

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

SUMMARY RECORD OF 28th MEETING OF THE RECONSTITUTED COMMITTEE OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF NON-COAL MINING PROJECTS CONSTITUTED UNDER THE EIA NOTIFICATION, 2006.

1.1 Deliberation & Circulation on the Minutes of the 27th EAC Meeting held on 18th -19th January, 2018:

The Minutes of the 27th Meeting of EAC held during January 18-19, 2018. The members made brief deliberations on the proposals placed in the last meeting and approved the same.

The Twenty Eighth 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 **February 26-27, 2018**. The list of participants is annexed herewith. After welcoming the Committee Members, discussion on each of the Agenda Items were taken up ad-seriatim.

(2.1). River Bed Mining Project of M/s Mateshwari Mintech Pvt. Ltd. for mining of Bajri with production capacity of 1.65 Million TPA (ROM) in MLA of 581.28ha, located at Revenue villages of Tehsil: Ramgarh, District: Alwar, Rajasthan (Consultant: JM EnviroNetPvt. Ltd.) [F. No. J-11015/371/2015-IA.II (M); Proposal no. IA/RJ/MIN/70696/2015]– Consideration of EC

The proposal of M/s Mateshwari Mintech Pvt. Ltd. is for mining of bajri with production capacity of 1.65 million TPA (ROM) in the mine lease area of 581.28 ha. The mine lease area is located at village (s)- Akleempur, Utwala, Odela, Odoka, Kamalpur, Kaririya, Keshavnagar, Kesroli, Kanor, Kala Ghata, Khuteta Kalan, Khunteta Khurd, Kharkhada, Khushpuri, Khalsa Nagar, Khojaka, Khodakarmali, Khohar, Googdod, Gujarbas, Gadi, Govindpura, Chaprada, Chidwai, Choroti Pahar, Choroti Ishtmurar, Jugrawar, Jatpur, Todali, Dhodholi, Nangla Chirawada, Nangla Bajeerka, Naiwara, Nakachpur, Nakhnaul, Nakhnaul, Naharpur Khurd, Naugawa, Poothi, Parawada, Pata, Piproli, Podipur, Bagarrajpuri, Bujaka, Barwara, Baira, Bairawas, Bahala, Baangholi, Bamni Khera Bamboli, Bas Thokdar, Bilaspur, Beejwa, Mrangleshpur, Mandapur, Manduka Bas, Moonpur, Moonpur Karmala, Mubarikpur, Mewkhera, Mastabad, Mandla Khurd, Malpur, Milakpur, Raghunathgarh, Roopbas, Rasgan, Ladpur, Lalpuri, Loharwadi, Saithali, Sadhan Ka Bas, Tehsil- Ramgarh, District-Alwar. The lease area lies on river bed of Ruparel in District- Alwar

(Rajasthan The Latitude and Longitude of the mine lease area lies between 27°26'54.09"N to 27°45'50.57"N and 76°40'42.06"E to 76°56'52.43"E on Survey of India toposheet numbers 54A/9, 54A/10, 54A/11, 54A/13, 54A/14, 54A/15, 54E/1, 54E/2, & 54E/3. The mine lease area is located in Seismic zone-II.

The proposal of TOR was considered by the EAC (Non-Coal Mining) in its meeting held during 21st -22nd December, 2015 to determine the Terms of Reference (TOR) for undertaking detailed EIA study. TOR was issued by MoEF&CC, vide letter no No.J-11015/371/2015-IA-II (M), dated 8th January, 2016. PP has submitted the EIA/EMP Report online to the Ministry.

The LOI over an area of 581.28 ha has been granted by Department of Mines, Government of Rajasthan, vide letter no. P. 6 (3)/ Mine/ Group- 2/ 2014 dated 5th December 2014 with certain terms and conditions. However, the PP could not complete the conditions within the period of 1 year as mentioned in the LOI. **Therefore, the validity of LOI extension was submitted by the PP which is still awaited from the Government of Rajasthan.**

In view of the invalid LoI, the Committee **deferred the Proposal** and the Proposal may be considered further after receipt of valid LoI.

(2.2). Proposed River Bed Mining Project of M/s Mateshwari Mintech Pvt. Ltd. for mining of Bajri with production capacity 0.43 million TPA (ROM) in the MLA of 237.20 ha, located at Revenue villages of Tehsil-Laxmangarh, District- Alwar, Rajasthan (Consultant: J. M EnviroNet Pvt. Ltd.) [F. No. J-11015/373/2015-IA.II (M), Proposal No. IA/RJ/MIN/30926/2015]- Consideration of EC

The proposal of M/s Mateshwari Mintech Pvt. Ltd. is for mining of Bajri with production capacity 0.43 million TPA (ROM) in the MLA of 237.20 ha. The mine lease area is located at village (s)- Adoli, Agra ki, Khedli Bhadar, Kheda ka Bas, Kheda Mangal Singh, Kheda Sarangpuri, Khudiyana, Khohara, Gaonri, Ghat, Chamarwara, Jatwara, Tilakpur, Diwali Pahari, Thodoli, Naswari, Narnol Khurd, Palan Kheda, Fatehpur Tarf Khudiya, Fatehpur Tarf Malwali, Butoli, Badoli, Bedha, Berla, Baharpuri, Bai, Bhayadi, Mundjodi, Mundpuri Kala, Malawali, Mahalakpur, Manakpur, Harsana, Hasanpur, Shahpur, Sheetal, Saidpur, Tehsil- Laxmangarh, District-Alwar. The lease area lies on river bed of Ruparel in District- Alwar (Rajasthan). The Latitude and Longitude of the mine lease area lies between 27°17'12.04"N to 27°33'44.80"N and 76°47'50.72"E to 77° 01'11.25"E on Survey of India toposheet numbers 54 A/10, 54A/11, 54 A/14, 54 A/15, 54 A/16, 54 E/2, 54 E/3. The mine lease area is located in Seismic zone-II.

The proposal of TOR was considered by the EAC (Non-Coal Mining) in its meeting held during 21st-22nd December, 2015 to determine the Terms of Reference (TOR) for undertaking detailed EIA study. TOR was issued by MoEF&CC vide letter no No.J-11015/373/2015-IA-II (M) dated 7th January, 2016. PP has submitted the EIA/EMP Report online to the Ministry.

The LOI over an area of 237.20 ha has been granted by the Department of Mines, Government of Rajasthan, vide letter no. P. 6 (2)/ Mine/ Group- 2/ 2014 dated 5th December 2014 with certain terms and conditions. However, the PP could not complete the conditions within the period of 1 year as mentioned in the LOI. **Therefore, the validity of LOI extension was submitted by the PP which is still awaited from the Government of Rajasthan.**

In view of the invalid LoI, the Committee **deferred the Proposal** and the Proposal may be considered further after receipt of valid LoI.

(2.3). Proposed River Bed Mining Project of M/s Mateshwari Mintech Pvt. Ltd. for mining of Bajri with production capacity 0.342 million TPA (ROM) in the MLA of 247.10 ha, located at Revenue villages of Tehsil & District- Alwar, Rajasthan by (Consultant: J. M EnviroNet Pvt. Ltd.) [F. No. J-11015/372/2015-IA-II(M), Proposal No. IA/RJ/MIN/30932/2015]- Consideration of EC

The proposal of M/s Mateshwari Mintech Pvt. Ltd. is for mining of Bajri with production capacity 0.342 million TPA (ROM) in the MLA of 247.10 ha. The mine lease area is located at Village (s)- Ahirbas, Indragarh, Ulahedi, Kairwara, Kairwari, Kairwa Jat, Kairwawal, Kesarpur, Khedli Saiyad, Khedli Pichnaut, Kharkhara, Gujuki, Gajika, Ghegholi, Ghatla, Chomu, Chhajurampura, Jatoli, Dhhakpuri, Dadar, Nangla Charan, Nangla Jogi, Nangli Sandh, Naithala, Nangal Jhida, Nangal Todiya, Naharpura Kalan, Piladhaba, Bandipura, Barkhera, Burja, Bahadurpur Pattikatla, Badh Vilandi, Bichpuri, Modiya, Moreda, Mohabbatpur, Ratangarh, Roopbas, Haldina, Satana, Sumel, Salpur, Salpuri, Shanpur, Mahuwa Kala, Mahuwa Khurd, Dholaplash, Achalpuri, Roopbas, Bhandodi, Tehsil & District-Alwar. The lease area lies on river bed of Ruparel & Sukri in District- Alwar (Rajasthan). The Latitude and Longitude of the mine lease area lies between 27°19'17.84"N to 27°39'13.10"N and 76°31'42.26"E to 76°46'28.40"E on Survey of India toposheet numbers 54A/6, 54A/7, 54A/10, 54A/11, 54A/12, 54A/14 & 54A/15. The mine lease area is located in Seismic zone-II.

The proposal of TOR was considered by the EAC (Non-Coal Mining) in its meeting held during 21st-22nd December, 2015, to determine the Terms of Reference (TOR) for undertaking detailed EIA study. TOR was issued by MoEF&CC vide letter no No.J-11015/372/2015-IA-II (M) dated 8th January, 2016. PP has submitted the EIA/EMP Report online to the Ministry.

The LOI over an area of 247.10 ha has been granted by Department of Mines, Government of Rajasthan, vide letter no. P. 6 (4)/ Mine/ Group- 2/ 2014 dated 5th December 2014 with certain terms and conditions. However, the PP could not complete the conditions within the period of 1 year as mentioned in the LOI. **Therefore, the validity of LOI extension was submitted by the PP which is still awaited from the Government of Rajasthan.**

In view of the invalid LoI, the Committee **deferred the Proposal** and the Proposal may be considered further after receipt of valid LoI.

(2.4). Pandridalli and Rajhara Pahar Lease of Bhilai Steel Plant of M/s Steel Authority of India Limited (SAIL) for mining of Iron Ore with enhancement of production capacity from 2.0 MTPA to 3.5 MTPA (ROM) in the MLA of 220.42 ha, located at Iron Ore Complex (IOC) Dalli Rajhara, Tehsil Dondi Distt Balod, Chhattisgarh (Consultant: M/s ABC Techno Labs India Private Limited) [F. No. J-11015/167/2015-IA-II (M), Proposal No. IA/CG/MIN/27511/2015]-Consideration for Environmental Clearance

The proposal of M/s Bhilai Steel Plant (BSP), a subsidiary of Steel Authority of India Ltd (SAIL), is for mining of Iron Ore with enhancement of production capacity from 2.0 MTPA to 3.5 MTPA (ROM) in the MLA of 220.42 ha. The mine is located at Iron Ore Complex (IOC) Dalli Rajhara, Tehsil Dondi District Balod, Chhattisgarh. The area falls in the Survey of India Topo Sheet No, 64 H/2 near village Panderdalli in the District Balod of Chhattisgarh state and is having Latitude- 20° 33' 00" to 20° 35' 00" N & Longitude- 81° 04' 45" to 81° 07'03" E. The lease is situated at about 95 km towards south from Bhilai Steel Plant.

Total mine lease area is of 220.42ha, out of which 100.76ha is forest land and 119.66ha is non-forest land. PP reported that the mine is in operation from June 1958. Mining Lease was renewed by Govt. of Chhattisgarh for a period from 28.04.2003 to 27.04.2023 over an area of 220.42 ha. PP reported that the Forest Clearance was granted by MoEF&CC, vide F.NO.8-58/2003-FC dated 06.04.2004, dated 12th March 2004 over an area of 100.76 ha making it coterminous to mining lease up to 27.04.2023. Air & Water consent available for the mining lease. TOR was granted by the MoEFCC on 9th June 2015.

PP informed the Committee that they had never taken EC neither under EIA Notification, 1994 nor EIA Notification, 2006 and mine is operating since 1958. **In view of above, EAC mentioned that this is a case of violation as PP had not taken EC under the provisions of the EIA Notification 1994/2006 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 14th March 2017.**

The Committee is also of the view that the Consultant to be warned that they have to guide properly to the PP so that such case shall not come to this Committee with a letter be written to QCI-NABET for necessary action.

(2.5). Proposal of M/s Tulsi Mines & Minerals for expansion of production capacity of soapstone from 15,000 TPA to 74, 630 TPA (ROM) and proposed production capacity of Dolomite-3,14,500 TPA (ROM) and Quartzite- 3,28,540 TPA (ROM) in the MLA of

50.3840ha, located Near Village- Rawat Kheda, Tehsil-Jahazpur, District-Bhilwara, Rajasthan (Consultant: J. M EnviroNet Pvt. Ltd.) [F. No. J-11015/341/2005-IA.II (M), Proposal No. IA/RJ/MIN/29772/2015]- Consideration for EC

The proposal of M/s Tulsi Mines & Minerals is for expansion of production capacity of soapstone from 15,000 TPA to 74, 630 TPA (ROM) and proposed production capacity of Dolomite-3,14,500 TPA (ROM) and Quartzite- 3,28,540 TPA (ROM) in the MLA of 50.3840ha (ML No. 39/84). The mine is located near Village Rawat Kheda, Tehsil Jahajpur, District Bhilwara, (Rajasthan). Study area falls between 25°35'22.89" N to 25°35'54.39" N and 75°14'12.7" E to 75°14'55.44" E on Survey of India Toposheet No. 45 O/2, 45 O/6. The Project is located in Seismic zone-II.

The proposal for ToR was earlier considered by the EAC in its meeting held on 25.08.2015 wherein the Committee recommended the ToR. The Ministry has issued ToR vide letter no. J-11015/329/2015-IA. II (M), dated 06.10.2015. Final EIA/EMP Report has been submitted online to the Ministry for seeking Environmental Clearance after conducting Public Hearing.

The Environmental clearance for the existing production capacity of 15,000 TPA of soapstone was obtained from MoEFCC, vide No. J-11015/341/2005-IA.II (M), dated 04.10.2006. The Compliance report of existing Environmental Clearance conditions has been submitted by Regional Office of MoEFCC Lucknow, vide letter no. IV/ENV/R/Mine-325/474/2006/207 dated 05.10.2017. The Committee deliberated the compliance of the EC conditions.

PP reported that there is no National Parks/Wildlife Sanctuaries/Biosphere Reserves/Wildlife Corridors/Tiger/ Elephant Reserves are located within the 10 km study area of the mine lease. There are five Protected Forests and eight Reserved Forests within 10 km radius study area. As per authenticated list of flora & fauna, one Schedule-I species Indian Peafowl (*Pavo cristatus*) is found in the study area. Authenticated location map, a list of Flora & Fauna for core & buffer zone and Conservation Plan for Indian Peafowl (*Pavo cristatus*) along with budget of Rs. 1,85,000 has been authenticated from Forest Department, Govt. of Rajasthan, vide letter No F-()FCA/UVS/10607 dated 05.10.2017. State Forest Department, Govt. of Rajasthan, vide letter no. Survey/UVS/12-13/2551, dated 06.03.2013 has confirmed that no forest land falls within the lease area. Department of Mines and Geology, Govt. of Rajasthan, vide letter dated 02.03.2016 has mentioned that the lease area does not falls under Aravali Hill notification.

Total Mining lease area is 50.3840 ha, Out of the total lease area, 36.083 ha area is under Govt. land and 14.301 ha area is under Pvt. land. The proposed expansion activity for Soapstone and inclusion of Dolomite and Quartzite will be carried out in the existing ML Area. Mining lease for soapstone was granted in favor of Shri Vamdeo Singh for a period of 20 years vide letter no. F -2 (231) Khan/Gr-2/84 dated 15.12.1984. The agreement was executed on 26.12.1984 and got

registered on 01.01.1985. Afterwards, the mining lease (M.L. No. 39/84 (232/03 R), M.L. Area-50.3840 ha) was transferred in favor of M/s. Tulsi Mines & Minerals, vide order no F -5 (87) Khan/Gr-2/90, dated 25.07.1991. The transfer agreement was executed on 07.08.1991 and got registered on 22.08.1991. Now, the Mining Lease validity has been extended up to 31.12.2034 by Govt. of Rajasthan, vide their letter no M.E./Bhil/CC.5/ML. 232/2003/2063-2065, dated 23.02.2015. LOI letter for inclusion of Dolomite & Quartzite mineral in Soapstone mine area was granted to M/s. Tulsi Mines & Minerals over an area of 50.3840 ha, vide order no. P.5 (79) Khan/Group-2/2014, dated 30.12.2014. Year wise production details have been authenticated from DMG, Bhilwara, Government of Rajasthan, vide letter No. Asst. ME/BHIL/Parya/2015/44, dated 03.05.2017. Modified Mining plan with Progressive mine closure plan was approved by superintending mining Engineer Bhilwara Circle, Bhilwara vide letter No. SME/Bhil Circle/Modi. M.P./ML 39/84/2427 dated 07.07.2015. The PP presented the KML/SHP file to indicate the location of mine lease area on Google Earth/DSS.

PP reported that the mining is being carried out by semi mechanized opencast method. The excavation of waste material, development of benches, construction of approach roads etc. are by hydraulic excavators cum loaders. Approach roads are available for transportation of mineral from face to stock yard and road for transportation of waste from face to dump site. Blasting is done by short holes as required. Blasting is not a regular practice. However, DGMS guidelines and related rules & guidelines of other institutions which address the issue of mining and blasting operations are being/ will be followed. Total minable reserves for Soapstone, Dolomite and Quartzite are 25,45,540 tonnes, 21,53,840 tonnes and 20,96,640 tonnes respectively. Maximum Quantity of waste will be used in construction of haul roads. All safety measures are being/will be taken to stabilize waste dumps. Plantation will be done on the matured dump for stabilization. There will be no overburden dump outside mining lease area. Total water requirement for the mining project after expansion will be 10.0 KLD, which sourced from nearby villages.

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, 2015. The monitoring results of ambient air, surface water, soil, ambient noise and ground water have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples. The soil quality was observed to be slightly alkaline in nature. The general Ground level is 320 m AMSL and Water level in the core area is 280 m AMSL. Ground water table will not be intersected due to mining operations. There is no perennial water body flowing through ML Area except few seasonal drains. The nallah will not be disturbed at any stage of mining. The maximum GLCs after implementation of the mining project are likely to be within the prescribed NAAQ standards. The increment in the fugitive emissions is due to mineral handling. These are restricted to the lease area only by adopting proper mitigation measures, which is practiced at the mine site to control air pollution load below the prescribed limits.

Public Hearing was conducted on 03.03.2017. The Public Hearing was presided over by Shri Lalaram Gugarwal, Additional District Collector and Additional District Magistrate, Bhilwara. The representative from Rajasthan State Pollution Control Board, Bhilwara was also present. Detailed Action plan with budgetary allocation against Points raised in Public hearing has been prepared. The Committee deliberated the action plan.

Total cost of the Project is Rs. 2.5 crores. Capital Cost for environmental protection measures is Rs. 5.0 lacs/- & Recurring cost is Rs. 3.0 Lacs/annum and Expenditure proposed towards ESC activities is Rs. 1.5 Lakhs/ annum. Total manpower requirement will be 70. 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 needs to submit the detailed Green Belt Development plan on periphery of the lease along with type of plantation etc.;
- (ii). Detailed alternative route for transportation of minerals needs to be submitted;
- (iii). Agreements with Hospital/health facility w.r.t. injury/accidents of mine workers;
- (iv). Detailed safety measures of workers needs to be provided; and
- (v). Analysis of silica needs to be carried out.
- (vi). DSR as per the provisions of the EIA Notification 2006 amended on 15.01.2016.

(2.6). Guda Clay mine of M/s Harish Clays with enhancement of production capacity from 60,000 TPA to 2,50,000 TPA (ROM) in MLA of 284.20ha, located at village -Guda, Tehsil Kolayat, District Bikaner, Rajasthan (Consultant: M/s Udaipur Min Tech Pvt. Ltd., Udaipur) [F. No. J-11015/163/2014-IA.II(M); Proposal No. IA/RJ/MIN/23186/2014]- Consideration of EC

The proposal of M/s Harish Clays is for enhancement of production capacity from 60,000 TPA to 2,50,000 TPA (ROM) in respect of Guda Clay mines in ML area of 284.20 ha. The mine is located at Villages – Guda, Tehsil- Kolayat, District Bikaner, Rajasthan. The mine lease area falls between latitudes of N 27° 53' 4.01"– N 27° 53' 46.54"and longitudes of E 72° 48' 45.99" – E 72° 50' 7.78" in Survey of India Topo-sheet no. 45A/13.

The ToR was granted by the MoEF&CC, vide No. J-11015/163/2014.IA-II (M) dated 18.12.2014 for enhancement in production capacity. The EIA/EMP Report has been submitted online to the Ministry for seeking Environmental Clearance after conducting Public Hearing.

