

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

SUMMARY RECORD OF 12th MEETING OF THE COMMITTEE OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF NON-COAL MINING PROJECTS CONSTITUTED UNDER THE EIA NOTIFICATION, 2006.

The 12th meeting of the Expert Appraisal Committee for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during **December 19-20, 2019**. The list of participants is annexed herewith. After welcoming the Committee Members, discussion on each of the Agenda Items was taken up ad-seriatim.

1.1 Deliberation & Circulation on the Minutes of the 11th EAC Meeting held during November 27-28, 2019:

The Minutes of the 11th Meeting of EAC held during **November 27-28, 2019**, were circulated to the members of the Committee. The Committee made brief deliberations on the proposals placed in the last meeting and approved the same with the following amendments:

The Member Secretary informed the Committee that in Minutes of the Meeting uploaded for agenda item no 2.2 proposal of M/s. ACC LTD for Limestone project in para 2, on the 2nd line inadvertently mentioned as PP submitted that as per EIA Notification dated 14th September, 2006 and amended time to time, the project falls under Category "A, Project or Activity 1(a) (3) (mining of minerals) and 2 (b) (3) (for crusher). In place of The project falls under Schedule 1(a) of mining and is a Category - 'A' project as per EIA notification 14th September, 2006 (amended time to time) as the mining lease area is more than 100 ha. The Committee agreed with the corrections.

2.1 Devadri Iron Ore Mine of M/s KIOCL Limited for mining 2 MTPA Iron Ore (ROM) & 500 TPA Manganese & Wet Beneficiation Plant including Crushing, Screening, Conveying for a capacity of 2 MTPA in a total area of 482.367ha (ML Area 470.40 ha and 11.967 ha outside ML for conveyor corridor/road) in Devadri Range, Sandur Taluk, Bellary District, Karnataka State. File no. -11015/28/2018-IA-II(M) Proposal No. IA/KA/MIN/72345/2018, Consultant- Ecomen Laboratories Pvt. Ltd.-Consideration of EC.

The proposal of M/s KIOCL Limited is for mining of 2 MTPA iron ore (ROM), 500 TPA Manganese & Wet Beneficiation Plant including Crushing, Screening, in the mine

lease area of 470.4 Ha. The mine lease area is located at Devadari Range, Sandur Taluk, Bellary District Karnataka. The latitude and longitude of the mine lease area lie between FROM 15.02°16'91" To 15.06°21'08" N and 76.57°63'49" To 76.60°35'41" E and the Survey of India Topo Sheet No. is 57A/12.

2. The project falls under Schedule 1(a) of mining and is a Category – 'A' project as per EIA notification 14th September, 2006 (amended time to time) as the mining lease area is more than 100 ha.
3. Ministry granted TOR vide letter No. J-11015/28/2018-IA. II(M) dated 16.05.2018. Amendment in TOR was also issued vide letter No. J-11015/28/2018-IA. II (M) dated 22.02.2019. The project proponent has applied for Environmental Clearance vide proposal No. IA/KA/MIN/72345/2018 dated 18.01.2018.
4. The project proponent submitted that the Commerce and Industries Secretariat vide notification no. CI 294 MMM 2015, Bengaluru dated 23.01.2017 issued LoIn favor of the M/s K.I.O.C.L Limited in pursuance of the approval by Central Government under Section 17A(2) of the Mines and Minerals (Development and Regulation) Act, (MMDR), 1957 by reserving an area of 470.40ha (four hundred and seventy point forty ha only) in Devadari Range, Sandur Taluk, Bellary District, Karnataka. Further, the Department of Mines & Geology vide letter No. DMG/MLS/Res.KIOCL/2016-17/10301 dated 13.02.2017 issued mining lease.
5. The proposed mining lease area 470.40 ha falls in Swamimalai Block, Kumaraswami Reserve Forest Range. The additional area of 15.3725 Ha (outside ML area) also falls under Swamimalai Block Kumaraswami Reserve Forest Range. Project Proponent has submitted application for Forest Clearance vide Proposal No. FP/KA/MIN/32568/2018 dated 16.03.2018 for diversion of 485.7725 hectares of forest land in Devadari Range, Swamimalai Forest Block, SandurTq, Ballari District, which includes 470.40 ha mining lease area and 15.3725 ha required for diversion for other components like Conveyor corridor, power transmission line, service road (West), and service road (East). Forest Diversion Proposal is under process in the office of DFO/DC Bellary. The mine lease is for captive purpose only.
6. The project proponent submitted that the Mining Plan including Progressive Mine Closure Plan over an area of 470.40 ha is approved by the Regional Controller of Mines, IBM, Bangalore vide letter no.279/1096/2018/BNG/505 dated 08.03.2018. As per the approved mine plan, the mining will be Opencast Mechanized with drilling and blasting deploying shovel dumper combination will be used. The controlled blasting will be adopted in the pits to keep the ground vibration level within permissible limit. Rock breaker will be used to avoid

