine Lease Holders

- 26) **Ecology/Biodiversity (Flora-Fauna) Related:** (i) As per the Red List of IUCN (International Union for Conservation of Nature), six floral species and 21 faunal species have been reported to be under threatened, vulnerable & endangered category. Protection of these floral and faunal species should be taken by the State Forest & Wildlife Department on priority, particularly in the mining zones, if any. (ii) The mines falling within 5-10 km of the Karo-Karampada Elephant corridor buffer need to take precautionary measures during mining activities. The forest and existing elephant corridor routes are to be protected and conserved. Improvement of habitat by providing food, water and space for the elephants is required to be ensured to avoid Man-Elephant conflicts. Though as per the records of State Forest Department, movement of elephants in the Karo-Karampada elephant corridor within 10 km distance from the mines in Joda and Koira is not observed, the Forest Department shall further record and ensure that elephant's movement is not affected due to mining activities. (iii) All precautionary measures should be taken during mining operation for conservation and protection of endangered fauna namely elephant, sloth bear etc. spotted in the study area. Action plan for conservation of flora and fauna should be prepared and implemented in consultation with the State Forest and Wildlife Department within the mine lease area, whereas outside the mine lease area, the same should be maintained by State Forest Department. (iv) Afforestation is to be done by using local and mixed species saplings within and outside the mining lease area. The reclamation and afforestation is to be done in

such a manner like exploring the growth of fruit bearing trees which will attract the fauna and thus maintaining the biodiversity of the area. As afforestation done so far is very less, forest department needs to identify adequate land and do afforestation by involving local people in a time bound manner. (v) Green belt development carried out by mines should be monitored regularly in every season and parameters like area under vegetation/plantation, type of plantation, type of tree species /grass species/scrubs etc., distance between the plants and survival rate should be recorded. (vi) Green belt is an important sink of air pollutants including noise. Development of green cover in mining area will not only help reducing air and noise pollution but also will improve the ecological conditions and prevent soil erosion to a greater extent. Further, selection of tree species for green belt should constitute dust removal/dust capturing plants since plants can act as efficient biological filters removing significant amounts of particulate pollution. Thus, the identified native trees in the mine area may be encouraged for plantation. Tree species having small leaf area, dense hair on leaf surface (rough surface), deep channels on leaves should be included for plantation. (vii) Vetiver plantation on inactive dumps may be encouraged as the grass species has high strength of anchoring besides medicinal value. (viii) Details of compensatory afforestation done should be recorded and documented by respective forest divisions, and State Forest Department should present mine-wise annual status, along with expenditure details. (ix) Similarly, Wildlife Department is also required to record and document annual status of wildlife in the region and should identify the need for wildlife management on regional level. (x) Maintenance of the ecology of the region is prime responsibility of the State Forest and Wildlife Department. They need to periodically review the status and identify the need for further improvement in the region. The required expenditure may be met from the funds already collected in the form of compensatory afforestation and wildlife management. Further, additional fund, if required can be sought from DMF. Responsibility: Individual Mine Lease Holders and State Forest & Wildlife Department.

- 27) **Socio-Economic Related:** (i) Public interaction should be done on regular basis and social welfare activities should be done to meet the requirements of the local communities. Further, basic amenities and infrastructure facilities like education, medical, roads, safe drinking water, sanitation, employment, skill development, training institute etc. should be developed to alleviate the quality of life of the people of the region. (ii) Land outtees and land losers/affected people, if any, should be compensated and rehabilitated as per the national/state policy on Resettlement and Rehabilitation. (iii) The socio-economic development in the region should be focused and aligned with the guidelines/initiatives of Govt. of India/ NITI Aayog / Hon'ble Prime Minister's Vision centring around prosperity, equality, justice, cleanliness, transparency, employment, respect to women, hope etc. This can be achieved by providing adequate and quality facilities for education, medical and developing skills in the people of the region. District administration in association with mine lease holders should plan for "*Samagra Vikas*" of these blocks well as other blocks of the

district. While planning for different schemes in the region, the activities should be prioritized as per Pradhan Mantri Khanij Kshetra Kalyan Yojna (PMKKKY), notified by Ministry of Mines, Govt. of India, vide letter no. 16/7/2017-M.VI (Part), dated September 16, 2015. Responsibility: District Administration and Individual Mine Lease Holders.