Project Proponent reported that the Environmental Clearance was earlier granted by the Ministry to the project, vide letter no. J-11015/5/97 IA. II (M), dated 18.02.1998 for the production capacity of 60,000 TPA of clay. Based on the information submitted by the PP, the Committee noted that the PP has not enhanced the production capacity of mineral w.r.t. consented EC capacity. Regional Office of MoEF&CC, Lucknow, vide letter dated 24.10.2017, has submitted the certified compliance report of earlier EC conditions. The Committee deliberated the compliance of the EC conditions.

Project Proponent reported that Guda Clay Mine lease area was granted in favor of M/s Harish Clays on 30.03.1998 for a period of 20 years w. e. f. 05.08.1998 to 04.08.2018 by the Govt. of Rajasthan, vide letter No. DMG / BIKA /CC -6/G -1/(1)7/93-297, dated 30.03.1998. Further, as per MMDR (Amendments) Act 2015, the lease period has been extended up to 04.08.2048, vide letter of Govt. of Rajasthan dated 16.02.2015. The Modified Mining Scheme and Progressive Mine Closure Plan have been approved by Superintending Mining Engineer, Department of Mines & Geology, Bikaner vide letter No. SME/BKN/CC-III/M.P./ML 7/ 93 /1572, dated 16.02.2016. Consent to Operate has been granted by SPCB vide letter dated 18.04.2017 which is valid up to 31.01.2022.

The mining will be carried out by opencast semi-mechanized by forming suitable benches by making height of 6 m and width of 10 m in mineral bed. No drilling/ blasting are required as the material is loose in nature. The total mineable reserves are 9981727 Tonnes and the proposed capacity of production is 2,50,000 TPA. Hence, the estimated life of the mine will be \simeq 40 years. At the conceptual stage, out of 271 Ha of excavated pit, 100 ha will be converted in to rain water collection pond and remaining area of 171 ha will be backfilled and ecologically restored by plantation. Water requirement of the project for domestic use, dust suppression and plantation shall be 27.0 KLD.

The baseline studies were carried out during December 2014 to February 2015. PP reported that there is no wildlife sanctuary/bio sphere reserve/national parks present within 10Km radius of the study area. Also, the study area doesn't form a part of eco-sensitive areas viz. National Parks, Sanctuaries, Biosphere reserves, Wildlife Corridors, Ramsar Sites, and Tiger/Elephant Reserves. The PP presented the KML/SHP file to indicate the location of mine lease on Google Earth/DSS.

Public hearing was conducted on 27.04.2017 at Atal Sava Kendra, Tehsil Kolayt, District Bikaner. The Public Hearing was presided by Shri Yashvant Bhakar, Additional District Collector, Bikaner. The representative from Rajasthan State Pollution Control Board, Bhilwara was also present. The major issues raised during the Public Hearing are related to employment generation, increase in daily wages of workers, development of road, construction of water huts etc. Project Proponent made commitment of the development of the people and nearby villages. PP assured that the mine association will apply to the Mining Engineer for development of the road with the fund under District Mineral Foundation Trust.

Water coolers shall be provided as per the proposal of local panchayat and construction of water hut is under process. The total capital cost of the project is 4.5 crore. PP reported that during the operational phase, about 250 people will be employed. The unskilled/ semiskilled personnel will be from within the study area, the project will add to the well-being of the area.

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

- (i). Based on DSS the Committee noted that the PP had worked on mine lease boundaries. In this regard, comments/Report from DGMS needs to be submitted;
- (ii). Authenticated list of Flora and Fauna from the State Forest Department needs to be provided;
- (iii). PP needs to submit the detailed Green Belt Development plan on periphery of the lease along with type of plantation etc.;
- (iv). Certificate from DFO w.r.t. TOR 10 needs to be submitted;
- (v). Certificate from State Govt. w.r.t. TOR 17 (Aravali Range) needs to be submitted;
- (vi). DSR as per the provisions of the EIA Notification 2006 amended on 15.01.2016; and
- (vii). PP has submitted the conservation plan for only one schedule I species namely Chinkara. However, the Conservation plan for Common Indian Monitor schedule I species have not prepared; PP needs to revise the Conservation plan for both the schedule I species including Common Indian Monitor along with the budgetary provisions and documentary proof for submission of conservation plan to CWLW .

(2.7). Mining of River Bed Sand (Minor Mineral) with production capacity of 0.42 MTPA (ROM) by M/s Mukesh Sharma, located at Revenue Villages of Tehsil: Baran, District-Baran, Rajasthan (MLA: 360.97 ha.) (Consultant: Enkay Enviro Services Pvt. Ltd., Jaipur) [Proposal No. IA/RJ/MIN/32677/2015; File No. J-11015/408/2015-IA.II(M)] - Consideration of EC

The proposal of lessee Shri Mukesh Sharma is for mining of River Bed Sand (Minor Mineral) with production capacity of 0.42 Million TPA (ROM) in the mine lease area of 360.97 ha. The mine is located at revenue village(s) - Kagla bamori, Mehrawata & Rani badaud, Tehsil: Kishanganj & village(s): Ulthi, Majwata, Kalyanpura ghata, Ghinsri, Hanotiya, Koyla and Shahgrah in Tehsil: Baran, District – Baran, Rajasthan.

Total mine lease area is 360.97ha which is non-forest land. Letter of Intent was issued by the State Govt. of Rajasthan, vide letter dated 03.12.2014 with certain terms and conditions. However, the PP could not complete the conditions within the period of 1 year as mentioned in the LOI. **Therefore, the validity of LOI extension was submitted by the PP which is still awaited from the**

Government of Rajasthan.

In view of the invalid LoI, the Committee **deferred the Proposal** and the Proposal may be considered further after receipt of valid LoI.

(2.8). Ghoraburhani - Sagasahi Iron Ore with proposed production of 7.16 Million TPA of Iron ore (ROM) along with Crushing & Screening Plant and Beneficiation Plant with capacity of 6.7 Million TPA Capacity by M/s Essar Steel India Limited, located at village- Ghoraburhani, Sagasahi and Kalmang, Tehsil Koira, District Sundargarh, Odisha (MLA 139.165ha) (Consultant: Creative Engineers & Consultants) [F. No. J-11015/192/2016-IA-II(M), Proposal No. IA/OR/MIN/56152/2016]- Consideration of EC

The proposal of M/s ESSAR Steel India Limited is for Ghoraburhani – Sagasahi Iron ore block with proposed production of 7.16 Million TPA of Iron ore (ROM) along with Crushing & Screening Plant and Beneficiation Plant with capacity of 6.7 Million TPA Capacity in mine lease area of 139.165ha. The mine lease area is located at Ghoraburhani, Sagasahi and Kalmang villages, Koira tehsil of Sundargarh district of Odisha. The lease area is bounded by Latitude 21° 56' 08.83896" to 21° 57' 09.61956" North and Longitude 85° 17' 02.54580" - 85° 17' 57.53148" East and falls in Survey in India Topo Sheet No.73 G/1 & 73 G/5. The PP presented the KML/SHP file to indicate the location of mine lease area on Google Earth/DSS.

The ToR has been issued by the Ministry vide letter No. J-11015/192/2016.IA.II (M), dated 16th January 2017. The EIA/EMP Report has been submitted online to the Ministry for seeking Environmental Clearance after conducting Public Hearing.

Total mine lease area is 139.165 ha, out of which 126.401 ha is forest land and balance 12.764 ha is non-forest land (6.063 ha of Govt Land, 3.257 ha of Private tenanted land and 3.444 ha of Gochar land). Application for diversion of forest land for mining purpose is made by PP, vide proposal no FP/OR/MIN/18611/2016 on 22nd March 2016 which is under consideration at the level of Govt. of Odisha. .

The PP has informed that the company is in bidding process and likely to approach the National Company Law Tribunal (NCLT) regarding the bids received as part of the steelmaker's insolvency resolution process since both the bidders are facing eligibility issues. In this context, the Committee is of the view that when PP is under bidding process it may be advisable to appraise the project with new PP. But, the PP requested to consider the project as they felt that grant of EC would add value to the company asset and raised valuation of the company.

The Committee deliberated the proposal and **noted that there are various**

discrepancies in the Report/Presentation. Some of the discrepancies are as (i) TOR-wise compliance is not adequate and presentation was very confusing as PP has not read the report and also could not made the presentation w.r.t. TOR wise; The Consultant has not properly understood the meaning of TOR and given the vague information; (ii) TOR no. 7 w.r.t. environmental policy is in-adequate and old i.e. before issuance of TOR and it seems that it does not relate to this project; (iii) Slide no. 15 of presentation w.r.t. top soil data having errors; (iv) Action Plan of issues raised during Public Hearing is in-adequate; (v) Revised report w.r.t. PM2.5 needs to be submitted as per CPCB guidelines; (vi) TOR no. 31 w.r.t. green belt development plan is inadequate; (vii) R&R plan is inadequate; (viii) Analysis w.r.t. surface water samples is wrongly reported, may be laboratory error; The Consultant has not done any root cause analysis; (ix) Conceptual Cross Section Plan in slide no. 18 is not adequately presented; and (x) TOR 23 w.r.t. air quality modeling is inadequate.

The Committee is of the view that the Consultant to be warned from furnishing misleading and in-adequate information in the EIA/EMP Report and making vague assessments with a letter be written to QCI-NABET for necessary action.

The Committee deliberated at length the information submitted by PP and **deferred** the Proposal. The Committee is of the view that there are several discrepancies in the EIA/EMP report therefore a **revised EIA/EMP report rectifying the errors shall be submitted for further consideration.**

(2.9). Expansion of production capacity of Silica Sand and Masonary Stone mine of M/s Shubhash Chand Mukesh Chand from 25,000 TPA of Silica Sand to 21,50,000 TPA (Masonry Stone – 17,00,000 TPA with 2,00,000 TPA in crushed form & Silica Sand – 4,50,000 TPA) and installation of Primary (2 Nos.) & Secondary Crushers (2 Nos.) in M.L. area of 124.63 Ha located at Village – Bhondagaon and Jagjivanpur, Tehsil–Weir, District–Bharatpur, Rajasthan [Proposal No. IA/RJ/MIN/65078/2017; File No. J-11015/142/2016-IA.II(M)]– Consideration of EC

The proposal of M/s Shubhash Chand Mukesh Chand is for Expansion of production capacity of Silica Sand and Masonary Stone mine from 25,000 TPA of Silica Sand to 21,50,000 TPA (Masonry Stone – 17,00,000 TPA with 2,00,000 TPA in crushed form & Silica Sand – 4,50,000 TPA) and installation of Primary (2 Nos.) and Secondary Crushers (2 Nos.) in M.L. area of 124.63 Ha. The mine is located at Village –Bhondagaon and Jagjivanpur, Tehsil – Weir, District – Bharatpur, Rajasthan.

The Proposal was earlier placed before the EAC in its meeting held during December 21-22, 2017 wherein the Committee deferred the proposal. The Committee noted that they had received a complaint on the multiple issues related to the project. Accordingly the Committee **deferred** the proposal and suggested

that the Ministry may first examine these issues raised in the complaint and afterward the proposal may be placed before the EAC.

(2.10). Expansion of Sindesar Khurd Lead – Zinc underground mines of M/s Hindustan Zinc Limited (HZL) from 4.5 Million TPA to 6.0 Million TPA Ore production and Beneficiation from 5.0 Million TPA to 6.5 Million TPA, located at Sindesar Khurd Village, Tehsil: Relmagra, District Rajsamand, Rajasthan (ML No.07/95, MLA 199.8425 Ha) (Consultant: M/s Vimta Labs Ltd.) [Proposal No. IA/RJ/MIN/62174/2017; File No. J-11015/7/2017-IA.II(M)]– Consideration of EC

The proposal of M/s Hindustan Zinc Limited (HZL) is for enhancement of lead-zinc ore production capacity from 4.5 Million TPA to 6.0 Million TPA (ROM) and beneficiation from 5.0 Million TPA to 6.5 Million TPA in respect of Sindesar Khurd Lead –Zinc underground mines in ML Area of 199.8425 Ha. The mine is located at Sindesar Khurd Village, Tehsil: Relmagra, District Rajsamand, Rajasthan. The Mining lease area reportedly falls in Survey of India Topo sheet No. 45L/1 and 45K/4 and lies between Latitudes 24°59'N-25°01'N and Longitudes 74°09'E-74°10'E. The elevation above M.S.L. is 510m – 546m. The area falls in Seismic zone-II.

The Proposal was earlier placed before the EAC in its meeting held during December 21-22, 2017 wherein the Committee **deferred** the proposal and sought the following information/clarifications:-

- (i). Examination of the issue related to commencement of mining operations in 2005-06 i.e. after passage of 5 years of getting EC under the Hon'ble Supreme Court judgment dated 02.08.2017 vis-a-vis aspect of violation of EIA notification, 1994 and/ or 2006;
- (ii). Submission of land-use details and status of acquisition of the balance land of 74.3225 Ha;
- (iii). Assessment of number of Project Affected Families (PAFs) impacted directly as well as indirectly under the current expansion proposal and submission of detailed break-up of the R&R components (compensatory land, housing, solatium/ allowances etc.) including budgetary aspects;
- (iv). Identification of left-out Schedule-I species in core and buffer zone like Indian Python, and preparation and submission of additional/ supplementary conservation plan to State Forest Department covering all the left out Schedule-I species;
- (v). Comprehensive assessment of impact of lead contamination on human health including kids and examination & inclusion of remedial and preventive actions proposed by NIOH to avoid lead contamination under Occupational

Health Action Plan along with budgetary aspects;

- (vi). Break-up of activities to be carried out under ESC and revising Plantation program with year-wise action plan including budgetary provisions; and
- (vii). Preparation of remedial action plan to address issues mentioned in MoEFCC R.O. Compliance report.

In this regard, the PP vide letter dated 29.01.2018, has submitted the information/clarification and accordingly the proposal is considered in this meeting. PP has submitted the point-wise information which is as follows:-

- (i). Project Proponent submitted that, as per EIA notification 1994 (Sr. No. 2, III (c)), validity of Environmental Clearance is for a period of five years for commencement of the construction or operation. Accordingly, Sindesar Khurd Mine has commenced the mine construction activities in 2001-02. Environmental Clearance and Consent to Establish for the said project was obtained vide letter no. J-11015/16/99- IA(M) dated 02.12.1999 and F-12(30-243) RPCB/Gr III/224 dated 25.02.2000 respectively. Consent to Establish was further renewed in 2001, 2003 and 2005. Diligent efforts were made for executing mine construction activities which are pre requisite for commencement of production from an underground mine. The construction activities comprised of infrastructure development for establishing access to the deposit, working levels & ventilation for developing mining blocks. Also exploration from surface & underground were carried out from 2001 onwards to define the extents and configuration of ore body at various levels. In 2005, under valid CTE, when mine became ready for production, CTO was obtained vide letter no. F:12 (30-243) RPCB/Gr III/2438 dated 04.01.2006. Ore production was commenced in 2005-06 and is continuing. With focused exploration from 2006 to 2008, R & R of the deposit was enhanced from 13.5 million tons to 37.2 million tons as on 01-04-2008. The increased R & R of the deposit enabled to enhance the production from 0.3 to 2.0 Mtpa and accordingly EC was obtained for 2.0 MTPA in 2009. PP submitted that development and consequent ore production at SK Mines have been carried out as per EIA notification 1994 and/or 2006. During 2000 to 2006, there was no change in approved production capacity as per EC, hence there was no increase in pollution load. Thereby Hon'ble Supreme Court judgment has not been violated. **The Committee deliberated the same and suggested that the violation issues may be examined by the Ministry.**
- (ii). PP reported that total Lease area of SK mine is 199.84 Ha, out of which the acquired area is 125.52 Ha and the proposed expansion activities are planned within this acquired area only and no activity of proposed expansion is planned in agricultural/grazing land falling within lease area. Hence, the said area will not be disturbed for the proposed expansion. PP reported that they are in the process of relocating settlement about 2 km away from the lease area. Break up of balance 74.3225 ha is shown under:-

Particulars	Lease Area (ha)	Acquired (ha)	Balance Area (ha)
Waste Land	148.8425	125.52	23.3225
Grazing Land	6.5	-	6.5
Agriculture Land	39	-	39
Others (Settlements)	5.5	-	5.5
Total	199.8425	125.52	74.3225

- (iii). Project proponent submitted that resettlement has been planned as per request raised by villagers in Public Hearing. No family is directly affected because the significant part of settlement is outside of the ML area, only small portion i.e. 5.5 ha area is falling inside the ML area of 199.84 ha. PP reported that R&R plan has been made as per The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013 and Land equal to existing plot sizes will be given to all families. 300 % compensation to all 581 identified families for land and construction cost, i.e. 3 times of DLC rate for land and 3 times of PWD rate for construction will be provided. Rehabilitation site with construction of roads, community centre, school, hospital and other infrastructures will be provided. Employment to all eligible villagers has been given, which is a prerequisite. The Proponent explained that out of the total land required for R & R of 100 Bigha, 72 Bigha is in place and balance 28 Bigha will be acquired. The committee asked the proponent to confirm that equal land will be given as a part of displacement and the same was confirmed by the proponent. The Proponent also explained that the compensation details in line with the act and also the common facilities being provided and the same was deliberated by the Committee.
- (iv). Project Proponent submitted that Indian Python has been included in the Sch. I Conservation Plan and revised plan submitted to DFO –Rajasamand for approval vide letter no. SKM/ENV/DFO/2018/01 dated 09.01.2018 with budgetary provision of Rs. 2 Crore. PP reported that Other Schedule-I species listed by DFO like Marsh Crocodile (*Crocodylus palustris*), European bat (*Pipistrellous pigemous*), Gangetic Soft Shell Turtle (*Gangeticus species*), avifauna belonging to raptors like Tawny Eagle (*Aquila repax*), vulture species and ungulate species like Four Horned Antelope and Chinkara were not found in the study area. The proponent committed that the conservation plan will be implemented in consultation with DFO.
- (v). PP reported that the detailed action plan of remedial and preventive actions for lead contamination on human health. The PP informed that the NIOH study was done in Ajmer district and all the actions have been captured and the same will be implemented. The PP also explained that they will do a fresh baseline and based on the outcome of this study will implement the actions for the community in consultation with experts. PP also confirmed

that it has kept a budget of Rs 50 Lakhs for conducting various programs in connection to Lead.

- (vi). PP reported that the Enterprise Social Commitment (ESC) Cost Break up over a period of 3 years covering the various program like skill development, community welfare, model village, animal husbandry, roads, plantation in villages and monitoring and control measures to ensure village environment. PP also confirmed that these were the points raised during public hearing. PP also explained that the cost estimated and presented will be spent to facilitate smooth R & R of Village.
- (vii). PP reported that Time bound progressive plan with selection of species has been made and greenbelt development (46 ha) is already done in existing operation and remaining 4 ha is proposed to be completed by 2018-2019 within acquired area. More than 15,000 numbers of fruits bearing plant saplings have been planted in the surrounding villages covering over 15 ha. Further, plantation of 30,000 nos. of native & orchard species is being planned in financial year 2018-19 and its maintenance for next two years with budgetary provision of Rs.2.00 Crores.
- (viii). PP submitted that action plan regarding presence of lead in blood samples has been explained in previous point and also informed that Zinc is essential element for human nutrition. Zinc content in vegetable and other crops depends on variety of fertilizers being used by farmers, type of soil and crop species etc. To control airborne dust measures like dust extraction/suppression are in place as per EMP. The Committee deliberated the issues.

The Committee asked the PP to run an awareness campaign on Sanitation for Women and utilisation of Sanitary Napkin. PP informed that they have similar focused programs on distribution of sanitary napkin among community and construction of toilets in Girls School. PP assured to implement the suggestion on awareness campaign on Sanitation for Women and utilization of Sanitary Napkin.