secondary blasting. It is proposed to carry out controlled blasting in the pits to keep the ground vibration level within permissible limit. A magazine of 10 ton capacity is envisaged within the mining lease area at the western corner of the lease. Ultimate depth of Mining will be 20-120 m below the ground surface level. It will not intersect the ground water level. The highest explosive requirement per month will be approximately 62.5 ton. The height and width of the benches will be 6m and 11m respectively both on the hanging wall and footwall side. The haul road will be laid on footwall side. The haul roads shall be of 20m width at a maximum gradient of 1:16.

7. PP also reported that they will establish 2 MTPA Beneficiation Plant including Crushing, Screening, Conveying at the mine site. The mined ore will be beneficiated to produce 1.2 MTPA of iron ore concentrate. The 0.4 MTPA Calibrated Lump Ore (CLO), 1.2 MTPA Filtered concentrate and 500 TPA Manganese ore shall be used for KIOCL's Pellet Plant/Blast Furnace at Mangaluru. ROM from the mine will be fed to crushing and screening plant through dumpers. The crushed and screened ore will be fed to the beneficiation plant through conveyors, from where it will be concentrated and filtered within the ML area itself. The filtered concentrate cake & CLO thus produced along with Manganese ore will be transported to KIOCL's Pellet Plant/ Blast Furnace at Mangaluru through rail.
8. PP reported that the total mineable reserves have been estimated to be 7,281,234 ton at an average Fe% of 58.04. However, considering the present mineable reserve, the life of mine is calculated 7 years with mine capacity of 2 MT/yr ROM production. The wastes generated in the form of overburden, interburden, filtered tailings will be disposed as external dumps at its planned location.
9. PP submitted that the baseline data was collected during summer season (March to May, 2018). PP submitted that the air quality monitoring has been carried out at 8 locations air quality concentrations of PM_{2.5} and PM₁₀ for all the 8 AAQM stations were found between 26.11 to 54.63µg/m³ and 51.28 to 86.63µg/m³ respectively. The concentrations of NO₂ and SO₂ were found to be in range of 25.87 to 12.10µg/cu.m and 15.36 to 7.00 µg/m³, respectively. AAQ parameters in the study area have been found well within prescribed norms. Ambient noise levels were measured at 8 locations in and around the mine site. Noise levels varied from 54.8 & 55.6Leq dB(A) during day time and from 55 and 50Leq dB(A) during night time. PP further submitted that ground water samples were collected from 9 locations within study area. PP submitted that the total hardness varies between 252.00 to 224.00 mg/l. PP submitted that only one surface water sample were collected from Narihala Dam reservoir and submitted all the parameters area well within the prescribed limit of IS: 2296.

10. PP reported that the total water requirement of the project will be around 150 m³ /hr or 3.6 MLD. However, as no township has been envisaged, the potable water requirement will be 25 KLD only. The source of water for the project is Tungabhadra dam located 50 km (approx.) from the project site. An intake well and pump house is proposed to be constructed on up stream of said dam.
- 11.No National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), within 10 km of the notified mine lease area.
12. The PP reported that the Karnataka State Pollution Control Board conducted Public Hearing for the proposed project of Devadari Iron Ore Mine of M/s KIOCL Limited (A Govt. of India Enterprise) for mining of 2 MTPA Iron ore (ROM) & 500 TPA of Manganese ore & setting up of 2 MTPA Beneficiation plant including crushing, screening, conveying in total area of 485.7725 ha (ML area 470.40 ha and 15.3725 ha outside ML for conveyor corridor/power transmission line/approach road) at project site, Devadari range, Sandur taluk, Ballari district, Karnataka state on 25-06-2019. The advertisement for public hearing was published in "Sanje-Vaani" on 18-06-2019 & "SwathantraHorata" daily newspaper on 20-06-2019 subsequently on 23-06-2019 and also 'BallariBelagagithu' newspaper on 12-06-2019. The Public hearing was conducted under the chairmanship of Shri M. Satish Kumar, KAS, Additional Deputy Commissioner and Additional District Magistrate, Ballari District and Shri VenkateshShekar, Senior Environmental Officer, Karnataka State Pollution Control Board, Ballari was also presented. The issues raised during public hearing were also deliberated during the meeting which includes, employment, drinking water facility, medical facility, skill development, infrastructure facility in school & village, implementation of pollution control measures, additional compensation, educational facilities, effect on agricultural crop production, road maintenance, employment to local people, etc. The PP inter-alia committed during public hearing that the project will employ around 500 persons and likely to increase the employment by another 700 persons in phased manner (skilled/semiskilled/un-skilled level) on commencement of this mine & setting up of beneficiation plant, through handling of material, transport, ancillary units, spares & consumables, supplies etc. The requirement of water would be 2953.21 m³/hr. Recovery of water in the plant would be around 2809.73 m³/hr. Therefore, the makeup water requirement for the project is 143.48 m³/hr rounding to 150 m³/hr. This quantity of water will be met from Tungabhadra dam/Narihalla reservoir. So there will be no affect to the said nallas/ground water due to this project. PP also proposed to construct Check dams at strategic location in the lease area under Environment Management Plan. Apart from the above PP also proposed to construct hospital in the factory premises and will provide mobile ambulance facility for all surrounding villages, construction of