- 28) **Road Transport Related:** (i) All the mine lease holders should follow the suggested ore transport mode (SOTM), based on its EC capacity within next 5 years. (ii) The mine lease holders should ensure construction of cement road of appropriate width from and to the entry and exit gate of the mine, as suggested in Chapter 10. Further, maintenance of all the roads should be carried out as per the requirement to ensure dust free road transport. (iii) Transportation of ore should be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore/dust takes place. Further, air quality in terms of dust, PM<sub>10</sub> should be monitored near the roads towards entry & exit gate on regular basis, and be maintained within the acceptable limits. Responsibility: Individual Mine Lease Holders and Dept. of Steel & Mines
- 29) **Occupational Health Related:** (i) 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 periodically. (ii) Occupational health surveillance program for all the employees/workers (including casual workers) should be undertaken periodically (on annual basis) to observe any changes due to exposure to dust, and corrective measures should be taken immediately, if needed. (iii) Occupational health and safety measures related awareness programs including identification of work related health hazard, training on malaria eradication, HIV and health effects on exposure to mineral dust etc., should be carried out for all the workers on regular basis. A full time qualified doctor should be engaged for the purpose. Periodic monitoring (on 6 monthly basis) for exposure to respirable minerals dust on the workers should be conducted, and record should be maintained including health record of all the workers. Review of impact of various health measures undertaken (at an interval of 3 years or less) should be conducted followed by follow-up of actions, wherever required. Occupational health centre should be established near mine site itself. Responsibility: Individual Mine Lease Holders and District Administration (District Medical Officer)
- 30) **Reporting of Environmental Sustainability Achievement:** All the mines should prepare annual environmental sustainability report (ESR), highlighting the efforts made towards environmental protection with respect to different environmental components vis-à-vis production performance of the mine on monthly basis. The data collected as per EC and CTE/CTO conditions should be utilized to prepare the annual sustainability report. The mines performing high with effective environmental safeguards may be suitably recognized/rewarded. "Star Rating Format" formulated by

the Ministry of Mines along with environmental sustainability report may be used.

- 31) **Environmental Monitoring Requirements at Regional Level:** Apart from strict compliance and monitoring by individual mine lease holder, there is a need for simultaneous monitoring in each of the regions by competent expert agencies under the guidance/ supervision of concerned regulatory agency. Details of the studies required to be done on regular basis (continuously for 5 years) through responsible agency (organization of national/state repute) and time frame are suggested in Table.

Table: Suggested Environmental Monitoring Requirements and Action Plans at Regional Level

Sr. No.	Study Component/ Action Plan	Responsibility	Monitoring and Reporting Time Frame (Approx.)
1.	<p>Environmental Quality Monitoring with respect to Air, Water, Noise and Soil Quality in each region (Joda, Koira and Baripada/Rairangpur) as per specified frequency shall be done by a third party (preferably Govt.) and/or laboratory approved/ recognized by NABET/ CPCB/ SPCB/ MoEF&amp;CC.</p> <p>All the water bodies (rivers, nallas, ponds etc.) shall be monitored. National/State level research/ academic institutes may be involved initially for couple of years to streamline the activity. The report shall be brought out annually by June each year. The study shall be conducted in consultation with MoEF&amp;CC-RO.</p>	SPCB	Continuous Annually
	<u>Installation of online ambient air quality monitor for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub> and NO<sub>x</sub> within the mine having more than 3 MTPA EC Capacity</u>	<u>Respective Mine Lease Holders</u>	<u>Continuous Annually</u>
	Installation of online ambient air quality monitor for PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>x</sub> and NO <sub>x</sub> in the Joda and Koira Region (total 11 locations).	SPCB	Continuous Annually
2.	Status of flora and fauna in each of the regions shall be assessed on annual basis. Changes, if any, taking place in the region shall be brought	State Forest & Wildlife Dept.	Annually in mining zone and once in