Based on the information submitted and presentation made by PP and subsequent deliberations made on the proposal, the Committee **recommended** the proposal for grant of Environmental Clearance for enhancement of lead-zinc ore production capacity from 4.5 Million TPA to 6.0 Million TPA (ROM) and beneficiation from 5.0 Million TPA to 6.5 Million TPA **subject to examination** of proposal by the Ministry regarding the 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 Committee recommended **additional specific conditions** viz. (i) The Proponent should 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) The Project Proponent has to take care of gullies

formed on slopes. Dump mass should be consolidated with proper filling/leveling with the help of dozer/compactors. The report on slope and stability monitoring should be sent to MoEF&CC and its Regional office every six-months; (iii) The reclamation at waste dump sites shall be ecologically sustainable. Scientific reclamation has been followed. The local species may be encouraged and species are so chosen that the slope, bottom of the dumps and top of the dumps are able to sustain these species. The aspect of the dump is also a factor which regulates some climatic parameters and allows only species adopted to that micro climate. This may be recommended to be studied by hiring Expert Ecology Group; (iv) There is need for regular monitoring of invertebrates and aquatic life of water bodies including the reservoir located close to the mining lease to establish that fish and other animals including the water is not contaminated with heavy metal. There could be a research on "bio accumulation of heavy metals in invertebrates" to completely establish that there is no impact of mining; (v) A specialized Institution may be hired to carry out ecological survey on the plant species to evaluate their growth in terms of stunted, deformed and seed viability. The sensitive species and indicator species to heavy metal pollution may be screened out and plantation accordingly designed. Similarly, uptake of Zinc, Cadmium and lead etc. by crops and vegetables grown in the crop lands around the mining lease may be studied. Bottom sediment analysis of ponds, wells and Rivers to ascertain the level of accumulation of heavy metal may be done; (vi) The Proponent shall conduct an Occupational health study with respect to the pressure impact on ear drums as person goes underground and implement the recommendations; (vii) 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; (viii) Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers. The material transfer points should invariably be provided with Bag filters and or dry fogging system. Belt-conveyors should be fully covered to avoid air borne dust; Use of effective sprinkler system to suppress fugitive dust on haul roads and other transport roads shall be ensured; (ix) The monitoring of PM_{2.5} in the vehicle emission shall be conducted to improve the mine environment and report submitted to the Regional Office of the MoEF&CC; and (x) Project proponent shall compensate all 581 identified families for land and construction cost, i.e. 3 times of DLC rate for land and 3 times of PWD rate for construction will be provided. Rehabilitation site with construction of roads, community centre, school, hospital and other infrastructures will be provided. The PP has confirmed that equal land will be given as a part of displacement; (xi) Implementation of conservation of all Schedule-I species as per

revised plan submitted to DFO –Rajasamand for approval vide letter no. SKM/ENV/DFO/2018/01 dated 09.01.2018 with budgetary provision of Rs. 2 Crore; (xii) Implementation of action plan on remedial and preventive actions for lead contamination on human health for the community in consultation with experts with budgetary provisions of Rs 50 Lakhs for conducting various programs in connection to Lead; and (xiii) 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.

(2.11). Mining of Rare/atomic minerals (Beach mineral sand @ 70,000 TPA (ROM) by M/s Indian Rare Earths Ltd. (IREL), located at village Manavalakurichi, Tehsil: Kalkulam, District Kanyakumari, Tamil Nadu. (ML area 7.06ha)(Consultant: M/s Bhagavathi Ana Labs Limited, Hyderabad) [F. No. J-11015/61/2011.IA.II(M); Proposal No. IA/TN/MIN/71874/2011] -Re-Consideration of EC

The proposal of M/s Indian Rare Earths Limited is for mining of rare/atomic minerals to produce the products (viz. Ilmenite, Rutile, Zircon, Monazite and Garnet) with production capacity of beach mineral sand @ 70,000 TPA (ROM). The mine is located at village Manavalakurichi, Tehsil: Kalkulam, District : Kanyakumari and State: Tamilnadu in MLA of 7.06ha. The project area falls between 08°08'16" - 08°09'10" N Latitudes and 77°18'14" -77°17'31" E Longitudes. The Mining Lease area is available in the Survey of India Toposheet No 58H/8/NW.

The Proposal was earlier appraised before EAC in its meeting held during June 26-28, 2013 wherein the EAC (Non-coal) **recommended** the proposal for environmental clearance for the production of 70,000 TPA of beach sand minerals (Illemnite, Rutile, Zircon, Monozite, sileminite and Garnet) with special conditions, that (i) The private patta lands which are not owned by M/s IREL, mining will be carried out only after obtaining the consents from the concerned land owners as per the provisions of the Mineral Concession Rules, 1960 and MMDR Act, 1957, (ii) During mining operations, the village built up areas, roads, human settlement areas will not be disturbed, (iii) The tailings will be backfilled only in the mined out pits, (iv) Necessary clearance from the Coastal Zone Management Authority shall be secured, (v) AERB clearance for obtaining license under the Atomic Energy (Radiation Protection) Rules, 2004 for operation of BSM (Beach Sand Minerals) facility, and (vi) Occupational health and safety measures, especially concerning radiation to be enhanced for workers who are having some ailments like hypertension, diabetes etc. They should have health checkup once in six months.

The ML area was granted by Tamilnadu Govt. on 01.11.1968 and the mining lease deed was executed on 31.08.1970 for 20 years. Government of Tamilnadu, vide GO.3(D) No.6, dated 28.01.2000 has renewed the mining lease (RML application submitted on 18.08.1989) for 20 years w.e.f. 31.08.1990 to 30.08.2010. IREL has submitted the Application in time (21.08.2009) for 2nd renewal of Mining Lease to Govt. of Tamilnadu. The ML area is under deemed extension as per Rule 24A(6) of MC Rules 1960 and Rule 6(11) of Atomic Mineral Concession Rules 2016, dated 11.07.2016. The mining lease contains atomic

mineral with a grade more than threshold (0.75% of Monazite in total heavy mineral) as per schedule "A" of Atomic Mineral Concession Rules, 2016 and as per the Rule 6(11) of AMCR, 2016. The mining lease is deemed to have been granted until entire reserve of the mineral in the mine is exhausted.

PP reported that the ML area falls under Coastal Regulation Zone (CRZ) declared by Government of India. MoEF, Government of India gazette notified the CRZ-1991 notification (SO 114(E), dated: 19.02.1991) for regulating the activities within CRZ. As per the preamble of CRZ-1991 notification, the provisions of CRZ-1991 notification are applicable only for - setting up and expansion of industries, operations or processes, etc. in the said Coastal Regulation Zone. As ML area has been operating since 1970 i.e. pre-CRZ-1991 notification and there is neither any setting up nor any expansion activities involved over 7.06 ha, clearance under CRZ-1991 notification was not attracted. ML area lies adjacent to another ML area 141.2269 ha of IREL, Manavalakurichi. The manually mined mineral sand from ML area transported to Mineral separation plant for individual mineral separations. The mineral separation plant is located within the 141.2269 ha ML area. The mining and mineral separations are integral activities. The mineral sand supplied from 7.06 ha ML area supplements the raw material requirement for the Mineral Separation Plant for the production of individual minerals. Tamilnadu Pollution Control Board granted the CTO under the Air Act and the Water Act for production of total 1,14,600 TPA (atomic minerals viz: Ilmenite, Rutile, Zircon, Zircon, Monazite and Garnet) vide order dated 02.07.1991. The atomic minerals produced by IREL, Manavalakurichi are of strategic importance and find applications in Atomic Energy, Space and Defence sectors of the Country. Atomic Mineral Regulatory Board, Government of India granted licence for the production 1,34,000 TPA of atomic minerals in favour of IREL, Manavalakurichi. TNPCB conducts the monitoring of IREL activities in regular intervals and the pollution load parameters are within the permissible limits. The CTO issued by TNPCB is valid upto 31.0.2018. The production levels of atomic minerals by IREL, Manavalakurichi are within the permissible limits and the mining operations are carried out as per the approved mining plan. CRZ-1991 notification does not contemplate obtaining clearances for Renewal of Mining Leases.

PP reported that the Government of India gazette notified the EIA-1994 notification vide SO 60(E), dated 27.01.1994 imposing restrictions and prohibitions on the expansion and modernization of any activity or new projects from the date of publication of EIA-1994 notification being undertaken in any part of India unless environmental clearance has been accorded by the Central Government. Under para 3(a) of the EIA-1994 notification, it is explained that Nothing contained in EIA-1994 Notification shall apply to the mining projects of major minerals with lease areas more than 5 ha covered by Notification S.O. 114 (E) dated 20th February, 1991 (i.e. CRZ-1991 notification). PP mentioned that as 7.06 ha ML area falls under CRZ-1991 notification, the provisions of EIA-1994 notification and the circulars/OMs issued there under are not applicable. Further, the ML area is under deemed extension w.e.f. 30.08.2010 as per the Rule 24A(6) of MCR 1960. The ML area is located within the CRZ-I(B) wherein the replenishment of atomic

minerals occur due to wave action. On 11.07.2016, Ministry of Mines has notified the Atomic Mineral Concession Rules (AMCR) 2016 under section 11B of MMDR Act 1957. The monazite content over 7.06 ha ML area is more than the threshold values as prescribed under Schedule-A of AMCR 2016. Rule 6(11) of AMCR-2016 stipulates that for the existing mining leases granted to a Govt. Company shall be deemed to have been granted till reserve of such minerals in the mine are exhausted. The manual mining operations over 7.06 Ha have been conducted in a sustainable manner based on the replenishment activity. After enforcement of AMCR-2016, there is no concept of Renewal of Mining Lease for 7.06 ha ML area till exhaust of atomic minerals. The Committee deliberated the issues.

The mining plan has been approved vide order nos: a) AMD/MRG/IRELMK/MP/7.06 ha dt.17.11.2016 and b) TN/KK/MP/GNT-1828.MDS, dated: 15.11.2012. Scheme of mining for 7.06 ha ML area has been prepared as per the latest guidelines of Indian Bureau of Mines and got approved by IBM, Chennai on 08.05.2015 (No: TN/KNK/GNT/MS-1231.MDS) for undertaking mining operations over 7.06 ha with a production quantity of 70000 TPA of Beach Mineral sand. PP reported that the MLA comprises replenishable deposit only. Replenishable deposit occurs in inter tidal area (between LTL & HTL) due to wave action. Deposited mineral sand in the beach area i.e. inter tidal area is mined upto a depth of 0.2 to 0.3 m manually by using hand spade and baskets. The entire area is beach poromboke. The mined out mineral sand is transported to Beach Washing Plant/Mineral Separation Plant through tippers/trucks located in adjacent Mining Lease area of 141.22 69 ha for further up gradation and separation of individual minerals.

PP informed that the Proposal was earlier appraised before EAC in its meeting held during June 26-28, 2013 wherein the EAC (Non-coal) recommended the proposal. Further, the Ministry intimated the PP that the EC will be issued to IREL after receipt of clearance from Tamilnadu State Coastal Zone Management Authorities. Simultaneously in line with the above activities, IREL engaged Institute of Remote Sensing, Anna University, Chennai (MoEFCC Authorized Agency) during 2012 for preparation of the CRZ maps as per CRZ-2011 notification. IREL, MK submitted the application for obtaining CRZ clearance as per CRZ-2011 notification to District Coastal Zone Management Authority (DCZMA), Kanyakumari District, Tamilnadu on 09.02.2013. DCZMA recommended the proposal and forwarded to Tamilnadu State Coastal Zone Management Authority (TNSCZMA) on 19.07.2013. IREL, MK presented the details of 7.06 hec for grant of CRZ clearance before TNSCZMA, during its meeting on 09.10.2013. TNSCZMA vide their letter dated: 13.11.2013 recommended the proposal for grant of CRZ clearance for 7.06 hec mining lease area of IREL under CRZ-2011 notification with a condition "4(b)" that there should not be any mining in Coastal Regulation Zone-1(B), i.e in the inter-tidal zone and forwarded to MoEFCC, New Delhi for further action.

IREL requested EAC (CRZ), MoEFCC during 130th meeting on 24.01.2014 at MoEFCC, New Delhi to delete the condition "4(b)" of TNSCZMA recommendations dated: 13.11.2013 and furnish their recommendations permitting IREL, Manavalakurichi to continue the mining of rare minerals in the intertidal zone for

grant Environment Clearance – as mining of rare minerals is a permissible activity in CRZ as per CRZ-2011 notification. Further, MoEFCC, IA-III Division vide letter dated: 02.06.2014 sought clarifications from TNSCZMA for 7.06 ha with respect to mining of rare minerals in the intertidal zone. TNSCZMA vide letter dated: 05.08.2014 further sought clarifications from IA-III Division, MoEFCC, New Delhi w.r.t. mining in the CRZ-I(B) intertidal area and mining between 200m-500m in CRZ-III area as there is no clarity in the CRZ-2011 notification. On 11.04.2016, IA-III Division, MoEFCC intimated TNSCZMA about the opinion received from the Ministry of Law and Justice on mining of rare minerals in the intertidal zone and between 200m-500m of CRZ-III area. On 06.06.2016, TNSCZMA requested MoEFCC to amend the CRZ-2011 notification based on the opinion received from the Ministry of Law and Justice to bring clarity during issuance of recommendations from Coastal Zone Management Authorities.

Based on the above mentioned issues, the MoEFCC vide GSR 1227 (E), dated 06.10.2017, has amended the CRZ-2011 notification, permitting manual mining of atomic minerals in the inter-tidal zone by such agencies as authorized by the Department of Atomic Energy (DAE) as per mining plan approved by the DAE, provided that the manual mining operations are carried out only by deploying persons using baskets and hand spades for collection of ore or mineral within the inter-tidal zone as per approved mining plan.

The Tamil Nadu State Coastal Zone Management Authority (TNSCZMA) has **recommended** the proposal in its meeting held on 29.11.2017 for clearance under CRZ Notification 2011 subject to certain following specific conditions.

- (i). The unit shall adhere to the guidelines / stipulations / conditions of mining lease and shall follow the mining plan.
- (ii). The unit shall not use any explosives for the mining. No blasting or drilling for mining shall be carried out.
- (iii). In Inter-tidal zone, manual mining operations are to be carried out, only deploying persons using baskets and hand spades for collection of ore or minerals as per the approved mining plan
- (iv). The unit shall ensure that the mined area is refilled with the tailings. The aesthetic appeal of the beaches should be retained by avoiding artificial sand dunes of greater heights
- (v). The beach profile shall be monitored periodically with the maintenance of relevant records / measurements / details so as to take appropriate remedial action on the event of any adverse impacts.
- (vi). There shall be no extraction of ground water without permission from the Competent Authority.
- (vii). There should not be any sea water intrusion due to the project activities and periodical water quality monitoring shall be conducted.
- (viii). No road shall be formed in CRZ
- (ix). No liquid or solid waste shall be generated and disposed off in CRZ
- (x). The Unit shall develop green belt within / outside mining area

- (xi). The unit shall not establish new mineral separation plant/processing unit within CRZ areas and also there should not be any expansion of existing mineral separation plant / processing unit
- (xii). The unit shall obtain consents, in appropriate stages from Tamilnadu Pollution Control Board.

Govt. of Tamil Nadu, vide letter no. 24116/EC.3/2017-1, dated 08.01.2018 has forwarded the recommendations of TNSCZMA to the MoEF&CC. Based on the recommendations, proposal is considered in this meeting.

The Committee deliberated the information submitted by PP and **recommended** the proposal for mining of rare/atomic minerals to produce the products (viz. Ilmenite, Rutile, Zircon, Monazite and Garnet) in CRZ area with production capacity of beach mineral sand @ 70,000 TPA (ROM).

The Committee also **recommended the specific conditions** that (i) Implementation of recommendations provided by the Tamil Nadu State Coastal Zone Management Authority (TNSCZMA) vide letter dated 08.01.2018; (ii) The private patta lands which are not owned by M/s IREL, mining will be carried out only after obtaining the consents from the concerned land owners as per the provisions of the Mineral Concession Rules, 1960 and MMDR Act, 1957, (iii) During mining operations, the village built up areas, roads, human settlement areas will not be disturbed, (iv) The tailings will be backfilled only in the mined out pits, (v) AERB clearance for obtaining license under the Atomic Energy (Radiation Protection) Rules, 2004 for operation of BSM (Beach Sand Minerals) facility, (vi) Occupational health and safety measures, especially concerning radiation to be enhanced for workers who are having some ailments like hypertension, diabetes etc. They should have health checkup once in six months; and (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.

(2.12). Mining of rare/atomic minerals (Beach mineral sand @ 1.0 million TPA (ROM) along with Mineral Separation Plant by M/s. Indian Rare Earths Ltd. (IREL), located at village Manavalakurichi, Lakshmipuram & Colachel, taluk Kalkulam, District Kanyakumari, Tamil Nadu (ML area of 141.2269 ha) (Consultant: M/s Bhagavathi Ana Labs Limited, Hyderabad) [F. No. J-11015/387/2010.IA.II(M); Proposal No. IA/TN/MIN/71873/2011] -Re-Consideration of EC

The proposal of M/s Indian Rare Earths Limited is for mining of rare/atomic minerals to produce the products (viz. Ilmenite, Rutile, Zircon, Monazite and Garnet) with production capacity of beach mineral sand @ 1.0 million TPA (ROM) along with Mineral Separation Plant. The mine is located in the village Manavalakurichi, Tehsil: Kalkulam District Kanyakumari and State: Tamilnadu The 141.2269 ha project area falls between 08°08'14" - 08°10'31" N Latitudes and

77°15'50" - 77°18'16" E Longitudes. The Mining Lease area is available in the Survey of India Toposheet No 58H/8/NW.

The proposal is for production of 1.0 million TPA (ROM) of beach sand mineral along with a mineral separation plant with a throughput capacity of 200 tonnes/hr to produce 90,000 TPA of finished product (Illeminite, Rutile, Zircon, Monozite and Garnet). It was also stated that there is no enhancement of capacity either in mining or in the Mineral Separation Plant (MSP).

The Proposal was earlier appraised before EAC in its meeting held during June 26-28, 2013 wherein the EAC (Non-coal) **recommended** the proposal for environmental clearance for the production of 1.0 million TPA of beach sand mineral along with a mineral separation plant with a throughput capacity of 200 tonnes/ hr to produce 90,000 TPA of finished products (Illeminite, Rutile, Zircon, Monozite and Garnet) with special conditions, that (i) The private patta lands which are not owned by M/s IREL, mining will be carried out only after obtaining the consents from the concerned land owners as per the provisions of the Mineral Concession Rules, 1960 and MMDR Act, 1957, (ii) During mining operations, the village built up areas, roads, human settlement areas will not be disturbed, (iii) The tailings will be backfilled only in the mined out pits, (iv) Necessary clearance from the Coastal Zone Management Authority shall be secured, (v) AERB clearance for obtaining license under the Atomic Energy (Radiation Protection) Rules, 2004 for operation of BSM (Beach Sand Minerals) facility, and (vi) Occupational health and safety measures, especially concerning radiation to be enhanced for workers who are having some ailments like hypertension, diabetes etc. They should have health checkup once in six months.

The ML area 141.2269 ha was granted by Tamilnadu Govt., vide G.O.Ms.No.1114 dt.12.08.1981 for 20 years. The mining lease deed was executed on 27.06.1984. IREL has submitted the Application in time for renewal of Mining Lease on 24.03.2003 to Govt. of Tamilnadu. 141.2269 ha ML area is under deemed extension as per Rule 24A(6) of MC Rules 1960 and Rule 6(11) of Atomic Mineral Concession Rules 2016, dated: 11.07.2016. The mining lease of 141.2269 ha contains atomic mineral with a grade more than threshold (0.75% of Monazite in total HM) as per schedule "A" of Atomic Mineral Concession Rules, 2016 and as per the Rule 6 (11) of AMCR- 2016, the mining lease is deemed to have been granted for a period until the entire reserve of minerals in the mine is exhausted.

PP reported that the ML area falls under Coastal Regulation Zone (CRZ) declared by Government of India. MoEF, Government of India gazette notified the CRZ-1991 notification (SO 114(E), dated: 19.02.1991) for regulating the activities within CRZ. As per the preamble of CRZ-1991 notification, the provisions of CRZ-1991 notification are applicable only for - setting up and expansion of industries, operations or processes, etc. in the said Coastal Regulation Zone. PP reported that as ML the area has been operating since 1984 i.e. pre-CRZ-1991 notification and there is neither any setting up nor any expansion activities involved over 141.2269 ha, clearance under CRZ-1991 notification was not attracted. The mineral

separation plant is located within the ML area. The mining and mineral separations are integral activities. Tamilnadu Pollution Control Board granted the CTO under the Air Act and the Water Act for production total 1,14,600 TPA (atomic minerals viz: Ilmenite, Rutile, Zircon, Zircon, Monazite and Garnet) vide order dated 02.07.1991. The atomic minerals produced by IREL, Manavalakurichi are of strategic importance and find applications in Atomic Energy, Space and Defence sectors of the Country. Atomic Mineral Regulatory Board, Government of India granted licence for the production 1,34,000 TPA of atomic minerals in favour of IREL, Manavalakurichi. TNPCB conducts the monitoring of IREL activities in regular intervals and the pollution load parameters are within the permissible limits. The CTO issued by TNPCB is valid upto 31.03.2018. The production levels of atomic minerals by IREL, Manavalakurichi are within the permissible limits and the mining operations are carried out as per the approved mining plan. CRZ-1991 notification does not contemplate obtaining clearances for Renewal of Mining Leases.