compound wall, providing computers, construction of toilets for all schools existing in the surrounding villages.

13. The PP further submitted that the total cost of the project is 787.50 Crore and total direct employment will be given to around 500 persons and Indirect employment will be about 700. PP mentioned that the CER will be implemented in 1st Five-year plan period on execution of mining lease deed and commencement of mining activities. Company will budget 2% of the profit each year towards CSR fund.

14. Based on the discussion held and document submitted, the EAC in its meeting held on 19-20 December, 2019, **deferred** the proposal for want of the following information:

- I. Approval for the allocation of water from Tungabhadra Dam to use in Devadari Ore mine.
- II. Submit the present status of the forest clearance for 470.40 ha mining lease area and outside the mine lease are of 15.3725 ha.
- III. PP need to bring out the total excavation quantity for mineral wise, waste generation, Top soil generation, OB/IB/SB generation and its quantity of reserves mineral wise etc.,
- IV. PP need to submit the Revised CER for the total cost of the project including cost of land
- V. PP need to submit the EMP cost.
- VI. List of Flora & Fauna details duly authenticated by the Department of Forest/Wild life division of the state Government.
- VII. PP need to bring the Revised R&R plan and the HR policy for the engagement of 500 employees.
- VIII. Permission for shifting of School and its alternative location
- IX. Estimated quantity of Manganese reserve and life in the mine lease area
- X. PP did not provide the details of the overburden, inter-burden, top soil generation etc.
- XI. PP need to submit the plan of utilization of wastes overburden, inter-burden, filtered tailings and its dumping locations should bring out.
- XII. Undertaking for not utilization of ground water resources.
- XIII. Undertaking by way of Affidavit in compliance of the Ministry OM 30.05.2018.

2.2 Expansion in production of Limestone from 9.10 MTPA to 14.10 MTPA by M/s Wonder Cement Limited in mine lease area 740.93 ha (ML NO. 22/2007) at Villages – Bhattkotari, Lasravan, Phalwa and Rasulpura, Tehsil– Nimbahera, District– Chittorgarh, Rajasthan. File No. J-11015/69/2018-IA. II (M); IA/RJ/MIN/74953/2018; Consultant Vimta Labs Limited]-EC

The proposal of M/s Wonder Cement Limited is for enhancement of limestone production from 9.10 MTPA to 14.10 MTPA (14.53 Million TPA of ROM) from Bhatkotari Limestone Mine, Lease having mining lease area 740.93 Ha, located at – Bhatkotari Villages, Lasravan, Phalwa and Rasulpura, - Nimbahera Taluka, District-Chittorgarh, Rajasthan. The mine area is a part of the Survey of India Topo-sheet No. 45L/10, 45L/6, 45L/9 between coordinates Latitude from 24°39'14.4" to 24°40'27.67" N and Longitude from 74°35'13.51" to 74°37'46.16" E. The mine lease falls in seismic zone-II as per IS-1893 (Part- 1)-2002.