	out clearly. The study shall be conducted in consultation with State Forest and Wildlife Department.		3 years in the region
3.	Socio-economic study incorporating developments taking place in each of the region, CSR initiatives made by the mining companies shall be conducted on annual basis. Further, micro level developmental needs shall be clearly brought out in the report for each region. The study shall be conducted in consultation with district administration.	Respective District Administration	Annually
4.	A detailed hydro-geological study in each of the regions shall be conducted in an integrated manner in consultation with Regional Director, Central Ground Water Board. Accordingly, all project proponents shall implement suitable conservation measures to augment ground water resources in the area.	SPCB	Once in 2 years
5.	The State Govt. shall ensure construction and maintenance of dust free common roads/ appropriate rail network for transport of ore from mines to the consumer end.	Dept. of Steel & Mines	12 months for road network and 5-7 years for rail network
6.	<u>Construction and maintenance of dust free roads from respective mine to the main road</u>	<u>Respective Mine Lease Holders</u>	<u>Continuous 6 months</u>
7.	Traffic/road inspection study addressing the condition of traffic/roads leading to different mines and connecting to different railway sidings shall be undertaken on annual basis. Further, detailed traffic study shall be undertaken on every 5 yearly basis to ensure adequacy of road/rail infrastructure in each of the regions. The study can be undertaken through national/ state level research/ academic institute (such as CSIR-CRRI, New Delhi).	Dept. of Steel & Mines	Continuous 6 months
8.	Assessment of land use/ land cover changes in each of the regions, with particular focus on mining areas, afforestation activities, variation in flow path of various water bodies etc. using remote sensing data	ORSAC	Annually
9.	R&D Studies for utilization of low-grade iron ore	Dept. of	Upto 45%

		Steel & Mines through R&D / Academic Institutes	by 2020 and upto 40% by 2025
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The data so generated for the region should be made available on the website of Department of Steel & Mines and also at MoEF&CC website, so that it can be effectively utilized by Individual Mine Lease Holders for preparing EIA/ EMP reports. This will meet the requirement for separate one season baseline environmental quality data collection by the individual proponents, if the mine proposed is in the same study region. Further, MoEF&CC (through EAC) can also utilize the data base available in evaluating the proposals for expansion of existing mines or new mines while granting ToR or EC to the mine, taking an holistic view of the region. State Govt. of Odisha should bring out an integrated environmental sustainability report for each of the regions (mainly for Joda and Koia region) incorporating ESR of individual mines and data collected in the region through various agencies, once in 5 years, to plan level of scientific and sustainable mining for the next 5 years.

- 32) **Institutional Mechanism for Implementation of Environmentally Sustainable Mining:** The present study is not a one-time study, but a process to ensure environmentally sustainable mining activities in the region on long term basis. Looking into the large-scale mining activities and long term perspective for mining vis-à-vis environmentally sustainable mining and upliftment of people of the region, there is a need to create an agency, who will integrate all the aspects relating to sustainable mining in the region on long term basis. It could be a SPV of Govt. of Odisha or a cell within the overall control and supervision of Dept. of Steel & Mines, with members from IBM, GSI, OSPCB, MoEF&CC-RO and other concerned Departments and Mine Owners (EZMA), District Administration. It is found that the strong database available for the region needs to be taken into account to map and establish environmental quality of the region on daily, monthly, seasonal and annual basis. Further, the efforts and initiatives of the mines towards environmental protection as well as upliftment of the people of the region are required to be integrated, and a systematic plan at the block/regional level needs to be framed for the overall benefit of the local society, region, district, state and the country as a whole. It will be desirable to have proper environmental quality data management and analysis by NEERI or any other agency for next 5 years (six monthly compliance reports followed by field verification) ensuring sustainable mining practices in the region leading to an overall development of the region. District Mineral Funds should be utilized appropriately for various developmental activities/needs of the region. Further, an environmental sustainability report incorporating environmental status of region coupled with social upliftment may be



brought out by SPCB or any other authorized agency on annual basis. This report can be used for supporting the regional EIA study, and also need for environmental quality monitoring by individual mine seeking environmental clearance for new mine/ expansion of mine, including public hearing. Since, outcome of the above study reports shall be in the overall interest of all the stakeholders (including local population) of the region, further planning for the region shall warrant cooperation and assistance of all the stakeholders (mine operators, industries, transporters, State & Central Government Offices, MoEF&CC, CPCB, SPCB, Dept. of Steel & Mines, IBM, IMD, NGOs and local people) in sharing the relevant data/information/ reports/documents etc. to continuously improve upon the environmentally sustainable development plan for economic growth in mining sector as well as for improvement in quality of life of the people of the region.