The Government of India notified the EIA-1994 notification vide SO 60(E), dated: 27.01.1994 imposing restrictions and prohibitions on the expansion and modernization of any activity or new projects from the date of publication of EIA-1994 notification being undertaken in any part of India unless environmental clearance has been accorded by the Central Government. Under para 3(a) of the EIA-1994 notification, it is explained that Nothing contained in EIA-1994 Notification shall apply to the mining projects of major minerals with lease areas more than 5 ha covered by Notification S.O. 114 (E) dated 20th February, 1991 (i.e. CRZ-1991 notification). PP reported that as ML area falls under CRZ-1991 notification, the provisions of EIA-1994 notification and the circulars/OMs issued there under are not applicable. Further, IREL, Manavalakurichi submitted the RML application in time during 2003 with a respect to renew the ML area for a further period of 20 years. The ML area is under deemed extension w.e.f. 26.06.2004 as per the Rule 24A(6) of MCR 1960. Ministry of Mines vide notification (GSR 510(E), 18.07.2014) amended the Rule 24A(6) of MCR-1960 which stipulates the mining lease is deemed to be extended by another two years from the date of the notification or State Govt. passes the orders whichever is earlier. On 11.07.2016, Ministry of Mines has notified the Atomic Mineral Concession Rules (AMCR) 2016 under section 11B of MMDR Act 1957. The monazite content over 141.2269 ha ML area is more than the threshold values as prescribed under Schedule-A of AMCR 2016. Rule 6(11) of AMCR-2016 stipulates that for the existing mining leases granted to a Govt. Company shall be deemed to have been granted till reserve of such minerals in the mine are exhausted. After enforcement of AMCR-2016, there is no concept of Renewal of Mining Lease for 141.2269 ha ML area till exhaust of atomic minerals. The Committee deliberated the issues.

The mining plan has been approved for 141.2269 ha vide order nos: a) AMD/MPA/3M/IREL-MLC/2005/ 934, dated 26.05.2005 and b) TN/KK/MP/GNT-1652-/SZ, dated: 01.08.2006. Scheme of mining for 141.2269 ha ML area has been prepared as per the latest guidelines of Indian Bureau of Mines and got approved by IBM, Chennai on 04.09.2015 and AMD, Hyderabad on 17.11.2016 for undertaking mining operations over 141.2269 ha with a production quantity of 1.0

million tonnes of Beach Mineral sand per annum. Tamilnadu State Pollution Control Board granted Consent to Operate in favour of IREL, Manavalakurichi for the production of 1,14,600 t of Beach Sand Minerals (Ilmenite, Rutile, Zircon, Monazite and Garnet) on 02.07.1991 under the Air (Prevention & Control of Pollution) Act 1981 and the Water (Prevention & Control of Pollution) Act 1974. Mineral separation plant is located within 141.2269 ha ML area. The lease comprises both replenishable and non-replenishable (inland) deposit. Replenishable deposit occurs in inter tidal area (between LTL & HTL) due to wave action. Mineral sand deposited in the beach area (inter tidal area) is mined upto a depth of 0.2 to 0.3 meters manually by using spade and baskets. In the inland area (non-replenishable deposit), mining is carried out by deploying excavator-tipper combination followed by dredging operations. Mining and backfilling activities are carried out simultaneously in inland deposit areas.

PP informed that the Proposal was earlier appraised before EAC in its meeting held during June 26-28, 2013 wherein the EAC (Non-coal) recommended the proposal. Further, the Ministry intimated the PP that the EC will be issued to IREL after receipt of clearance from Tamilnadu State Coastal Zone Management Authority. Simultaneously in line with the above activities, IREL engaged Institute of Remote Sensing, Anna University, Chennai (MoEFCC Authorized Agency) during 2012 for preparation of the CRZ maps as per CRZ-2011 notification. IREL, MK submitted the application for obtaining CRZ clearance as per CRZ-2011 notification to District Coastal Zone Management Authority (DCZMA), Kanyakumari District, Tamilnadu on 09.02.2013. DCZMA recommended the proposal and forwarded to Tamilnadu State Coastal Zone Management Authority (TNSCZMA) on 19.07.2013. IREL presented the details of 141.2269 ha for grant of CRZ clearance before TNSCZMA, during its meeting on 09.10.2013. TNSCZMA vide their letter dated: 13.11.2013 recommended for grant of CRZ clearance for 141.2269 hecmts mining lease area of IREL under CRZ-2011 notification with a condition "4(b)" that there should not be any mining in Coastal Regulation Zone-1(B), i.e. in the inter-tidal zone and forwarded to MoEF for further action.

IREL requested EAC (CRZ), MoEFCC during 130th meeting on 24.01.2014 at MoEFCC, New Delhi to delete the condition "4(b)" of TNSCZMA recommendations dated: 13.11.2013 and furnish their recommendations permitting IREL, Manavalakurichi to continue the mining of rare minerals in the intertidal zone for grant Environment Clearance – as mining of rare minerals is a permissible activity in CRZ as per CRZ-2011 notification. Further, MoEFCC, IA-III Division, vide letter dated 02.06.2014, sought clarifications from TNSCZMA with respect to mining of rare minerals in the intertidal zone. TNSCZMA vide letter dated 05.08.2014 further sought clarifications from IA-III Division, MoEFCC, New Delhi w.r.t. mining in the CRZ-I(B) intertidal area and mining between 200m-500m in CRZ-III area as there is no clarity in the CRZ-2011 notification. On 11.04.2016, IA-III Division, MoEFCC intimated TNSCZMA about the opinion received from the Ministry of Law and Justice on mining of rare minerals in the intertidal zone and between 200m-500m of CRZ-III area. On 06.06.2016, TNSCZMA requested MoEFCC to amend the CRZ-2011 notification based on the opinion received from the Ministry of Law and

Justice to bring clarity during issuance of recommendations from Coastal Zone Management Authorities.

Based on the above mentioned issues, the MoEFCC vide GSR 1227 (E), dated 06.10.2017, has amended the CRZ-2011 notification, permitting manual mining of atomic minerals in the inter-tidal zone by such agencies as authorized by the Department of Atomic Energy (DAE) as per mining plan approved by the DAE, provided that the manual mining operations are carried out only by deploying persons using baskets and hand spades for collection of ore or mineral within the inter-tidal zone as per approved mining plan.

The Tamil Nadu State Coastal Zone Management Authority (TNSCZMA) has **recommended** the proposal in its meeting held on 29.11.2017 for clearance under CRZ Notification 2011 subject to certain following specific conditions.

- (i). The unit shall adhere to the guidelines / stipulations / conditions of mining lease and shall follow the mining plan.
- (ii). The unit shall not use any explosives for the mining. No blasting or drilling for mining shall be carried out.
- (iii). In Inter-tidal zone, manual mining operations are to be carried out, only deploying persons using baskets and hand spades for collection of ore or minerals as per the approved mining plan
- (iv). The unit shall ensure that the mined area is refilled with the tailings. The aesthetic appeal of the beaches should be retained by avoiding artificial sand dunes of greater heights
- (v). The beach profile shall be monitored periodically with the maintenance of relevant records / measurements / details so as to take appropriate remedial action on the event of any adverse impacts.
- (vi). There shall be no extraction of ground water without permission from the Competent Authority.
- (vii). There should not be any sea water intrusion due to the project activities and periodical water quality monitoring shall be conducted.
- (viii). No road shall be formed in CRZ
- (ix). No liquid or solid waste shall be generated and disposed off in CRZ
- (x). The Unit shall develop green belt within / outside mining area
- (xi). The unit shall not establish new mineral separation plant/processing unit within CRZ areas and also there should not be any expansion of existing mineral separation plant / processing unit
- (xii). The unit shall obtain consents, in appropriate stages from Tamilnadu Pollution Control Board.

Govt. of Tamil Nadu, vide letter no. 24116/EC.3/2017-1, dated 08.01.2018 has forwarded the recommendations of TNSCZMA to the MoEF&CC. Based on the recommendations the instant proposal is placed in this meeting.

The Committee deliberated the information submitted by PP and **recommended** the proposal for mining of rare/atomic minerals to produce the

products (viz. Ilmenite, Rutile, Zircon, Monazite and Garnet) in CRZ area with production capacity of beach mineral sand @ 1.0 million TPA (ROM) along with a mineral separation plant with a throughput capacity of 200 tonnes/hr to produce 90,000 TPA of finished product (Illemnite, Rutile, Zircon, Monozite and Garnet).

The Committee also **recommended the specific conditions** that (i) Implementation of recommendations provided by the Tamil Nadu State Coastal Zone Management Authority (TNSCZMA) vide letter dated 08.01.2018; (ii) The private patta lands which are not owned by M/s IREL, mining will be carried out only after obtaining the consents from the concerned land owners as per the provisions of the Mineral Concession Rules, 1960 and MMDR Act, 1957, (iii) During mining operations, the village built up areas, roads, human settlement areas will not be disturbed, (iv) The tailings will be backfilled only in the mined out pits, (v) AERB clearance for obtaining license under the Atomic Energy (Radiation Protection) Rules, 2004 for operation of BSM (Beach Sand Minerals) facility, (vi) Occupational health and safety measures, especially concerning radiation to be enhanced for workers who are having some ailments like hypertension, diabetes etc. They should have health checkup once in six months; and (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.

(2.13). Bainibasa Graphite Mining and Beneficiation Project with production capacity of 13272 TPA (ROM) by M/s Pradhan Industries, located at Village - Bainibasa, P.O. Bhairabagada, Tehsil : Muniguda, Dist: Rayagada, Odisha (MLA-58.704ha) (Consultant: Global Tech Enviro Experts Pvt. Ltd. Bhubaneswar)[File No. J-11015/40/2017-IA-II(M); Proposal no. IA/OR/MIN/62694/2017]-Re-Consideration of EC

The proposal of M/s Pradhan Industries is for Bainibasa Graphite Mining & Beneficiation Project of 13272 TPA (ROM) capacity in 58.704 Ha of M.L. area. The mine is located at Village - Bainibasa, P.O. Bhairabagada, Tehsil: Muniguda, Distt: Rayagada, Odisha. The mine lease falls between the latitudes and longitudes of 19°38'47.059"N to 19°38'08.76"N and longitude 83°30'14.78"E to 83°29'38.19"E and Survey of India topo sheet Nos. 65 M/6 and 65 M/10.

The Proposal of EC was earlier considered by the EAC in its meeting held during January 18-19, 2018 wherein the Committee **deferred** the proposal and sought the requisite information which is as below:

- (i). PP to submit an undertaking clearly saying that sand shall be included in concession agreement along with approved mine plan before selling to prospective buyers.
- (ii). PP to submit current status of 14.585 Ha non-forest land as per deliberations made in preceding paras.
- (iii). PP to provide land-use break up in the Table mentioning the 'Present land

use'. 'Land-use at the end of scheme period and 'Conceptual land-use' in approved mine plan

- (iv). PP to submit revamped Occupational hazard Plan considering risk based approach and in line with DGMS requirements addressing the hazards from heavy metal such as lead (Pb) found in tailings.
- (v). PP to revise the questionnaire as the same is not in conformity with the EIA/EMP report.

In this context, PP has submitted the information which is presented as below:-

- (i). Affidavit/Undertaking of M/s Pradhan Industries, dated 06.02.2018 has submitted which state that sand (minor mineral) generated from the tailings of the beneficiation process of the Graphite ore inside the mining lease shall be included in the concession agreement with due approval of the mining plan before selling sand to prospective buyers. Also stated that before selling the same commercial sand PP shall take requisite permission from the MoEF&CC, as per minor mineral regulations.
- (ii). PP submitted the current status of the 14.585 ha of non-forest land. The total mine lease area is 58.704 Ha, out of which 44.038 ha is forest land and 14.585 waste land.
- (iii). PP has provided land-use break up in the Table mentioning the 'Present land use', 'Land-use at the end of scheme period and 'Conceptual land-use' in approved mine plan. The same was deliberated by the Committee.
- (iv). PP submitted revamped Occupational hazard Plan considering risk based approach and in line with DGMS requirements addressing the hazards from heavy metal such as lead (Pb) found in tailings. The same was deliberated by the Committee.
- (v). PP submitted the revised questionnaire.

Based on the deliberation made by PP, the Committee **recommended** the EC proposal for Bainibasa Graphite Mining and Beneficiation Project with production capacity of 13272 TPA (ROM).

The Committee also recommended **additional specific conditions** viz. (i) The Proponent should 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) The monitoring of PM_{2.5} in the vehicle emission shall be conducted to improve the mine environment and report submitted to the Regional Office of the MoEFCC; (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.;

(iv) PP shall take necessary permission for mining of sand (minor mineral) generated from the tailings of the beneficiation process of the Graphite ore inside the mining lease and be included in the concession agreement with due approval of the mining plan before selling sand to prospective buyers; (v) Implementation of Occupational hazard Plan on risk based approach and in line with DGMS requirements addressing the hazards from heavy metal such as lead (Pb) found in tailings; and (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.

(2.14). Mahabir Manganese Mine with expansion of production capacity of manganese ore from 510.72 to 8500 TPA (ROM) by M/s Vijay Kumar Ojha, located at Village Barabaljori, Tahsil Noamundi, West Singhbhum District (MLA-21.246 ha) Jharkhand (Consultant: Grass Roots Research & Creation India (p) Ltd) [File No. J-11015/213/2012-IA.II (M); Proposal No. IA/JH/MIN/7878/2012-Consideration of EC

The proposal of M/s Vijay Kumar Ojha is for expansion of production capacity of manganese ore from 510.72 to 8500 TPA (ROM) in the mine lease area of 21.246 ha. The mine is located near PO-Barajamda, District-West Singhbhum, Jharkhand. The co-ordinates of Mine Lease area are: Latitude: 22 9' 56"N to 22 10' 21.2"N, Longitude: 85 27' 42.4" E to 85 28' 3.6" E on Survey of India toposheet number 73 F/8 (site). The Project is located in Seismic Zone-III. It is a category A project as the mine lease area is located within 5km from the interstate boundary of Odisha and Jharkhand.

The proposal of TOR was placed before the Expert Appraisal Committee in its meeting held during November 21st-23rd, 2012 wherein the Committee prescribed the TOR. The MoEF&CC has issued the Terms of Reference (ToR), vide letter No. No. J-11015/213/2012-IA.II (M), dated 18th February, 2013. PP has submitted the EIA/EMP Report in 2015 after conducting the Public Hearing.

The Member Secretary, EAC (Non-Coal) informed the Committee that a Carrying Capacity Study in Saranda Forest division in State of Jharkhand is coordinated by FC Division based on the 1st Report on illegal mining of iron and manganese ore by Justice M.B. Shah. The instant mine lease area also falls in Saranda Forest area. Further, MoEF&CC in a meeting held on 03.07.2014 in the chamber of the then Secretary (EF&CC) wherein DGF, ADGF(FC), JS(AT), IGF(FC), Director (HC), AIG(TC) and Director (VPU) were present, had taken the following decisions:- (i) EC and FC (both Stage-I and Stage-II) to new mines for which

mining lease has not been executed and consequently the mining activities have not started, so far, will not be accorded till completion of the carrying capacity study. (ii) Grant of Stage-II FC for diversion of forest land located within the mining leases in which mining activities are already being carried out, and grant of EC for expansion of production capacity in such mining leases will be considered without waiting for outcome of the carrying capacity study, provided Stage-I FC for diversion of forest land involved has already been accorded. (iii) Till completion of the carrying capacity study, Stage-I FC and EC (if required) for renewal of mining lease will be considered only for the already broken up forest area. (iv) For cases involving violation, necessary action would be taken as per the existing guidelines and further processing of these cases in line with (ii) and (iii) above would be subject to the outcome of action taken on such violations. Prior to issue of Stage-II FC by FC Division, the status of EC will be checked up from IA Division in the context of violations. Based on the above decision PP has requested to appraise the project before EAC. Accordingly Proposal is considered in the EAC meeting.

Project Proponent reported that the first mining lease was granted in favor of Shri Ratanlal Surajmal for 20 years on 21.01.1951 by Govt. of Bihar. The first renewal of mining lease was granted from 21.01.1971 to 20.01.1991 for 20 years. During the renewal period the mining lease was transferred to Shri Gyan Chand Jain for a period of 20 years on 20.01.1971. The application of second renewal of mining lease was applied by Shri. G.C Jain on vide letter no. MML-4/30/R/M dated 20.7.1990 for a period of 20 years from 22.01.1991 to 21.01.2011. Further the mining lease was transferred in the favour of Shri Vijay Kumar Ojha on 01.04.1990 by virtue of an indenture made on 22.04.1990 between Shri Gyanchand Jain, Shri Vijay Kumar Ojha and the State Government of Bihar for the unexpired period of Original lease i.e. 21.01.1991. The third renewal was granted 13.02.2015, vide letter no.298/M, Ranchi for a period of 31.03.2020. The Mining Plan is approved by IBM, vide letter No. KOL/SB (W)/Mn /MP-241, dated 04.09.2015.

PP reported that the Ministry, vide letter J-11015/1043/2007-IA.II (M), dated 14th July, 2008 has granted EC for production capacity of manganese ore of 510.72 TPA (ROM). The Regional Office MoEFCC vide letter dated 27.02.2015 has submitted the compliance report of earlier EC condition. The Committee deliberated the compliance of earlier EC conditions and noted that the compliance are adequate.

The method of mining will be OTFM (other than fully mechanized method). The excavation will be done by drilling and blasting. After blasting, the Mn ore is sized and sorted manually. The OB excavation will be done by drilling and blasting and removal of blasted material using small excavator (0.9 m³) and tippers (4.5 m³). During mining operation 4.0 m high and 6-8 m wide benches are proposed. The bench slope will be maintained at 37° to 40°. Same procedure will be followed by extending the quarries up to the end of the life of the mine. Ore is transported to stack and from stack to different buyer's point by tippers/trucks. The loading is done manually. Traffic Analysis survey showed that no. of trucks would be deployed 3 per day (10 tonnes capacity each) which increase 27 PCUs per day

(considering both loaded and empty trucks) and the level of service (LOS) is likely to change from excellent to very good on PWD Road. Mine working will not intersect water table. The total water requirement is 25 KLD including water demand for domestic purpose, dust suppression and Plantation which shall be met by tanker supply. No Objection Certificate has been obtained in this regard. Total Geological Reserve is 1,00,744 Tonnes, Total Mineable Reserve 99,624 Tonnes. The manpower requirement for the proposed project is 75 workers.

PP reported that no any Eco-sensitive areas i.e. National Park and Wild Life Sanctuary lie within the 10 Km radius of the lease area. The NOC vide letter dated 04.04.2008 issued by DFO Chailbasa, Jharkhand regarding National Park/Wildlife Sanctuary or any other Eco sensitive Area within the 15 Km radius of the lease area. No forest land (i.e. Reserved Forest/ Protected Forest) falls within the lease area. The NOC regarding non-involvement of forest land issued from DFO, District Chailbasa, South Division vide its letter dated 06.05.2008. There are two Schedules-I & Schedule II species found in the study area and for that conservation plan has been prepared and submitted for approval. There is no R&R plan is applicable for this project as the mine lease area lies entirely on the revenue land and there is no establishment on the site.

The baseline data is collected for Pre Monsoon Season i.e. March 2013 to May 2013 and the Air, Noise, Soil and water quality are within permissible limits. The proponent mentioned that the impact on the present noise levels due to mining operations will be restricted to the work zone areas only. The impact on the ambient noise levels will not be felt in the settlement areas due to masking effect with the existing noise levels. There will be drilling and blasting envisaged in the manganese mining. Blasting will be well designed and arranged in such a way that which will lead to less vibration.

The Public hearing was conducted on 20.06.2014 at Barabajori Government College, District- West Singhbhum under the chairmanship of Mr. Ajit Sankar- Additional Deputy Commissioner Chaibasa, West Singhbhum Jharkhand. The major issues raised during the Public Hearing are employment generation, dust suppression, benefit of the project, trees to be planted, medical camp, management of mud and red soil, dust suppression and provision of social development of the village etc.

The PP submitted that the green belt shall be developed as per approved eco-friendly mine lease plan and as per CPCB guidelines. The project proponent shall develop greenbelt in the Greenbelt around peripheral portions of the ML and on top soil dumps and either side of the haul roads. Indigenous species with the consultation of the State Forest Department shall be planted and maintained. The Plantation will also be done along with the road of transportation, premises of Gram Panchayat Bhawan, Hospitals, schools etc. PP reported that a budget of ₹ 1.5 Lakhs per annum is proposed for occupational health safety of mine workers. Regular health check-up will be conducted by doctors and villagers also take advantage of that. Dust mask will be provided to the workers to protect themselves

from dust. Awareness training programme will also be organized periodically to the workers to minimize the impact of air pollution.

The cost of project is Rs. 2 crores. PP has earmarked Rs. 22 lakhs as Capital Cost and Rs. 10.5 Lakh as Recurring Cost per annum, has been proposed towards Environmental Protection Measures. Further, Rs. 4.0 lakhs per annum have been earmarked towards CSR activities. PP reported that there is no litigation pending against the project.

PP reported that District Mine Office, Chaibasa vide letter no. 2033, dated 20.09.2017 has issued the demand notice of Rs. 33, 60,863/= in pursuance of Hon'ble Supreme Court's judgment dated 2nd August, 2017 in WP No 114/2014 in the matter of 'Common Cause Vs UoI'. Further, District Mine Officer, Chaibasa vide letter no. 350, dated 23.02.2018 has confirmed that the lease owner has paid Rs. 33, 60,863/=in response of the demand letter issued by Mine Officer.