2. The project falls under Schedule 1(a) of mining and is a Category- "A" project as per EIA notification 14th September 2006 (as amended) as the mining lease is more than 100 Ha.
3. The PP vide proposal No IA/RJ/MIN/8511/2012 applied online for grant of ToR 12.06.2018 and submitted Form-1 and Pre-Feasibility Report. The proposal was considered in EAC meeting held on 19th July, 2018 wherein the Committee recommended for grant of ToR for Bhatkotari Limestone Mine with Proposed Production capacity of 14.10 Million TPA of limestone by M/s Wonder Cement Limited, Located at – Bhatkotari Villages, Lasravan, Phalwa and Rasulpura, - Nimbahera Taluka, District-Chittorgarh, Rajasthan (MLA: 743.93ha). The ToR was issued vide Lr. No. J-11015/69/2012. IA. II (M) dated 7th August, 2018.
4. The Project Proponent vide proposal No. IA/RJ/MIN/8511/2012 applied online for grant of EC on 19.04.2019 and submitted EIA/EMP Report after conducting public hearing and the proposal was placed in EAC meeting held during 27-28 June, 2019 wherein the Committee returned the proposal in present form due to some shortcomings. The PP submitted the revised Form-2 vide proposal No. IA/RJ/MIN/74953/2018 dated 2.12.2019 along with other information sought by EAC. The proposal is now placed in EAC meeting held during 19-20 December, 2019.
5. The PP reported that Govt. of Rajasthan vide letter no. F5(76) Khan/Gr.2/07 dt.23-8-2008 granted mine lease in 740.93 ha area. The lease deed executed on 8- 9-2008 and registered on 9-9-2008 for 30 years from 9-9-2008 to 8-9-2038. The PP reported that mining lease validity was extended for a period of 50 years i.e. up to 08.09.2058 vides Govt.order.no.F5 (76) Khan/Gr.2/07 dated 30.06.2015.

Observation of EAC: *The Committee previously observed that out of total mining lease area is 740.930 ha, 31.096 ha is Govt. waste land, 41.253 ha is grazing land and 668.581 ha is private land. PP needs to provide supporting documents for*

change of land use from grazing land to industrial use (i.e. for mining). The detail for conversion of agricultural land for mining purpose needs to be submitted.

PP submitted that 269.608 Ha land was acquired in Phase-1 through revenue department and fulfilled all the formalities as per the land acquisition cases under section 89 of RLR Act, 1956 for ML 22/7. In phase II, 129.67 Ha was acquired through the State Revenue Department. PP also submitted the relevant document in this regard.

- 6.** Environmental Clearance for the said mine for capacity of 3.75 MTPA was granted by MoEF vide Letter No. J-11011/506/2007- IA II (I) dated 11th June, 2008. Operation of limestone mines commenced in April 2011. Thereafter, PP obtained EC for expansion of limestone production 3.75 to 9.10 MTPA vides Letter No. J11015/319/2012- IA/II (M) dated 19-12-2013. The PP then obtained amendment in EC for intersection of ground water vides Letter No. J-11015/319/2012- IA/II (M) dated 30.06.2016.
- 7.** The mining plan has been approved by Indian Bureau of Mines, Ajmer, vide letter no 682(23) (755)/10- MCCM (N)-Udai dated 20-7-2011. The Review of mining plan with progressive mining closure plan of 14.1 MTPA limestone has been approved by Indian Bureau of Mines vide letter No 584(4)(3) (1764)/2018 dated 19.12.2018.

The PP submitted that Mining operations are carried out by fully mechanized open cast method, utilizing Heavy Earth Moving Equipment (HEME). Blasting is carried out to create fragmented material. The lease area is predominantly outcropping with limestone and is practically devoid of any overburden except for small patches of shale. WCL Bhatkotari limestone mines is a fully mechanized opencast mine. Height of the bench is 10 m and the width of the benches varies from 20-25 m. The working is done by putting 115 mm dia DTH holes by ROC L-8 & IBH10 drill machine & blasting by ANFO & booster charge with NONEL technology. The mechanized method will consist of the following operations. a) Cleaning the top surface by dozers. b) Drilling and blasting c) Excavation and loading by excavator and d) Haulage by dumpers up to crusher. Drilling is being carried out by using wet drill. Blasting is being done by using slurry explosives with nonel detonators. Hydraulic excavators are being used to load the blasted limestone into 55 Ton dumpers and the same is transported to the crushing plant located at a distance of about 1.5 km. At present 2 nos. of 1400 TPH capacity limestone crushers are in operation and for the present expansion additional one no. 1400 TPH capacity crusher is proposed. The PP submitted that mineable reserves are estimated to be 436.7 million ton and balance reserve as on 1st

April 2019 is 429.23 million ton and as per the planned production at the rate of 14.10 MTPA mining, life of the mine works out to be 29 years.