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

Sl No.	Name and address	Designation	Date:23/04/2018	Date:24/04/2018
1.	<b>Dr. Ajai Kumar</b> B-1302, BestechParkView Spa, Sector-47, Gurgaon, Haryana	Chairman	<i>Ajai Kumar</i>	<i>Ajai Kumar</i>
2.	<b>Shri B Ramesh Kumar</b> H-No. 6-1-134/6, Balram Compound, Padmarao Nagar, Secunderabad- 500025, Andhra Pradesh	Member		
3.	<b>Prof. Dr. K.S. Rana</b> MaharanaManzil, 18, Dholpur House, (D.M. Compound), M.G. Road, Agra-1, Uttar Pradesh - 282001	Member	<i>K.S. Rana</i>	<i>K.S. Rana</i>
4.	<b>Prof. A. K. Bhatnagar,</b> JA/4B, Ashok Vihar-I, Delhi - 110052	Member	<i>A. K. Bhatnagar</i>	<i>A. K. Bhatnagar</i>
5.	<b>Dr. N. C. Karmakar</b> Department of Mining Engineering, Indian Institute of Technology (BHU), Varanasi - 221 005, Uttar Pradesh	Member	<i>N. C. Karmakar</i>	<i>N. C. Karmakar</i> 24/4/2018
6.	<b>Dr. Hemant S. Sahasrabudhe</b> "Utkarsha", LB-53, Housing Board Colony, Laxminagar, Nagpur-440022	Member	<i>Hemant S. Sahasrabudhe</i>	<i>Hemant S. Sahasrabudhe</i>
7.	<b>Prof. S. Ramakrishna Rao</b> 50-120-9/1, Tulasi Mani Regency North Extension, Seethammadhara, Visakhapatnam - 530013 Andhra Pradesh.	Member		
8.	<b>Dr. Himanshu Pathak,</b> Professor, Center for Environment Science and Climate Resilient Agriculture, Indian Agricultural Research Institute, New Delhi 110 012	Member		
9.	<b>Dr. AL. Ramanathan</b> Professor, School of Environmental Sciences, Jawaharlal Nehru University. New Mehrauli Road, New Delhi- 110067	Member		
10.	<b>Dr. Tushar Kant Joshi,</b> Laxmikant Niwas, SalanGaon, Bhagwantpur, Dehradun- 248009, Uttarakhand.	Member	<i>Tushar Kant Joshi</i>	<i>Tushar Kant Joshi</i>
11.	<b>Shri Santosh Gupta,</b> Flat No. 405, Block -B, Gaur Green Vista, NyayKhand - 1, Indrapuram, Ghaziabad-201014	Member	<i>Santosh Gupta</i>	<i>Santosh Gupta</i>
12.	<b>Representative of Ministry of Mines</b> <b>Shri. Pushpender Gaur,</b> Dy. Controller of Mines, Ministry of Mines, Shastri Bhawan New Delhi-110001.	Member	<i>Pushpender Gaur</i> 23/04/18	<i>Pushpender Gaur</i> 24/4/18
13.	<b>Representative of Indian Meteorological</b> <b>Mr. V.K. Soni,</b> Scientist "E", (Meteorology/Air Pollution), 609, SatMet Building, Mausam Bhawan, Indian Meteorological Department, Lodhi Road, New Delhi-110003	Member		
14.	<b>Representative of Wildlife Institute of India,</b> <b>Dr. (Ms.) Asha Rajvanshi,</b> Wildlife Institute of India, Chandrabani, Dehradun- 248001	Member		
15.	<b>Advisor</b> IA-Division (Non Coal Mining) Vayu-305, Indira Paryavaran Bhawan, Ministry of Environment, Forest & CC, Jorbagh Road, Lodhi Road, New Delhi-110003	Member Secretary	<i>Advisor</i> 23/4/18	<i>Advisor</i> 24/4/18

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Agenda for 30<sup>th</sup> EAC Meeting to be held during on 23<sup>rd</sup> April -24<sup>th</sup> April, 2018