Based on the deliberation made by PP, the Committee **recommended** EC proposal for Mahabir Manganese Mine with expansion of production capacity of manganese ore from 510.72 to 8500 TPA (ROM) **subject to comments of FC division on Carrying Capacity Study being conducted by ICFRE.**

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

(2.15). Mining of River Sand with proposed production capacity of 7.5 Lakh TPA (ROM) by M/s Indrajeet Singh Jhala, located at Revenue village(s) of Tehsil – Jhalrapatan & Ramganjmandi, Districts- Jhalawar and Kota, Rajasthan (MLA-1695.06ha)– (Consultant: M/s Udaipur Min Tech Pvt. Ltd., Udaipur) [File No.-J-11015/328/2013-IA.II (M), Proposal No.-IA/RJ/MIN/25185/2013] –Re-Consideration of EC

The proposal of M/s Indrajeet Singh Jhala, is for mining of River Sand, (Minor Mineral) with proposed production capacity of 7,50,000 TPA (ROM). The mine lease area is located at village (s) - Bambori, Bavrikheri, Aroliya, Biriyaikherikhurd, Gindora, Jhalrapatan, Bakshpura, Bagdar, Mundalyakhera,

Chand loi, Sagoriya, Rup pura, Kanwara, Kanwari, Samiya, Gadari, Dhavli, Sarangakhera, Narli, Binda, Jatamali, bhumari, Semlibhawani, Chanvali, Gurariya, Asondiya, Khijarpur, Bhaumara, Soyatkalan, Gugalheri, Gunjari, Achravan, Matwasa, Gadarwaranurji, Barana, Ratanpura, Mori, Kanskheri, Kherkhera&Barodiya Tehsil: Jhalarapatan of District: Jhalawar and Tehsil-Ramganjmandi of district Kota, State, Rajasthan in the mine lease area of 1695.06 ha. The mine lease area lies on the River bed of Badi Kali Sindh, Ahu, Chandra Bhaga, RewaNadi & their Connected Flow Nallahs.

The proposal for EC was earlier appraised by EAC in its meeting held during May 27-29, 2015 wherein the Committee recommended the proposal for the grant of EC. Afterwards, based on the recommendations of the EAC w.r.t. replenishment study, the Ministry informed the PP vide its letter no. J-11015/328/2013-IA.II (M), dated 04.01.2017 to conduct a scientific replenishment study and submit the report to the Ministry for further consideration before EAC.

PP also informed that in accordance to Hon'ble Supreme Court of India's orders dated 25.11.2013, 24.02.2014 and 27.03.2014 (In Civil Appeal No. 9703-9706 of 2013) production of ~3,49,915 Tonnes of Bajri has been made during December 2013 to November 2017.

Now PP vide letter dated 01.02.2018 submitted the replenishment study report which was conducted during pre-monsoon (May 2017) and post monsoon season (October 2017) by field survey (volumetric survey) method and accordingly the proposal is placed in this meeting.

PP reported that firstly Volumetric Survey was done in the proposed mining blocks in pre monsoon season from where mining was done. By this method spot RL/level was marked and mapped and sections were drawn. After that for post-monsoon season again spot RL/level was marked and mapped on the same location and sections were drawn. Both the sections (pre-monsoon and post-monsoon) are superimposed and volume has been calculated and given in below table.

Table: River Block volume calculation

Sr. No.	Area of Mining Block (in Sq.mtr)	Thickness of area Pre monsoon season	Thickness of area Post monsoon season	Volume in cu.m	In tonnes (vol. X bulk density, 1.6)
1	616487 sq.m, Block-A Badi Kali Sindh	0.00 m.	0.30 m.	184946.1 cu.m	295913.76 t
2	232859 sq.m, Block-A AU or Ahu River	0.00 m.	0.28 m.	65200.52 cu.m	104320.832 t
Total				250146.62	400234.592

	cu.m	t
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The replenishment of Sand/Bajri has been calculated by volumetric survey method and amount of sand deposited in the post monsoon season was calculated. PP reported that in the previous year's mining was done in two block and highest production achieved is 2,36,033 tonnes in the year 2014 – 15 against which, total 400234.6 tonnes sand (in 2 blocks) has deposited in post monsoon season of 2017. The details are as below:

Lease Area	Estimated Reserves (as per approved mining plan)	Annual Production capacity (as per approved mining plan)	Estimated Annual replenishment	Replenishment Status vis-à-vis planned production
1695.06 ha	48280968 tonnes	7,50,000 tonnes	4,00,234.6 tonnes	Replenishment less than planned annual production
Note: Amount of sand deposited is 4,00,234.6 tonnes and proposed production is 7,50,000 tonnes i.e. approx. 53% replenishment has been done.				

The Committee observed that unregulated and unscientific river sand/ bajri/ gravel mining causes degradation of rivers, bank erosion, depletion of sand in the streambed, enlargement of river mouths & coastal inlets, threat to infrastructures like bridges, dams, guide banks etc. It adversely affects the fertility of adjoining agricultural land, groundwater profile & recharging, alters soil & moisture conditions, biodiversity, minimise sub-surface flow and causes channel instability. As these sand deposits are surrounded by agricultural fields, agricultural activity would be adversely affected. The Member Secretary informed that the Ministry had published Sustainable Sand Mining Guidelines in 2016 with an objective of sustainable sand extraction and its overall management including transportation. The guidelines had also emphasised on promotion of manufactured sand, artificial sand and alternative technologies in construction materials and processes through development of slag sand, sand from stone chips and its certification under BIS, so as to reduce the dependence on naturally occurring sand and gravel.

The Committee made detailed deliberations and observed that the river sand mining proposals for the State of Rajasthan cannot be governed by annual river replenishment studies alone and there is a need for caution in sand/ bajri mining of these paleo deposits. **The Committee also observed that the Consultant has not presented the data in the Scientific Replenishment Study report as the same was accepted to be rough estimate and non-representative of the actual replenishment status.** Considering the irregular nature of the rainfall and resultant non-uniformity in arriving at the sand replenishment status, the following is noted:

- (i). The DMG, Govt. of Rajasthan is required to demarcate the stretch of land (lease) in consultation with State Irrigation Department on which it wants to permit river/ sand mining as the current practice of granting whole Tehsil as a lease is not viable from environmental point of view as it could impact the agricultural and groundwater profile over a large area;
- (ii). Based on such area identification, DMG, PP and Consultant are required to identify the cross section on which the replenishment study shall be undertaken for calculation of replenishment amount/ rate, as the case may be;
- (iii). The areas for 'carrying out mining' and cross-sections for 'monitoring replenishment' are required to be demarcated through latitudes and longitudes along with the Original Ground Level (OGL) of the cross-section and shall be duly authenticated by DMG, Govt. of Rajasthan and State Irrigation Department respectively. The future replenishment assessment may be undertaken based on OGL duly authenticated by State Irrigation Department. No mining shall be carried outside the demarcated area;
- (iv). The maximum depth of mining shall be restricted to **1.0 meter** from the OGL;
- (v). PP shall use only Scrapers for mining to ensure that the mining depth be maintained as **1.0 meter**. No other heavy machinery like bucket excavators, JCB machines etc. shall not be used for excavation/digging which may adversely impact the aquatic biota. The PP shall have to ensure that during the course of mining, a levelled cross section is made (to the extent possible) so that replenishment studies in future are carried out with ease and transparency and depth of deposited material is measured. The DMG, Rajasthan shall ensure that levelled cross section is made by PPs before the onset of next rainfall season and the same be communicated to MoEFCC.

The Committee made detailed deliberations on the issues mentioned in preceding paragraphs and noted that there is a requirement of identification of active mining area within leased river stretches and subsequent identification and preparation of cross-section for assessing replenishment of sand in coming years. Hence, mining permission is technically required to be granted so as to conduct replenishment studies in future and demonstrate the same to State Govt. to regulate mining of paleo deposits in future. Accordingly, **EAC recommended mining of river sand/ bajri up to 25% capacity of the annual proposed production capacity subject to submission of information and undertaking** as below:

- (i). DMG, State Government to submit demarcated river stretch through latitudes and longitudes (out of the total lease) where river sand/bajri mining can be permitted based on available reserves and Original Ground Level (OGL) at each cross section in consultation with State Irrigation

Department;

- (ii). PP and Consultant to submit latitudes and longitudes of the identified cross section, duly authenticated by State Government, which shall be used for replenishment study in future for calculation of replenishment amount/ rate;
- (iii). PP to give undertaking that only Scrapers shall be used for mining to ensure that the mining depth be maintained as 1.0 meters (max.) from Original Ground Level and No other heavy machinery like bucket excavators, JCB machines etc. shall be used which may adversely impact the aquatic biota;
- (iv). State Government of Rajasthan shall regulate the mining operations made by PP and submit report to MoEFCC on quarterly basis. It shall also be ensured that levelled cross section is made before the onset of next rainfall season; and
- (v). State Department of Mines & Geology and PP are required to submit District Survey Report (DSR) in line with provisions made in Ministry's notification dated 15.01.2016.

(2.16). Mining of River Sand with proposed production capacity of 7.5 Lakhs TPA (ROM) of Bajri by M/s Indrajeet Singh Jhala, located at Revenue Villages- Parpaili, Mundla, Bishniya, Chaumahla, Gangdhar, Malharganj, Pipakheri, Uncha Bardlya of Tehsil-Gangadhar, District-Jhalawar, Rajasthan (MLA-1179.84ha) (Consultant: M/s Udaipur Min Tech Pvt. Ltd., Udaipur) [File No. J-11015/327/2011-IA.II (M); Proposal no. IA/RJ/MIN/72786/2016-Re-Consideration of Environment Clearance

The proposal of M/s Indrajeet Singh Jhala is for River Bed mining project of Bajri (Minor Mineral) with production capacity of 7.5 Lakh TPA (ROM) of Bajri. The mine lease area is located at near villages: Parapili, Mundla, Bishniya, Chaumahta, Gangdhar, ,Pipakheri, Uncha Bardlya, Lakha kheri parmar, Chiri, Sarwar, Magal, Unhel, Kishangarh, Karmakheri, Chara, Tonkra, Tehsil-Gangdhar and Distt.- Jhalawar, Rajasthan over an area of 1179.84ha. Proposed production of Bajari is 7,50,000 TPA. The applied lease area lies between Latitudes & Longitudes 24° 01'32.47" - 23° 47'32.21" ' ' N and 75°42'02.82' ' - 75° 27'37.45' ' ' E respectively.

The proposal for EC was appraised by EAC in its meeting held during December 10-11, 2014 wherein the Committee recommended the proposal for the grant of EC. Afterwards, the Environmental Clearance was issued by MoEF & CC, vide letter no. J-11015/327/2013-IA.II (M), dated 25.02.2016. The matter was further examined in the Ministry and accordingly EC was kept in abeyance vide MoEFCC letter dated 14.12.2017 to conduct a scientific replenishment study and submit the report to the Ministry for further consideration before EAC.

PP also informed that in accordance to Hon'ble Supreme Court of India's orders dated 25.11.2013, 24.02.2014 and 27.03.2014 (In Civil Appeal No. 9703-9706 of 2013) production of ~3,49,915 Tonnes of Bajri has been made during December 2013 to November 2017.

Now PP has submitted the replenishment study which was conducted during pre-monsoon (May-2017) and post monsoon season (October 2017) by field survey (volumetric survey) method and accordingly the proposal is placed in this meeting.

PP reported that firstly Volumetric Survey was done in the proposed mining blocks in pre monsoon season from where mining was done. By this method spot RL/level was marked and mapped and sections were drawn. After that for post-monsoon season again spot RL/level was marked and mapped on the same location and sections were drawn. Both the sections (pre-monsoon and post-monsoon) are superimposed and volume has been calculated & given in below table.

Table: River Block volume calculation

Sr. No.	Area of Mining Block (in Sq.mtr)	Thickness of area Pre monsoon season	Thickness of area Post monsoon season	Volume in cu.m	In tonnes (vol. X bulk density, 1.6)
1	323055 sq.m, Block-A Sipra River	0.00 m.	0.30 m.	96916.5 cu.m	155066.4 t
2	298511 sq.m, Block-B Sipra River	0.00 m.	0.28 m.	83583.08 cu.m	133732.93 t
3	351588 sq.m, Block-A Chhoti Kali Sindh River	0.00 m.	0.25 m.	87897.0 cu.m	140635.2 t
4	241706 sq.m, Block-B Chhoti Kali Sindh River	0.00 m.	0.35 m.	84597.1 cu.m	135355.36 t
5	136239 sq.m, Block-A Chacbarm River	0.00 m.	0.39 m.	53133.21 cu.m	85013.14 t
Total				406126.89 cu.m	649803.03 t

The replenishment of Sand/Bajri has been calculated by volumetric survey method and amount of sand deposited in the post monsoon season was calculated. In the previous year's mining was done and highest production achieved is

3,61,561 tonnes in the year 2015–16 against which, total 649803.03 tonnes sand has deposited in post monsoon season of 2017. The details are as below:

Lease Area	Estimated Reserves (as per approved mining plan)	Annual Production capacity	Estimated Annual replenishment	Replenishment Status vis-à-vis planned production
1179.84ha.	28298270.4 tonnes	7,50,000 tonnes	649803.03 tonnes	Replenishment less than planned annual production
Note: Amount of sand deposited is 6,49,803.03 tonnes & proposed production is 7,50,000 tonnes i.e. approx. 86.64% replenishment has been done.				

The Committee observed that unregulated and unscientific river sand/ bajri/ gravel mining causes degradation of rivers, bank erosion, depletion of sand in the streambed, enlargement of river mouths & coastal inlets, threat to infrastructures like bridges, dams, guide banks etc. It adversely affects the fertility of adjoining agricultural land, groundwater profile & recharging, alters soil & moisture conditions, biodiversity, minimise sub-surface flow and causes channel instability. As these sand deposits are surrounded by agricultural fields, agricultural activity would be adversely affected. The Member Secretary informed that the Ministry had published Sustainable Sand Mining Guidelines in 2016 with an objective of sustainable sand extraction and its overall management including transportation. The guidelines had also emphasised on promotion of manufactured sand, artificial sand and alternative technologies in construction materials and processes through development of slag sand, sand from stone chips and its certification under BIS, so as to reduce the dependence on naturally occurring sand and gravel.

The Committee made detailed deliberations and observed that the river sand mining proposals for the State of Rajasthan cannot be governed by annual river replenishment studies alone and there is a need for caution in sand/ bajri mining of these paleo deposits. **The Committee also observed that the Consultant has not presented its data in the Scientific Replenishment Study report as the same was accepted to be rough estimate and non-representative of the actual replenishment status.** Considering the irregular nature of the rainfall and resultant non-uniformity in arriving at the sand replenishment status, the following is noted:

- (i). The DMG, Govt. of Rajasthan is required to demarcate the stretch of land (lease) in consultation with State Irrigation Department on which it wants to permit river/ sand mining as the current practice of granting whole Tehsil as a lease is not viable from environmental point of view as it could impact the agricultural and groundwater profile over a large area;
- (ii). Based on such area identification, DMG, PP and Consultant are required to identify the cross section on which the replenishment study shall be

undertaken for calculation of replenishment amount/ rate, as the case may be;

- (iii). The areas for 'carrying out mining' and cross-sections for 'monitoring replenishment' are required to be demarcated through latitudes and longitudes along with the Original Ground Level (OGL) of the cross-section and shall be duly authenticated by DMG, Govt. of Rajasthan and State Irrigation Department respectively. The future replenishment assessment may be undertaken based on OGL duly authenticated by State Irrigation Department. No mining shall be carried outside the demarcated area;
- (iv). The maximum depth of mining shall be restricted to **1.0 meter** from the OGL;
- (v). PP shall use only Scrapers for mining to ensure that the mining depth be maintained as **1.0 meter**. No other heavy machinery like bucket excavators, JCB machines etc. shall not be used for excavation/digging which may adversely impact the aquatic biota. The PP shall have to ensure that during the course of mining, a levelled cross section is made (to the extent possible) so that replenishment studies in future are carried out with ease and transparency and depth of deposited material is measured. The DMG, Rajasthan shall ensure that levelled cross section is made by PPs before the onset of next rainfall season and the same be communicated to MoEFCC.

The Committee made detailed deliberations on the issues mentioned in preceding paragraphs and noted that there is a requirement of identification of active mining area within leased river stretches and subsequent identification and preparation of cross-section for assessing replenishment of sand in coming years. Hence, mining permission is technically required to be granted so as to conduct replenishment studies in future and demonstrate the same to State Govt. to regulate mining of paleo deposits in future. Accordingly, **EAC recommended mining of river sand/ bajri up to 25% capacity of the annual proposed production capacity subject to submission of information and undertaking** as below:

- (i). DMG, State Government to submit demarcated river stretch through latitudes and longitudes (out of the total lease) where river sand/bajri mining can be permitted based on available reserves and Original Ground Level (OGL) at each cross section in consultation with State Irrigation Department;
- (ii). PP and Consultant to submit latitudes and longitudes of the identified cross section, duly authenticated by State Government, which shall be used for replenishment study in future for calculation of replenishment amount/ rate;
- (iii). PP to give undertaking that only Scrapers shall be used for mining to ensure that the mining depth be maintained as 1.0 meters (max.) from Original

Ground Level and No other heavy machinery like bucket excavators, JCB machines etc. shall be used which may adversely impact the aquatic biota;

- (iv). State Government of Rajasthan shall regulate the mining operations made by PP and submit report to MoEFCC on quarterly basis. It shall also be ensured that levelled cross section is made before the onset of next rainfall season; and
- (v). State Department of Mines & Geology and PP are required to submit District Survey Report (DSR) in line with provisions made in Ministry's notification dated 15.01.2016.

(2.17). Enhancement of production capacity from 15,000 TPA to 2,00,000 TPA (ROM) of Chanavada Soapstone Mine by M/s Krishna Miners Traders, located Near Village –Chanavada, Tehsil – Girwa, District – Udaipur, Rajasthan (ML Area – 83.491 Ha., M.L. No. 09/2000) (Consultant: M/s Udaipur Min Tech Pvt. Ltd., Udaipur) [File No. J 11015/317/2015-IA.II(M);Proposal no. IA/RJ/MIN/63433/2015]–Re-Consideration of EC

The proposal of M/s Krishna Miners Traders is for enhancement of production capacity from 15,000 to 2,00,000 TPA (ROM) of Chanavada Soapstone Mine in 83.491 Ha M.L. area. The mine is located at Village –Chanavada, Tehsil – Girwa, District – Udaipur, Rajasthan. The mining lease area falls between 24°16'30"N to 24°17'25"N and Longitudes 73°42'38"E to 73°43'03"E on the Survey of India Toposheet No. 45 H/1.

The Proposal of EC was earlier appraised before the EAC in its meeting held during April 27-28, 2017 wherein the Committee deliberated on the proposal and observed that the proponent has made proposal for enhancement of production from 15,000 TPA to 2,00,000 TPA of Soapstone whereas in the Mining plan the total excavation is shown to the tune of 9,40,000 m³ (approx.). The PP reported that Schist rocks which were earlier identified as waste/overburden are now saleable in the market and hence, the capacity expansion has been sought with a view to sell the same. It was further reported that the waste to be generated from mining operations may also have Quartzite and Dolomite which are also saleable in the market. The Committee asked the PP that Mining plan has shown excavation at the end of 5th year as 9,40,000 m³ (approx.) which seems to correspond to fresh production whereas earlier it was told that Schist rocks which were identified as waste/ overburden are now saleable in the market and accordingly, capacity expansion has been sought. Hence, there is contradiction in the explanation placed by the PP. The Committee also asked the PP to seek EC clearance based on ROM/ total excavation as against the current proposal of Soapstone only.

The Committee suggested that EC may be obtained for all the minerals which are intended to be produced so as to avoid violation at a later stage. The PP agreed to the suggestion of the Committee and accordingly, the proposal is

deferred till the following information is submitted by the PP; (i) Modified proposal indicating total excavation/ ROM and all minerals intended to be sold (ii) Past production details duly authenticated by Department of Mines and Geology (iii) Time bound action plan on green belt development /plantation.

In this regard, the PP has submitted the following:

- (i). The Modified Scheme of mining with PMCP was approved by S.M.E., DMG, Udaipur vide letter no. SME/Udr-Cir./Mine-Plan/Scheme/Udaipur/P-20/17/425, dt. 03.11.2017. As per modified plan total mineable reserves is 6115807 tonnes; life of mine is 30.57 years. PP mentioned that the modified scheme of mining was prepared because Talc chlorite schist (khareda) which was earlier identified as waste/overburden in previous mining scheme is now found saleable as Block able schist & Quartzite and further the waste to be generated from mining operation may also have Quartzite and schist which are also saleable in market. **The Committee noted that TOR/PH is only for Soapstone mineral, however now PP want to add more mineral. At the instance the EAC may consider the proposal of Soapstone only. For other mineral PP needs to submit the proposal afresh.**
- (ii). Govt. of Rajasthan, vide letter dated 29.01.2018, has provided the production details since 1977-78 to 2016-17. The production capacity was 2564 Tonnes in year 1993-94. The lease was originally granted for a period of 20 years on 31.12.1970. The mining lease was renewed for a period of 10 years from 31.12.1990 to 30.12.2000. The 2nd renewal of mining lease was sanctioned on 10.10.2001 for area of 83.491 Ha for period of 31.12.2000 to 20.09.2019 and the same was extended till 31.03.2030 as per the MMDR (Amendment) Ordinance, 2015. **In view of the production figure PP has enhanced the production capacity after 1993-94 and has taken EC only on 21.02.2007 for mining @ 15,000 TPA of soapstone which seems it is a violation case. PP has not increased the production capacity after grant of EC. The Ministry to examine the issues of violation as per Hon'ble Supreme Court Judgement dated 02.08.2017.**
- (iii). Time bound action plan on green belt development / plantation was inadequate; The Committee was satisfied. PP needs to submit the detailed Green Belt Development plan on periphery of the lease along with type of plantation etc.

Based on the information submitted by PP the Committee **deferred** the proposal and may consider after action on above mentioned paras (i) to (iii).

(2.18). Ball Clay, Red and Yellow Ochre Mine from 13,587TPA (RoM) to 1,00,000 TPA by M/s Sharda Sales Corporation, Bikaner, located near village Jaising deasr, Tehsil-Nokha, District-Bikaner, Rajasthan (129.5ha.) (Consultant: Apex Mintech Consultants,

**Udaipur, Rajasthan) (File No. J-11015/219/2015-IA-II (M)
Proposal No. IA/RJ/MIN/63233/2015 -Re-Consideration of
Environment Clearance**

The proposal of M/s Sharda Sales Corporation is for enhancement of production capacity from 13,587 TPA to 1,00,000 TPA (ROM) of Jai Singhdesar Ball Clay, Red & Yellow Ochre Mine in 129.5 Ha M.L. area. The mine is located at village Jai Singhdesar, Tehsil Nokha, District Bikaner, Rajasthan. The mining lease area falls between the latitudes of 27°41'26.22"N to 27°42'25.83"N and longitudes of 73°8'38.2"E to 73°9'8.45"E on the Survey of India Toposheet No. 45 E/2.

The Proposal of EC was earlier placed before the EAC in its meeting held during May 29-30, 2017 wherein the Committee deferred the proposal and asked the PP to amicably address the issues raised during public hearing. The PP was also asked to submit authenticated past production details from State Govt., Revised plantation programme and seek details on mining outside mining lease area from State Department of Mines and Geology.

Based on the information provided by the PP, the proposal was reconsidered by the EAC in its meeting held during September 19-20, 2017 wherein the Committee noted that the Supreme Court has now come up with a judgement in the matter of Common Cause Vs Union of India wherein expression of expansion has been interpreted. Hence, Ministry may further examine the matter. The Committee also took note of the submission of PP w.r.t. mining work inside & outside the lease area and corroborated the same with past production details as the mine is non-operational since 01.01.2013. The documents given in support of dubious/ criminal background of the persons participating in PH have been noted by the Committee and additionally, the PP gave an undertaking that issues raised in PH shall be settled amicably. The Committee noted that the PH was presided over by the Additional District Collector (Administration), Bikaner and in presence of Regional Officer, Rajasthan State Pollution Control Board and accordingly, PP is required to bring the facts to the knowledge of the said authorities and submit a factual report from the Collectorate. In view of the above observations, the Committee **deferred the proposal** and asked PP to submit a factual report from Collector Office, Bikaner on the issues raised in PH and clarification provided by it. The Committee further noted that the Ministry may also examine the applicability of Supreme Court judgment in the matter of Common Cause Vs Union of India on the proposal.

In this context, the Collector Office, Bikaner vide letter dated 02.01.2018 has forwarded the report of SPCB and the Committee deliberated the findings of the report. Based on the deliberation the Committee **deferred** the proposal and suggested that the proposal may only be considered after following actions:

- (i). The Committee noted that DSR has made only for Ball Clay mineral. However PP's proposal is for Ball Clay, Red and Yellow Ochre. In this regard as per the provisions of the EIA Notification, 2006 amended on 15.01.2016, DSR is required for mineral wise.

- (ii). The mining lease was granted in 1985 and lease period was valid from 11.10.1985 to 10.10.2005. However, the PP has enhanced the production from 2008 to 2012 without EC **hence it is a violation case**. Further, the mining lease period was extended by a period of 4 years 5 months 24 days with effect from 28.07.2008. Now according to Sec 8A (6) of the Mines and Minerals (D&R) Amendment Ordinance, 2015 the lease period is valid till 21.01.2043.

The Mining Engineer, Department of Mines and Geology, Bikaner, Rajasthan vide letter dated 15.01.2018 mentioned that there are no dues or demands for illegal/excess mining are pending. PP informed the Committee that they had never taken EC neither EIA Notification, 1994 nor EIA Notification, 2006 and mine is operating since 1991. **In view of above, EAC noted that this is a case of violation as PP had not taken EC under the provisions of the EIA Notification 1994/2006 and the instant proposal may be appraised as per the provisions of the violation Notification issued by the MoEF&CC vide S.O. 804 (E) dated 14th March 2017.**

(2.19). Enhancement of production from 3.17 Million TPA to 5.50 Million TPA (ROM) in respect of Limestone mines of M/s Emami Cement Limited in M.L. Area of 395.05 Ha located at Villages - Kukurdih & Risda, Tehsil - Balodabazar, District - Balodabazar-Bhatapara, Chhattisgarh Consultant: J. M EnviroNetPvt. Ltd.) [File No. J-11015/135/2015-IA.II (M); Proposal No. (IA/CG/MIN/27402/2015) –Re-consideration of EC

The proposal of M/s Emami Cement Limited is for enhancement of production capacity from 3.17 Million TPA to 5.50 Million TPA from limestone mine in 395.05 Ha M.L. Area. The mine located at Villages - Kukurdih & Risda, Tehsil - Balodabazar, District - Balodabazar - Bhatapara, Chhattisgarh. The mining lease area falls between 21°38'0.072"N to 21°39'48.105"N latitudes and 82°06'12.855"E to 82°07'30.230"E longitudes and on the Survey of India topo-sheet No. 64 K/2. The PP also presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

The proposal of EC was earlier considered in EAC meeting held during August 29-30, 2017 wherein the Committee deferred the proposal for want of requisite information. In this context, the PP had submitted reply vide its letter dated 29.09.2017 and 31.10.2017 and accordingly the proposal was re-considered by the EAC in its meeting held during November 27-28, 2017 wherein the Committee deliberated on the proposal and observed that the earlier EC was granted for integrated cement plant whereas the instant proposal is an expansion of mine component only. The PP has also presented the compliance of EC conditions on the basis of integrated plant only covering budgetary aspects. Hence, it would be appropriate if the status of compliance of partially complied/ non-complied

conditions, as noted by MoEFCC RO, is cross checked by MoEFCC R.O. Nagpur and comments on status of compliance of EC conditions are furnished. Accordingly, the proposal was deferred for want of report/ comments from MoEFCC R.O. Nagpur.

In this context, the Regional Officer, MoEFCC, Nagpur has visited the mine again on 05.02.2018 and submitted the status of compliance of EC conditions vide R.O. MoEFCC, Nagpur letter dated 10.02.2018. Accordingly the project is placed in this meeting.

The Regional Officer, MoEFCC, Nagpur vide in its report dated 10.02.2018 mentioned following compliances viz. (1) Construction of drains along the haul roads has been done and soil bunds along the haul road have been planted with trees. (2) Details of monitoring reports on the ground water level and quality have been made available. 6 piezometers have been installed by ECL for the same. (3) Interburden and other waste is stacked at designated sites, the bench formation is still under progress. (4) Details regarding modification of the Mining Plan was made available during inspection. (5) Plantation has been undertaken along the haul roads and over the bunds created along the lease boundary. Nearly 3000 trees were planted during the last monsoon period. (6) An expense of Rs. 55.30 crores has been incurred towards ESC in the field of health, education, sanitation and infrastructure development and detailed year wise action plan was made available. (7) Corporate Environment Policy was made available along with the organizational chart. (8) An amount of Rs. 3.30 crores has been incurred by ECL on eco development activities during last five years & current financial year and during the next 10 years, ECL has made budgetary provisions of Rs. 13.40 crores to undertake eco- development activities in the area. (9) Environmental Cell with fully equipped laboratory has been setup by ECL. Organizational Chart was made available during inspection. (10) Details regarding Capital and recurring expenditure incurred on the environmental safeguards were made available during inspection. ECL has incurred an amount of Rs. 64.95 crores as capital cost in compliance conditions. Further, an amount of Rs. 7.23 crores has been incurred by ECL as recurring cost on the environment protection measures. (11) With regards to the soil conservation measures, measures like construction of garland drains around the top soil bund, toe wall around the OB dumps, check dams etc. have been undertaken by ECL. Comprehensive Soil Conservation Plan is being prepared for the entire lease area and the same will be implemented in due course.

The Committee deliberated the proposal and based on the information submitted by PP, the Committee **recommended** the Proposal for grant of Environmental Clearance for Enhancement of Limestone mine with production capacity from 3.17 Million TPA to 5.50 Million TPA (ROM) **subject to examination of proposal under Hon'ble Supreme Court judgment dated 02.08.2017.**

The Committee also **recommended additional specific conditions** viz. (i) 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; (ii) 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; (iii) Project Proponent reported that there are 2 seasonal nallahs within the lease area for which a safety zone of 50 meters has been left on either side of the nallah as a statutory barrier. The nallah will not be disturbed at any stage of mining. It was further noted by the Committee through KML file that an earthen bund of Kukurdih dam is near to the mine lease boundary and PP has reportedly left a safety barrier zone along the Kukurdih dam; (iv) 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 (v) 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 Rajasthan 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.

(2.20). Proposed Kesla-II Limestone Mine (Area 357.067 ha) of M/s Dalmia Cement Bharat Ltd. with production capacity of 4.0 Million TPA (ROM) with crusher capacity of 1000 TPH, located in villages Nahardih, Kharora, Kesla and Bardih, Tehsil Tilda, District Raipur, Chhattisgarh (ML Area 357.067 ha) [(Proposal No. IA/CG/MIN/72578/2018; File No. J-11015/13/2018-IA.II(M)] - Consideration of TOR

The proposal of M/s Dalmia Cement Bharat Ltd is for production capacity of 4.0 Million TPA (ROM) with crusher capacity of 1000 TPH in the MLA of 357.067 ha. The mine lease is located in villages Nahardih, Kharora, Kesla and Bardih, Tehsil Tilda, District Raipur, Chhattisgarh. The mining lease area falls in Survey of India

Topo sheet no. the Latitudes and Longitudes of mine lease area is 21°24'47.752" to 21°26'09.246" and 81°55'45.216" to 81°56'54.195".

The total mining lease area is 357.067 ha comprises of 42.424 ha Govt. land & 314.643 ha Private land. The Government of Chhattisgarh has issued Letter of Intent (LOI), vide letter no. F 3-21/2016/12, dated 22.06.2017 under Rule 10(2) of the Mineral (Auction) Rules, 2015 for grant of Mining Lease for the e-auctioned block in Raipur district.

The method of mining will be Opencast fully mechanized which inter-alia includes drilling, blasting, loading, crushing & transportation to proposed interlinked cement plant. Impact crusher of 1000 TPH capacity is proposed to be installed within the lease area. The limestone will be stacked near the crusher and fed to crusher with suitable blending with sub-grade limestone as per requirement in the cement plant. PP reported that based on the present exploration, at the conceptual stage, out of the total ML area about 121 ha area will be excavated out of which about 30 ha area will be backfilled and about 91 ha area will be converted into water reservoir with proper fencing. Greenbelt area shall be developed in 7.5 m safety barrier all around the MLA. There is no National Park, Wildlife Sanctuary Eco-Sensitive Zone or Reserved Forest within 10 km radius from the proposed mine. However, there are two protected forests namely Khaulidabri PF about 0.25 km towards W and Mohrenga PF about 5.7 km towards NW. The nearest town Kharora (NP) is about 1 km, SW and Tehsil Town Tilda is about 18 km, NW. Nearest Airport is at Raipur about 32 km, SW. Nearest Highway is State Highway-9 about 2.8 km SE.

The Government of Chhattisgarh has issued Letter of Intent (LOI), vide letter no. F 3-21/2016/12, dated 22.06.2017 with certain conditions. One of the conditions is to take approval of mine plan within six months time. **PP informed that they had submitted the draft mine plan. However the same was rejected by the IBM. In view of the above, the Committee wants to know the basis of rejection of mine plan.** The Committee observed that there are PAF in the mine lease area; a detailed R&R plan needs to be prepared.

In view of the above, the Committee deliberated the proposal and **deferred** and may consider further for submission of above mentioned details.

(2.21). Tikarapara Pyrophyllite & Quartzite Mine with enhancement of production capacity of Pyrophyllite from 6500 TPA to 30,624 TPA (ROM) and Quartzite 4000 TPA to 69,163 (ROM) by M/s Banwarilall Newatia, located at Village- Tikarapara, District – Keonjhar, Odisha (MLA 67.1390 Ha) (Consultant: Overseas Min-Tech Consultants Pvt. Ltd., Jaipur) (File No. J-11015/354/2008-IA.II(M); IA/OR/MIN/70677/2017-Consideration of TOR

The proposal of M/s Banwarilall Newatia is for enhancement of production capacity of Pyrophyllite from 6500 TPA to 30,624 TPA (ROM) and Quartzite 4000 TPA to 69,163 (ROM) in the mine lease area of 67.1390 Ha. The mine lease area is located in villages Tikarapara, District – Keonjhar, Odisha. The mine lease falls in

Survey of India Topo sheet no73 G/10. The Latitudes and Longitudes of mine lease area is 21°39'49.00" to 21°40'27.00"N and 85°32'00" to 85°32'40.00"E.

PP reported that the Ministry, vide letter No. J-11015/354/2008-IA.II (M), dated 28.06.2013 has granted Environmental Clearance for Tikarpara Pyrophyllite and Quartzite Mines with production capacity of 6500 TPA of Pyrophyllite and 4000 TPA of Quartzite after completion of actions on violation prevailing at that time. After grant of EC in 2013, PP has not increased the production capacity.

The lease area comprises of Pahar and Parbat – II Kissam of land. The mining lease area of 67.1390 ha which is a Govt. waste land. The Lease deed over an area of 112.4876 ha in respect of Tikarapara Pyrophyllite & Quartzite mines was executed on dated 07.11.1998 for 20 years. The original lease for an area of 112.4876 ha which included 45.3486 ha of DLC forestland. The proponent has surrendered the forest land and retained 67.139 ha of non-forestland. Thus the present proposal is only for the retained area of 67.139 ha.

The Mining Plan with PMCP has been approved by Directorate of Mines Odisha, Bhubaneshwar vide letter No. MXXII-(b)-4/2017 2707 DM, dated 30.03.2017. Mining is being carried out by opencast fully mechanized method along with drilling and blasting. Blasting is required only for removing OB, waste rock and mineral. The controlled blasting technique is to be adopted, so that it does not damage the mineral. Wet drilling is to be done in hand hold jack hammer with the help of tractor mounted Air compressor. The mineable reserves are estimated to be 26, 81,534 MT & 35, 43,267 MT for Pyrophyllite & Quartzite Mineral. The expected life of mine is 89 year @ 30,624 TPA Pyrophyllite & 69,163 TPA Quartzite production. Total water requirement will be 7.0 KLD which will be met through from nearby village & rain harvested water stored in tank after and during monsoon. No National Park, Wild Life Sanctuaries, Tiger Reserves, Biosphere Reserve, Wildlife Corridor, etc. are located within 10 km radius of MLA.

Based on the information submitted and presentation made by PP, the proposal was **recommended for TOR** with a specific condition that 'PP needs to be submit DSR which is required for minor mineral as per the provisions of the EIA Notification 2006 amended on 15.01.2016' **subject to examination of proposal under Hon'ble Supreme Court judgment dated 02.08.2017.**

(2.22). Expansion of Balaji Iron Ore Mine from 74,000 TPA to 3 Lakh TPA (ROM) by M/s Anil Khirwa, located at Village Balijore, Noamundi Distt. Singhbhum (W), Jharkhand (MLA: 19.331Ha) (Consultant: Perfact EnviroSolutions Pvt. Ltd.) [File No. J-11015/142/2007-IA.II(M); Proposal no. IA/JH/MIN/64012/2017]- Re-Consideration of TOR

The proposal of M/s Anil Khirwa is for expansion of Balaji Iron Ore Mine from 74,000 TPA to 3 Lakh TPA (ROM). The mine lease area is of 19.331 ha. It is a category A Project as the mine lease area is located within 5km of interstate boundary of Odisha and Jharkhand. The mine lease is located at Khata no. 1, Plot Nos. 76, 77 and 93, Village Balijore, Tehsil Noamundi, District Singhbhum (W),

Jharkhand. The latitude is 22°09'19.145" N-" 22° 9' 42.756" N and longitude 85° 29' 2.273" E-80° 29' 26.624" E. The area falls in the Survey of India Topo-sheet no. 73F/8(OSM no. F 45 H/8) & 73F/12(OSM no.F 45 H/12).

The Proposal of TOR was earlier considered by the EAC in its meeting held during August 29-30, 2017 wherein the Committee observed that the PP has not given authenticated past production details to ascertain violation; hence, the same may be submitted. Also, as per PP's submissions, the lease area falls in core zone of Singhbhum Elephant Reserve; however, NBWL clearance is not applicable. The Committee suggested that Ministry may seek clarification in this regard from Wildlife Division/ Project Elephant Scheme. In view of the above, the **proposal was deferred**.

PP reported that the MoEF has granted the Environmental Clearance vide letter no. J-11015/142/2007-IA.II(M), dated 13th April, 2011 & 15.03.2013 for production at 74000 TPA (ROM) of Iron ore.

PP submitted the production details from 1988 to 2017 which was authenticated by DMO, Chaibasa vide letter dated 01.02.2018. It is noted that PP has not enhanced the production capacity after grant of EC dated 13th April, 2011. However, PP has increased the production capacity of base year 1993-94. Accordingly, PP had deposited an amount of Rs.2,08,39,666/-(Rupees Two Crores Eight Lakh Thirty nine thousand Six hundred and Sixty six) on 29.12.2017, as per demand raised by DMO Chaibasa for exceeding production in one year 2004-05. In this regard, NOC from DMO, Chaibasa, vide letter dated 16.01.2018, has been submitted w.r.t. penalty submission under Hon'ble Supreme Court order dated 02.08.2017 along with NOC from the State Govt. stating that all dues have been paid and no dues are pending against the PP in pursuance of Hon'ble Supreme Court judgment dated 02.08.2017.

Based on the information submitted and presentation made by PP, the proposal was **recommended for TOR subject to examination of proposal under Hon'ble Supreme Court judgment dated 02.08.2017 and NBWL issues**.

(2.23). Amendment in EC dated 13th May, 2009 of M/s J K Lakshmi Cement Ltd. w.r.t. reduction of mining lease area from 281.339 ha to 252.105 ha and interception of ground water table during mining located, loacted at Malphuri Khurd, Khasdaih, Semaria, Ghikudia, Nandini Khundani Tehsil Dhamdha District Durg Chhattishgarh (Proposal No. IA/CG/MIN/71245/2009-Amendment in EC

The proposal of M/s JK Lakshmi Cement Ltd. is for Amendment in EC No. J-11011/1170/2007-IA II(I), dated 13th May, 2009 w.r.t. reduction in mine lease area from 281.339ha to 252.105ha and interception of ground water table during mining. The mine lease area is located at Malphuri Khurd, Khasdaih, Semaria, Ghikudia, Nandini Khundani Tehsil Dhamdha District-Durg, Chhattisgarh.

The Environmental Clearance was granted by the Ministry's vide letter no. J-11011/1170/2007-IA II(I), dated 13th May, 2009 for Integrated Cement Plant (Clinker, 3.0 MTPA, Cement 10.0MTPA), Limestone mine (4.8 MTPA, 267.695 ha and 281.339 ha) and captive power Plant (40MW) at village Semaria, Ghikuria and Nandani Kundani, Tehsil-Dhamda, District-Durg, Chhattisgarh.

PP reported that due to local problem and issues associated with Nala and Road as well Charagah land acquisition 29.234ha falling in second Limestone mine (lease area 281.339ha), the said mine lease area has been reduced from 281.339ha to 252.105ha by the Chhattisgarh State Govt.. The Department of Mines and Geology, Government of Chhattisgarh, vide letter dated 12.08.2016, has issued the LOI for reduction of MLA from 281.339ha to 252.105ha and mentioned that PP needs to submit the approved mining plan with reduced area of 252.105ha. In this context, IBM, vide letter dated 23.09.2016, has approved the Mining plan with Progressive Mine closure Plan for the reduced area of 252.105ha. The Committee deliberated the proposal for reduction of MLA and recommended the same.

PP also requested to amend the para 5 of EC dated 13th May, 2009 and specific condition no. (x) w.r.t. interception of ground water table during mining and mentioned that "Mining shall not intercept the ground water table". PP has submitted that the Central Ground Water Authority, vide letter no 214(34)/NCCR/CGWA/2012-2036, dated 26.09.2016, has issued the renewal of NOC for ground water withdrawal to abstract 320 m³/day. The NOC clearly specify provision of 1860 m³/day dewatering the mine seepage on account of mining interception the water table during the mining operation. The Mining Plan has also provisions for mining of limestone below ground water table and necessary precautionary measures as per Approved mining plan from IBM Nagpur dated 23.01.2015 and dated 23.09.2016. PP reported that this dewatered seepage water will be utilized to meet the cement plant water requirement which is presently sourced from Shivrath river thus saving water in river for distribution to others.

The Committee deliberated the information submitted by PP and **recommended** the proposal for amendments in EC J-11011/1170/2007-IA(I) dated 13th May, 2009 **w.r.t. (i) Reduction of mine lease area from 281.339ha to 252.105 ha; and (ii) Permission for interception of ground water table during mining operation and accordingly**, para 5 of EC dated 13th May, 2009 and specific condition no. (x) w.r.t. sentence "Mining shall not intercept the ground water table" may be amended to "Mining shall intercept the ground water table". Further, the Project Proponent shall comply the following additional conditions:-

- (i) 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.

- (ii) 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.
- (iii) 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 Rajasthan State Pollution Control Board.
- (iv) 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.

(2.24). Amendment of EC No. J-11015/685/2007-IA II(M), dated 29th December, 2010 w.r.t. reduction of mine lease area from 478.30 ha to 157.9234ha of Sand Stone Mining Project of M/s Tiwari Jhoomarlal Swarooplal, located at Villages- Mamchari & Mahu, Tehsil & District – Karauli, Rajasthan (Consultant: Ramji Mine Envirotech) (File No. J-11015/685/2007-IA.II(M); Propsoal No. IA/RJ/MIN/65774/2010 - Amendment in EC

The proposal of M/s Tiwari Jhoomarlal Swarooplal is for Amendment in EC No. J-11015/685/2007-IA II(M), dated 29th December, 2010 w.r.t. reduction of mine lease area from 478.30 ha to 157.9234 ha. The mine lease area is located at Villages- Mamchari & Mahu, Tehsil & District- Karauli, Rajasthan.

PP reported that the Ministry has earlier granted EC vide No. J-11015/685/2007-IA II(M), dated 29th December, 2010 for mining of sandstone @ 0.5 million tonnes of Slate Stone (Minor Mineral) in the MLA of 478.30 ha.

The Committee noted that the PP has not submitted the complete details of the proposal and **deferred** the proposal as there are many discrepancies in the proposal viz. (Mine Plan mentioned the MLA of 111.566ha; However the DMG vide letter dated 27.07.2016 mentioned that MLA is 157.9234 ha i.e. documents having some problem; (ii) DMG, Govt. of Rajasthan, vide letter dated 22.03.2017, mentioned that the lease is valid up to 31.03.2015; however the mine lease area details in the letter is not mentioned; (iii) The PP is required to provide information with respect to authenticated past production details along with the details of 'Consent to Operate' obtained from SPCB since inception of Mine; (iv) PP has not submitted the details of compliance of earlier EC condition; (v) As per EC Kela Devi Sanctuary was reported with distance of 8 km; however the NBWL clearance details are not provided by the PP.

(2.25). Amendment in EC No. J-11015/120/2006-IA.II (M), dated 16.04.2007 of M/s Century Cement (MLA: 74.843 ha), located at Villages Bahesar & Tulsi, Tehsil: Tilda, District: Raipur, Chhattisgarh (Consultant: J. M EnviroNetPvt. Ltd.) (Proposal No. IA/CG/MIN/19471/2007) - Amendment in EC

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.

PP has reported that they have an existing cement Plant established in year 1974 at Village: Baikunth, District: Raipur, Chhattisgarh for which Environmental clearance was granted by MoEF, vide letter no. J-11011/404/2007-IA.II (I) dated 28.09.2007. Present limestone requirement is fulfilled through company's two captive mines i.e., ML Area: 74.843 ha with production capacity 12.0 Lakh TPA at villages Bahesar & Tulsi, Tehsil - Tilda, District- Raipur, Chhattisgarh (with capping of 18.0 Lakh TPA from both the leases taken together) and ML Area: 237.003 ha with production capacity 18.0 Lakh TPA at villages Bahesar & Tandwa, Tehsil - Tilda, District- Raipur, Chhattisgarh. Both Leases are contiguous.

MLA 237.003 ha: PP has submitted the following details w.r.t. MLA of 237.003 ha which is as below:

- (i). As per EIA Notification-1994, M/s Century Textiles and Industries Ltd (Unit: Century Cement) submitted an application (Schedule-II & Questionnaire) for Environmental Clearance with production capacity 15 lakh TPA mentioned on page no. Q-6 of Questionnaire.
- (ii). EIA/EMP report was prepared & submitted to SPCB for Public Hearing conduction, impact assessment was done for production capacity 15 lakh TPA mentioned on page no. 5-1 of EIA/EMP report.
- (iii). Based on the EIA report submitted, the Public Hearing was conducted for the project on 17.10.2005 at Village- Kundru, District-Raipur.
- (iv). Modification of Mining Plan with progressive mine closure plan was prepared and submitted to IBM for approval {copy of approval letter is enclosed as Annexure-VI (A)} with production capacity 15 lakh TPA mentioned on page no 13.
- (v). Accordingly the Environmental Clearance for ML Area 237.003 ha for Limestone production capacity of 1.8 Million TPA was obtained from MOEF vide letter no. 11015/121/2006-IA.II (M) dated 06.09.2007.

ML A 74.843 ha: PP has submitted the following details w.r.t. MLA of 74.843 ha as below:

- (i). As per EIA Notification-1994, M/s Century Textiles and Industries Ltd (Unit: Century Cement) submitted an application (Schedule-II & Questionnaire) for

Environmental Clearance with production capacity 12 lakh TPA mentioned on page no. Q-6 of Questionnaire.

- (ii). EIA/EMP report was prepared & submitted to CECB for Public Hearing conduction, impact assessment was done for production capacity 12 lakh TPA mentioned on page no. 5-1 of EIA/EMP report.
- (iii). Based on the EIA report submitted, the Public Hearing was conducted for the project on 17.10.2005 at Village- Kundru, District-Raipur.
- (iv). Modification of Mining Plan with progressive mine closure plan was prepared and submitted to IBM for approval with production capacity 12 lakh TPA mentioned on page no 15.
- (v). The Environment Clearance for ML Area 74.843 ha with production capacity 1.2 Million TPA and EC was obtained from MOEF, 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."**

PP also mentioned that since the company is purchasing high grade limestone from outside, which is not sufficiently available at present. Company is in the process of increase the production of clinker & cement by adopting technological improvements & process developments in the existing Cement Plant. After the said upgradation in the cement plant, Century Cement will be able to consume low grade limestone (CaCO_3 - 72.5 % instead of CaCO_3 - 74%) from their adjacent mine. Therefore, 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". From the above subject matter, it is evident that the proposal for earlier EC of ML Area: 74.843 ha was for 12 Lakh MTPA. Therefore, M/s Century Textiles and Industries Ltd. has applied for amendment in Existing EC letter as expansion for the same capacity could not be applied.

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.

(2.26). J-11015/83/2004-IA.II(M): Amendment in Environment Clearance for Nimbahera-Ahirpura Limestone Mining Project Area 403.1875 ha) having production capacity of 2.0MMTPA of M/s J.k.

Cement Works situated at Village - Nimbahera, Ahirpura Tehsil - Nimbahera, District - Chittorgarh, Rajasthan. [Proposal no. IA/RJ/MIN/11656/2004; File No. J-11015/83/2004-IA.II(M): - Amendment in EC

The proposal was inadvertently placed in the meeting.

(2.27) J-11015/157/2016-IA-II(M): Mangampet Barytes Extension Project (Project area – 221.89 Ha) of M/S. APMDC Ltd for a peak production capacity of 0.162 MTPA of Dolomite and 0.969 MTPA of black shale located in Mangampeta & Govindampalli Villages of Obulavaripalli Mandal and Anantarajupeta Village of Koduru Mandal, YSR Kadapa District, Andhra Pradesh.-Environment Clearance

Online Reference: **IA/AP/MIN/53361/2016**

The proposal reference no **IA/AP/MIN/53361/2016** was received in the Ministry online on 09.01.2018 thereby by submitting the EIA/EMP Report for grant of Environmental Clearance.

2. The proposal is for Mangampet Barytes Extension Project (Project area – 221.89 Ha) of M/S. Andhra Pradesh Mineral Development Corporation (APMDC) Ltd, for the total project area of 221.89 Ha comprising of 114.14 Ha of lease area and 107.75 Ha outside the lease area mainly for dumping of waste and its safety zone towards a peak production capacity of 0.162 MTPA of Dolomite and 0.969 MTPA of Black Shale. The mining lease area is bounded by Latitude N 14° 00' 32.41" to 14° 00' 13.30" and longitude E 79° 18' 28.97" to E 79° 19' 54.13". As per the KML file submitted by the Project Proponent the mining lease is in two parts and between these two parts there is a Mangampet Barytes mining lease which is being operated by ADMDC since 1975.

3. The Project Proponent submitted that the mining lease granted over an area of 114.14 Ha for a period of 20 years from the date of lease execution and letter of Grant of mining lease issued by Industries & Commerce (Mines III) Dept. of Govt of Andhra Pradesh vide LR. No. 5635/M.III (2)/2015 dated 18.05.2015. The Proponent also submitted the extension of validity of the letter of intent issued by the Department of Mines & Geology, Government of Andhra Pradesh vide LR. 52044/R5-2/2012 dated 1.01.2018.

4. The proponent submitted that entire lease area of 114.14 Ha is Government Land. However, dumping will be carried out outside the lease over an area of 107.75 Ha. The Thasildar, Obulavaripalli has already issued NOC for dumping of waste material outside the lease area. The proponent submitted LR No 482/2017/WL-1(ii) dated 10.10.2017 & LR No 1170/2016/M1 dated 20.09.2017 issued by Forest Department, Govt. of Andhra Pradesh stating that the project area does not involve any forest land. The proponent also submitted LR No 482/2017/WL-1 dated 12.09.2017 along with authenticated map showing the

distance of mining lease from protected areas, as per which the mining lease is more than 10 Km from any protected area.

5. The proponent submitted that the Simultaneous working of this new lease along with the existing Barytes lease is planned to enable advancement of mining operations in the Barytes lease in the lower horizon and to enhance the production also. Hence it is termed as Extension project. Proponent submitted that the mining plan is approved vide LR No 845/MP/KDP/2016 dated 25.05.2016. The mining plan is approved only for 114.14 Ha area. The mining plan is designed to suit the excavation line of the existing Barytes Mines at Mangampet. The method of mining will be an open-cast fully mechanized method of mining with deep hole drilling & blasting and using heavy earth moving machineries for excavation, loading and transportation.

6. The proponent submitted that about 16.817 million cubic meters of waste and 0.04 million cubic meters of topsoil will generated during the present plan period. Besides this 2.47 million cubic meters of waste in Dump-3 on the Northern side of the lease area will be re-handled for advancing the mining benches. Further, no waste is likely to be generated during the conceptual period. The waste will be dumped over the existing Dump- 4 & 5 which on the northern & southern side of the lease area over an extent of 76.6738 Ha both inside the lease area (27.5130 Ha) and outside the lease area (49.1608Ha). Top soil will be used for afforestation purposes. The generation of sub-grade mineral is not anticipated from the lease area. The proponent submitted that no liquid waste will be generated.

7. The proponent submitted that the baseline data on micro-meteorology, ambient air quality, water quality, noise quality, soil and flora & fauna are collected during summer season (March-May 2016). The existing air quality levels for PM₁₀, PM_{2.5}, SO₂ and NO₂ are well within the NAAQ standards. The proponent submitted that after considering the incremental concentration of various pollutants the post project concentration is also well within the NAAQ standards. The proponent submitted that the water requirement for the project will be 280 KLD and the same will be sourced from existing Barytes mine, but the drinking water requirement will sourced from bore wells within the project area. The proponent submitted that mining activities will not intersect the ground water table.

8. The Proponent submitted that Term of Reference was issued vide letter No J-11015/157/2016-IA-II (M) dated 10.06.2016. The mining plan was approved vide LR No 845/MP/KDP/2016 dated 25.05.2016. The advertisement for public hearing was published in the Indian Express and Sakshi newspapers on 02.04.2017. The public hearing was conducted on 04.05.2017 near APMDC office, Mangampeta village, Obulavaripalli Mandal, YSR District. The public hearing was chaired by Joint Collector –YSR District. The main issues raised during public hearing are pertaining to proper compensation for land acquisition, implementation of R&R plan, implementation of pollution control measure, the development of green belt, health hazard due to the operation of the mills, effects on the productivity of the crops,

management of domestic effluent, depletion of water level, employment, health facilities, education facilities etc.

9. The proponent submitted that the capital cost for implementation of Environmental Management Plan will be ₹ 453 Lakh and recurring cost will be ₹ 740.35 Lakh. The amount proposed for Enterprise Social Commitment (ESC) will be ₹ 534.90 Lakh.

10. The proponent submitted the LR No 482/2017WL-1 dated 09.11.2017 issued by Forest Department, Government of Andhra Pradesh wherein it has mentioned that there are five schedule-1 species (*Four Horned antelope, Indian Elephant, Leopard, Sloth Bear and Pythons*) are present in buffer zone. The proponent submitted that ₹ 175 Lakh is earmarked for implementation of the wildlife conservation plan.

11. The proposal was placed for consideration in the EAC in its meeting held on 26-27 February, 2018. The Committee inter-alia observed that in the instant proposal the project proponent is planning to join the existing Barytes mine with new mine Dolomite & Black Shale Mine. The dumping of the waste is also proposed outside the mining lease area. The shifting of existing dump is also proposed. The mining plan is only approved for 114.14 Ha mining lease area but the area proposed for the project is 221.89 Ha. The Committee member informed the chairman that as per rule 56 of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016 "The State Government may, in the interest of mineral development and with reasons to be recorded in writing, permit amalgamation of two or more adjoining leases held by a lessee, provided that the period of amalgamated leases shall be co-terminus with the lease whose period will expire first." Further as per rule 57 of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016 "Extent of area granted under a mineral concession shall also include non-mineralized area required for all the activities falling under the definition of 'mine' as defined in clause (j) of sub-section (1) of section 2 of the Mines Act, 1952 (35 of 1952)." The committee also noted that as per the rule 111 of Metalliferous Mine Regulations (MMR), 1961, no working shall be made within a distance of 7.5 meter of the boundary of any mine and permission of Director General of Mine Safety (DGMS) is required for reducing this distance.

12. In the instant case the proponent wants to extract the mineral lying in the bottom of the existing Barytes mining pit, to do so proponent requires to shift the upper benches even beyond the mining lease boundary towards the new mining lease. Due to this, there is a requirement of reducing the distance between the two mining leases. The Committee noted that it's not merely reducing the distance between the two leases, but it is joining of two separate mining leases into one single mining lease and thus require amalgamation of mining leases as per rule 56 of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016. In addition to this, proponent also proposed dumping of mining waste on the dump yards located outside the mining lease area. The dumping of mining waste is also a mining activity and should be done within the mining lease area.

Further, as per section 4(1) of Mines and Minerals (Development and Regulation) Act, 1957 "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.**" In the instant case proponent proposed to dump the waste in the dump yards located outside the mining lease. The dumping of waste is also a mining operation, but as per aforementioned section 4(1), the mining operation should be carried out within mining lease and also in accordance with condition of the mining lease. The Committee thus did not agree with the proposal of proponent for dumping of the mining waste outside the mining lease area and suggested that proponent should include this area into the mining lease.

13. The committee was of view that as the ToR was issued for 221.89 Ha, also the dumping of waste outside mining lease was proposed in approved mining plan which was placed during public hearing thus the public hearing is not required again, however as the mining plan submitted by PP is approved for 114.Ha a revised mining plan approved for 221.89 Ha needs to be submitted and EIA/EMP report needs to be revised accordingly.

14. Based on the discussion held, presentation made and document submitted by proponent the Committee **deferred** the proposal due to aforementioned reasons and was of view that proposal may only be considered after submission of the following information:

- a) The mining lease deed/LoI for 221.89 Ha
- b) Approved mining plan for 221.89 Ha needs to be submitted and EIA/EMP report needs to be revised accordingly.
- c) Proof of submission of wildlife conservation plan needs to be submitted.
- d) The activity wise emission rate (clearly defining the quantity of the material to be handled) needs to be mentioned in the EIA report along with Ground Level Concentration of various pollutants, both in worst case scenario and after implementation of the mitigation measure.
- e) Detailed R&R plan needs to be submitted clearly mentioning the compensation to be paid to the project affected families.

The Committee is also of the view that the Consultant to be warned that they have to guide properly to the PP so that such case shall not come to this Committee with a letter be written to QCI-NABET for necessary action.

(2.28): J-11015/216/2016 IA-II (M): Environment Clearance of the proposed Pachar Soapstone Mine proposed by M/s Durga Mines & Minerals located at Village - Pachar, Tehsil-Dugnakuri, District: Bageshwar, Uttarakhand of an area of 12.360 ha and production capacity of 29539 TPA- Consideration for EC [IA/UK/MIN/69436/2016]

The proposal of M/s Durga Mines & Minerals is for mining of 29539 TPA of Sandstone from the mine lease area of 12.360 Ha located at the Village- Pachar, Tehsil Dugnakuri, District: Bageshwar, Uttarakhand. The Mining lease falls under survey of India Topo-sheet No 53 O/13 and between Latitude 29°53'27.39"N to 29°53'9.83"N and Longitude 79°57'25.58"E to 79°57'20.42"E. The PP submitted that letter of Intent (LoI) for the mining lease was granted by Industrial Development Department vides O.M No 1261/VII-1/240 ख / 240 dated 16.08.2016.

2. The proponent applied for grant of Environment Clearance and submits EIA/EMP report on 16.09.2017 the proposal was thereafter considered in EAC Meeting held on 23-24 October, 2017 and on 21-22 December, 2017 wherein the committee deferred the proposal for want of following additional information.

- a) Total quantity of the waste to be generated needs to be ascertained. Proper scientific study for the dump design and its stabilization is required to be done and same needs to be incorporated in the Mining Plan and other relevant documents.
- b) The plant species to be planted for developing green belt development and afforestation needs to be submitted after consultation with forest department and local public.
- c) Project Cost with break up needs to be submitted.
- d) The activity wise, time bound action plan with budgetary provision for implementation of activities proposed in CSR and ESR needs to be submitted.
- e) The number and designation of the persons to be engaged for implementation of Environmental Management Plan along with budgetary provision needs to be submitted.

3. The project proponent submitted the above information on 11.01.2018 and the proposal was again considered in the EAC Meeting held on 26-27 February, 2018. The proponent submitted that total quantity of topsoil will be 3597 m³ and inter burden will be 119425 m³. The proponent submitted that for stability of the dump the dump slope will be maintained at 37° in addition to this retention wall of 4 meter wide and 2.5 meter height will be erected at the base, side and in the middle portion of dumps to arrest rolling down of the boulders. **The Committee suggested that slope of the dumps should be regularly monitored and ensured that it should not be more than 28°. Proper terracing should be provided to reduce the ultimate slope of the dumps. Retention wall of sufficient strength needs to be erected to arrest the waste material in case of slope failure.**

4. The proponent submitted that the plant species to be planted for greenbelt and afforestation has been verified by the Gram Panchayat and DFO Bageshwar.

5. The proponent submitted that the total project cost will be ₹ 25 Lakh and machinery already available with the project proponent will be engaged for mining. The proponent submitted that amount proposed for the ESC will be ₹ 3.0 Lakh/annum. The proponent submitted that supervisor will be engaged for implementation of EMP and ₹ 1.70 Lakh (Capital Cost) and ₹ 3.5 Lakh (recurring cost) is proposed for implementation of EMP.

6. Based on the discussion held and document submitted by the proponent the Committee **recommended** the proposal for grant of Environmental Clearance with following additional conditions:

- a) Environmental clearance is granted subject to final outcome of **Hon'ble Supreme Court of India, Hon'ble High Court of Uttarakhand, Hon'ble NGT** and any other Court of Law, if any, as may be applicable to this project.
- b) This Environmental Clearance is subject to obtaining requisite NBWL Clearance from the Standing Committee of National Board for Wildlife as applicable for this Mining project.
- c) No mining activities will be allowed in forest area, if any, for which the Forest Clearance is not available.
- d) The Project Proponent shall obtain Consent to Operate from the State Pollution Control Board, Uttarakhand and effectively implement all the conditions stipulated therein.
- e) Implementation of Action Plan on the issues raised during the Public Hearing. The Proponent shall complete all the tasks as per the Action Plan submitted with the budgetary provisions during the Public Hearing and to the Ministry. The budget of ₹ 3.0 Lakh/annum, earmarked for ESR should be kept in a separate account and same needs to be audited annually and implementation report needs to be submitted to Regional Office, MoEF&CC every year.
- f) The proponent should regularly monitor the dump slopes and ensure that it should not be than 28°. Proper terracing should be provided to reduce the ultimate slope of the dumps. Retention wall of sufficient strength needs to be erected to arrest the waste material in case of slope failure.
- g) ₹ 1.70 Lakh (Capital Cost) and ₹ 3.5 Lakh (recurring cost) earmarked for implementation of Environmental Management Plan (EMP) should be kept in a separate account and same needs to be audited annually and implementation report needs to be submitted to Regional Office, MoEF&CC every year.

(2.29): J-11015/10/2017-IA-II(M) : Bayal Quartz & Feldspar Mine of M/s Mr. Manmohan Bhadana, S/o Kartar Singh Bhadana is situated at Khasra No.- 201, 223 & 224 Village Bayal, Taluka- Narnaul, District:- Mohindergarh, Haryana, over an area of 76.75 hectares & rate of production is 55,00,000TPA

IA/HR/MIN/62041/2017

1. The proposal of M/s Bayal Quartz & Feldspar Mine of Sh. Manmohan Bhadana, S/o Kartar Singh Bhadana situated at Khasra No- 201, 223 & 224 Village Bayal, Taluka- Narnaul, District:- Mohindergarh, Haryana, over an area of 76.75 hectares is for the production of 55,00,000 TPA (ROM) of Quartz , Feldspar& quartzite. The proposed method of mining is by opencast mechanized method utilizing Heavy Earth Moving Equipment (HEMM) with drilling and blasting. The provided mine lease area is in two blocks; GPS location of the blocks are: Block 1 - Lat: 27° 51.485'N & Long: 75° 58.642'E to Lat: 27° 51.970'N & Long: 75° 58.932'E and Block 2 - Lat: 27°50'54.20"N & Long: 75°58'37.58"E to Lat: 27°51.203' N & Long: 75°59.041' E.

2. The proponent submitted the proposal for grant of EC on 30.11.2017 and the proposal was considered in EAC meeting held on 21-22 December, 2017 wherein committee deferred the proposal for want of following information:

- a) Revised lease deed after inclusion of names of all the minerals to be mined.
- b) The method of mining should be in accordance with Ministry's O.M No Z-11013/57/2014-IA.II (M) dated 29.10.2014 and mining plan should be prepared accordingly, the exploration details and production planning needs to be revised accordingly in the mining plan.
- c) The District Survey Report (DSR) prepared in accordance with Appendix-X as per S.O 141(E) dated 15.01.2016 for all the minerals to be mined and Final DSR needs to be submitted.
- d) The Quantity of waste to be generated in entire life of the mine along with its method of disposal and stabilization needs to be mentioned in the mining plan and EIA Report.
- e) The Noise quality values mentioned in the EIA Report needs to be checked and revised accordingly.
- f) The budget for Enterprise Social Commitment needs to be submitted along with detailed action plan and time line for its implementation.
- g) The Environmental Management Plan needs to be revised. The capital cost and recurring cost needs to be provided. The time bound action plan needs to be submitted for implementation of EMP. The names and numbers of the posts to be engaged by the proponent for implementation and monitoring of environmental parameters needs to be specified.
- h) Mineralogical Composition of all the Minerals to be mined needs to be submitted along with concentration of free silica.
- i) The activity wise emission rate needs to be provided in the EIA Report. Incremental rise in existing average daily traffic needs to be corrected.

The GLC of various pollutants in worst case scenario and after implementation of mitigation measures needs to be provided in the EIA Report.

- j) Surveillance plan for the Silicosis and Tuberculosis along with details of persons suffering from Silicosis in the region needs to be submitted.
 - k) As habitation and temple is close to mining lease area the frequency of the vibration monitoring needs to be planned accordingly and cost of the vibration monitoring needs to be revised.
 - l) The mining lease area having some houses so need based survey and detailed R&R Plan needs to be submitted.
 - m) Revised Questionnaire after carrying out necessary correction needs to be submitted.
 - n) During the presentation as per the Google Map and DSS it was observed that the inter-state boundary of Rajasthan and Haryana is passing through Mining lease area. Hence the proponent may provide a clarification from the concerned authorities to the effect that the Mining lease falls in Haryana only.
3. The proponent submitted the above information on 08.02.2018 and the proposal was considered in the EAC Meeting held on 26-27 February, 2018. During the presentation the proponent submitted the following:
- a) Grant of letter to add the associated mineral quartzite has been obtained from the Director, Mines & Geology Department Haryana vide letter no Glg/Hy/E-2578/229 dated 12.01.2018. The revised lease deed is executed on 23.02.2018 after addition of Quartzite and Stone Mineral in the mining lease.
 - b) The proponent submitted that method of mining is adopted as per Ministry's O.M No Z-11013/57/2014-IA.II (M) dated 29.10.2014 and modified mining plan has prepared. In the modified mining plan proponent proposed that within 500 meter of any habitation mining will be done by using rock breaker and terminator. Proponent also submitted that the blasting vibration monitoring will be done on regular basis with Blastmate III on regular basis and permission of DGMS will also be obtained from DGMS for blasting within 500 m of habitation. **The Committee was of view that proponent should not carry out secondary blasting due to safety reason for this project and also provide the method of blasting to be adopted and explosives to be used for the said project.** The proponent submitted that they have proposed Rs 34 Lakh for carrying out blast vibration studies at two locations by engaging CMRI or any other reputed institute and also obtained permission from DGMS for carrying out blasting within 500 meter of habitation. **The member secretary**

informed the Committee that as per mining lease deed mining is restricted *"a) within 50 meters of outer boundary of any village abadi, National Highway, State Highway, Major District Roads (MDR) and other District Roads (ODRs) where such excavation does not require use of explosive unless specifically relaxed and permitted by the competent authority, b) within 250 meters of outer boundary of any village abadi, National Highway, State Highway, Major District Roads (MDR) and other District Roads (ODRs) where use of explosive is required, unless specifically relaxed and permitted by the competent authority or any specific dispensation is obtained from the Director, Mines Safety and c) within a distance of at least 10 meters from any other public roads"*. The committee was of view that in the conceptual plan submitted by the proponent mining is shown till the lease boundary also the shape of the conceptual plan in respect of placement of the road, spatial configuration of lease boundary and ultimate pit limit is not correct. The Committee was of opinion that no mining should be carried out within 50 meters of the outer boundary of any village abadi, National Highway, State Highway, Major District Roads (MDR) and other District Roads (ODRs), temple and no mining should be carried out within 100 meters by using explosive from the outer boundary of any village abadi, National Highway, State Highway, Major District Roads (MDR) and other District Roads (ODRs), temple even if, PP obtained permission from DGMS. For mining in the remaining area the proponent should conduct the blast vibration study by engaging CMRI or any reputed institute, the report of the same should be submitted to DGMS for obtaining the permission for carrying out mining by using explosive. The Committee was of opinion that proponent should revise the mining plan and relevant section of EIA report in view of the restriction and shortcomings mentioned above. The Committee has also opined that no fresh Public Hearing is required for modification of the Mining Plan as the modification proposed is in line with issues raised during the public hearing pertaining to mining in the close vicinity of the abadi.

- b) The proponent submitted that total mineable reserved are 126.81 Million [Quartz (54.33 Million Tonne), Feldspar (8.10 Million Tonne), and Quartzite (64.38 Million Tonne)] Tonne and at the proposed rate of 55 Million Tonne (ROM)/annum the life of mine will be 23.0 years. **The Committee noted that as mining is not to be carried out within 50 meters of the outer boundary of any village abadi, National Highway, State Highway, Major District Roads (MDR) and other District Roads (ODRs) and temple. Thus the total extractable reserved and life of mine will change in the mining**

plan considering the annual excavation planning of 55, 00,000 TPA (ROM) which include mineral production & waste generation.

- c) The proponent submitted the revised District Survey Report. **The committee noted that proponent should submit the Final DSR.**
- d) The proponent submitted that total waste generated in the entire life of the mine will be 941850 Tonne and the same may be stacked in the dump yard (290m x 80m X 6m), which shall be developed inside of the south block along with Soil Dump Yard (80m x 40m x 6m). The same may be stabilized by plantation, garland drains will be provided at the bottom of the dump and stone masonry wall will be erected for arresting the sediments.
- e) The proponent submitted that noise level has been checked and submitted that Noise level in daytime will be 59.1dBA and 44.9 dBA during night.
- f) The proponent submitted that ₹ 26.55 Lakh has been earmarked for Enterprise Social Commitment (ESC) for providing equipment in govt hospitals, installation of R.O plant in village, supply of book to government school/library, organizing health camps for villagers starting from third year, rainwater harvesting structures, organizing health camps, supply of sports material to school/gram Panchayat and installation of roof top solar panels in village Panchayat Bhawan. **The committee suggested that each activity needs to be quantified for better monitoring & cost estimation.**
- g) The proponent submitted that ₹ 336.09 Lakh (Capital Cost) and 390.27 Lakh (recurring cost) is earmarked for implementation of Environmental Management Plan. The proponent submitted that in order to reduce fugitive emission two truck mounted mist cannon water sprinklers system will be used. The proponent submitted that apart for statutory requirement for mining professionals as per provision of Mines Act, 1952 and MMR, 1961 an environmental assistant will be engaged for implementation of EMP. **The Committee observed that budget of EMP needs to be revised as it involves the cost for other expenditure which is not a part of EMP.**
- h) The proponent submitted the test report wherein mineralogical composition and free silica of different minerals are mentioned. The free silica is ranging from 15.68% to 17.24 %. Further the free silica in ambient air ranges from 0.5ug/m³ and 1.1ug/m³.
- i) The proponent submitted that the activity wise emission rate and submitted that resultant air quality index is in satisfactory range and

GLC of various pollutants are within prescribed standards. The proponent submitted that due to mining activity the level of service will shift from A to B.

- j) Proponent submitted that the surveillance plan for silicosis has been incorporated in chapter 9.6.8 of EIA Report and also submitted the Silicosis and Tuberculosis patient data obtained from the Government Medical Officer, PHC, Bayal, Mahendragarh as per which there is no case of silicosis is registered during 2017 however there are 50 cases registered for Tuberculosis. Proponent submitted that ₹ 2.62 (capital cost) and ₹ 1.64 Lakh (recurring cost) is earmarked for the surveillance plan.
 - k) The proponent submitted that blast vibration monitoring will be carried out during operational phase with Blastmate III. The implementation for the same will be outsourced to CMRI or other reputed institute. The budget earmarked for the same is ₹ 34.50 for 2 locations. **The Committee noted that in addition to blast vibration study the proponent need to monitor the vibration of each blast.**
 - l) The proponent submitted that there are total 45 household which will be affected from the project and a budget of ₹ 1.74 Crore is earmarked for the same. **The Committee noted that budget proposed in R&R plan is not sufficient and same needs to be revised.**
 - m) The proponent submitted that necessary correction has been made in the questionnaire.
 - n) The proponent also submitted a letter issued by Nayab Thasildar, Sikar, Rajasthan that mining lease in question does not fall under Rajasthan. The proponent also submitted a topo-sheet map duly approved by Department of mining & Geology Haryana showing the position of mining lease with respect to inter-state boundary.
4. Based on the presentation made, discussion held and documents submitted by the project proponent, the Committee **deferred** the proposal and proposal may be considered before the next EAC after submission of following documents:-
- a) Revised R&R Plan in respect of revision and enhancement of cost of construction of houses.
 - b) Spatial Configuration of the lease boundary, surface features, distance of habitation, type of blasting, danger zone, quantity of the mineral, ultimate pit limit , post mining land use details, mineral reserves needs to be

corrected after considering the restriction on mining as proposed by the committee in the mining plan and EIA.

c) Final DSR needs to be submitted.

d) Revised Budget of EMP needs to be submitted.

(2.30) J-11015/74/2017-IA-II (M): The proposed mining Lease Area is 126.84 Ha. With production capacity is proposed annually up to 1, 02,000 T manganese ore of ROM located in Gumgaon, Khodegaon and Tegai Village, Saoner Tehsil, Nagpur District, Maharashtra by M/s Moil Gumgaon.

Online Reference IA/MH/MIN/67094/2017

The proposal is of M/s Moil Limited for Gumgaon mining project. The Committee **deferred** the proposal as proponent did not attend the meeting.

[Annexure-I](#)

Standard Terms of Reference (TOR) for Mining Project

- 1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- 2) A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- 3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- 4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- 5) Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies,

- streams and rivers and soil characteristics.
- 6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
 - 7) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the proposed safeguard measures in each case should also be provided.
 - 8) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
 - 9) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
 - 10) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
 - 11) A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
 - 12) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
 - 13) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
 - 14) The vegetation in the RF / PF areas in the study area, with necessary details,

should be given.

- 15) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- 16) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
- 17) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 18) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.
- 19) Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished.(Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- 20) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
- 21) One season (non-monsoon) [i.e. March - May (Summer Season); October - December (post monsoon season) ; December - February (winter season)]

- primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM₁₀, particularly for free silica, should be given.
- 22) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
 - 23) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
 - 24) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
 - 25) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
 - 26) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
 - 27) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
 - 28) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be.
 - 29) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.
 - 30) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed

- up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
- 31) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
 - 32) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
 - 33) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
 - 34) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
 - 35) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
 - 36) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
 - 37) Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
 - 38) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
 - 39) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
 - 40) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

- 41) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 42) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 43) Besides the above, the below mentioned general points are also to be followed:-
 - a) All documents to be properly referenced with index and continuous page numbering.
 - b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
 - d) Where the documents provided are in a language other than English, an English translation should be provided.
 - e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
 - f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
 - g) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
 - h) As per the circular no. J-11011/618/2010-IA.II (I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
 - i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area,(ii) geological maps and sections and
(iii) Sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

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Standardization of EC conditions in Non-coal mining sector**A. Specific conditions**

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

B. Standard conditions

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

approval of the Ministry of Environment, Forest and Climate Change.

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

main Gate of the mine site.

- 16). Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM10 and PM2.5 such as haul road, loading and unloading point and transfer points. Fugitive dust emissions
From all the sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board.
- 17). Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. The monitoring shall be carried out four times in a year pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board.
- 18). Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre- mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table.
- 19). Regular monitoring of water quality upstream and downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.
- 20). The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain 'PUC' certificate for all the vehicles from authorized pollution testing centres.
- 21). Transportation of the minerals by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200

meters) for the purpose of transportation of the minerals so that the impact of sound, dust and accidents could be mitigated. The project proponent shall bear the cost towards the widening and strengthening of existing public road network in case the same is proposed to be used for the Project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads.

- 22). The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.
- 23). Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers. Crusher and material transfer points should invariably be provided with Bag filters and or dry fogging system. Belt-conveyors should be fully covered to avoid air borne dust.
- 24). Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers. The material transfer points should invariably be provided with Bag filters and or dry fogging system. In case of Belt-conveyors facilities the system should be fully covered to avoid air borne dust; Use of effective sprinkler system to suppress fugitive dust on haul roads and other transport roads shall be ensured.
- 25). Sufficient number of Gullies to be provided for better management of water. Regular Monitoring of pH shall be included in the monitoring plan and report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
- 26). There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.
- 27). The Project Proponent has to take care of gullies formed on slopes. Dump mass should be consolidated with proper filling/levelling with the help of dozer/compactors.
- 28). The reclamation at waste dump sites shall be ecologically sustainable. Scientific

reclamation shall be followed. The local species may be encouraged and species are so chosen that the slope, bottom of the dumps and top of the dumps are able to sustain these species. The aspect of the dump is also a factor which regulates some climatic parameters and allows only species adapted to that microclimate.

- 29). The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The maximum height of the dumps shall not exceed 8m and width 20 m and overall slope of the dumps shall be maintained to 45⁰. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
- 30). Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the river and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.
- 31). Plantation shall be raised in a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department and as per CPCB Guidelines. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.
- 32). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and

villages are surrounded by the mine lease area”.

- 33). The Project Proponent shall make necessary alternative arrangements, where required, in consultation with the State Government to provide alternate areas for livestock grazing, if any. In this context, Project Proponent should implement the directions of the Hon'ble Supreme Court with regard to acquiring grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded against felling and plantation of such trees should be promoted.
- 34). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.
- 35). As per the Company Act, the CSR cost should be 2 % of average net profit of last three years. Hence CSR expenses should be as per the Company Act/Rule for the Socio Economic Development of the neighbourhood Habitats which could be planned and executed by the Project Proponent more systematically based on the 'Need based door to door survey' by established Social Institutes/Workers. The report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
- 36). Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- 37). Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs.
- 38). Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.
- 39). Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
- 40). A separate environmental management cell with suitable qualified personnel should

be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.

- 41). The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office.
- 42). The project authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- 43). The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional Office, Central Pollution Control Board and State Pollution Control Board.
- 44). The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- 45). A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.
- 46). State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.
- 47). The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment, Forest and Climate Change at www.environmentclearance.nic.in and a copy of the same should be forwarded to the Regional Office.

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

Sl. No.	Name and address	Designation	26/02/2018	27/02/2018
1.	Dr. Ajai Kumar B-1302, BestechParkView Spa, Sector-47, Gurgaon, Haryana	Chairman	<i>[Signature]</i>	<i>[Signature]</i>
2.	Shri B Ramesh Kumar H-No. 6-1-134/6, Balram Compound, Padmarao Nagar, Secundrabad- 500025, Andhra Pradesh	Member	<i>[Signature]</i> 26/02/18	<i>[Signature]</i> 27/02/18
3.	Prof. Dr. K.S. Rana MaharanaManzil, 18, Dholpur House, (D.M. Compound), M.G. Road, Agra-1, Uttar Pradesh - 282001	Member	<i>[Signature]</i>	<i>[Signature]</i>
4.	Prof. A. K. Bhatnagar, JAV4B, Ashok Vihar-I, Delhi - 110052	Member	<i>[Signature]</i> 26/2/18	<i>[Signature]</i> 27/2/18
5.	Dr. N. C. Karmakar Department of Mining Engineering, Indian Institute of Technology (BHU), Varanasi - 221 005, Uttar Pradesh	Member		
6.	Dr. Hemant S. Sahasrabudhe "Utkarsha", LB-53, Housing Board Colony, Laxminagar, Nagpur-440022	Member		
7.	Prof. S. Ramakrishna Rao 50-120-9/1, Tulasi Mani Regency North Extension, Seethammadhara, Visakhapatnam - 530013 Andhra Pradesh.	Member	<i>[Signature]</i> 26/2/18	<i>[Signature]</i> 27/2/18
8.	Dr. Himanshu Pathak, Professor, Center for Environment Science and Climate Resilient Agriculture, Indian Agricultural Research Institute, New Delhi 110 012	Member		
9.	Dr. AL. Ramanathan Professor, School of Environmental Sciences, Jawaharlal Nehru University, New Mehrauli Road, New Delhi- 110067	Member		
10.	Dr. Tushar Kant Joshi, LaxmikantNiwas, SalanGaon, Bhagwantpur, Dehradun-248009, Uttarakhand.	Member	<i>[Signature]</i>	<i>[Signature]</i>
11.	Shri Santosh Gupta, Flat No. 405, Block -B, Gaur Green Vista, NyayKhand -1, Indrapuram, Ghaziabad-201014	Member	<i>[Signature]</i>	<i>[Signature]</i>
12.	Representative of Ministry of Mines Shri. Pushpender Gaur, Dy. Controller of Mines, Ministry of Mines, Shastri Bhawan New Delhi-110001.	Member	<i>[Signature]</i> 26/02/18	<i>[Signature]</i> 27/02/18
13.	Representative of Indian Meteorological Mr. V.K. Soni, Scientist "E", (Meteorology/Air Pollution), 609, SatMet Building, MausamBhawan, Indian Meteorological Department, Lodhi Road, New Delhi-110003	Member		
14.	Representative of Wildlife Institute of India, Dr. (Ms.) Asha Rajvanshi, Wildlife Institute of India, Chandrabani, Dehradun-248001	Member		
15.	Director 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>[Signature]</i> 26/2/18	<i>[Signature]</i> 27/2/18