PP submitted that at the conceptual stage the area of pit/quarry will be 337.65 Ha, (Waste dump +Top Soil Stack+ Mineral Stack + Infrastructure + subgrade stock + crusher), Roads 10 Ha, and area under plantation will 121.0 Ha (Plantation will be done 43.22 ha along 7.5m barrier & non mineralized zone, over upper two mined out bench 54.0 ha and back filled dump area 23.78 ha) + remaining land 272.28 Ha. PP submitted that at the conceptual stage of mining, the worked out pit will be converted into water reservoir. During the five year of Mining Plan period, waste will be generated. There exists a thin layer of about 0.5- 1.0-meter-thick top soil layer. This will be removed separately and simultaneously used for plantation. Only temporary storage for top soil is proposed. Presently waste generated is kept in waste dump site and in the conceptual stage, total waste (inter burden + screen reject) will be about 20.25 million tonnes which will be used for back filled on 23.78 ha area within mined out pit.

Observation of EAC: *The Committee previously observed PP has proposed that end of life total waste generation will be 20.25 Million tone which will be backfilled on 23.78 Ha area. But it appears that PP did not consider the impact of the same in the predicted impact on air quality as the re-handling of the waste will have impact on the environment. Further, PP did not provide that when will backfilling will start. Ideally, it should be in progression to mining activities so as to avoid re-handling of the waste and also land degradation for storage of the waste. Thus, PP needs to provide the total excavation plan for entire 29 years (year-wise) to enable the committee to understand the progression of mine over the years, for each year PP needs to submit the proposed backfilling plan if any, plantation plan, reclamation & rehabilitation plan so as to finalize the project specific conditions.*

The Committee also observed that on viewing the KML file there is a stock maintained at east side of the mining lease boundary. It is not clear from where this material has come and whether the same is proposed in the approved mining plan. Thus, details of the same needs to be provided.

PP submitted that the air quality modeling has been done for total excavation considering the re-handling of material and back filling. The GLC values in the control and uncontrolled case are well within the prescribed NAASQ limits. PP submitted that backfilling will be done after mineral will get exhausted and shall be started 10 years prior to end of mine life and around 2.695 million TPA of material will backfilled from 2038-39 onwards. Total material backfilled will be 26.953 million Tonnes. PP submitted that in the next 5 years (2019-20 to 2023-24) 2500 saplings/annum will be planted covering 1 Ha area/annum. The budget earmarked for the same is Rs 10 Lakh/annum. PP submitted that till end of life total 280046

saplings will be planted covering 121 Ha and the budget proposed for the same is 11.19 Crores. PP also submitted that the stock pile maintained at the eastern side is of additive storage area which is approved in the mine plan

Committee is of the view that backfilling @ 2.695 million TPA shall be commenced from 2038-39 onwards but PP should explore the possibility of early & simultaneous backfilling.

- 8.** PP submitted that the Ground water level depths in buffer zone (10 km radius) was found to be varying between 30 m to 40 m bgl indicating that the water tables are relatively deep at certain places. Water table levels in and around the ML area is found to be varying between 30 m and 40 m bgl and is observed to be shallow in western and central part and deep in north, north west and southern part. PP submitted that the mine working will intersect the ground water table. PP submitted that application regarding Groundwater clearance / NOC for dewatering of groundwater during mining has been approved by CGWA, Rajasthan. PP submitted that existing water demand is 112 KLD and total water requirement after proposed expansion of the project will be 175 KLD [80 KLD for Dust suppression, 32 KLD for Green Belt, 30 KLD for Drinking & Sanitation, and 33 KLD for Mine workshop]. PP submitted that total water requirement for Bhatkotari Limestone Mine is 175 KLD for proposed expansion project. Out of which 145 KLD is recycled water and balance 30 KLD is fresh water requirement. PP submitted that recycled water from ETP/STP will be used for sprinkling on haulage road for dust suppression. Groundwater will be used for drinking.

Observation of EAC: *The Committee previously observed that PP has obtained amendment in EC vide letter No. J-11015/319/2012-IA II (M) (pt) dated 30.06.2016 wherein permission for intersection of Ground Water Table was granted. The PP has obtained permission from Central Ground Water Authority for intersection of Ground Water Table vide letter dated 04.07.2008. The same has been renewed in 2011 vide letter no. 21-4(212) WR/CGWA/2007-1570 dated 09.10.2015 for intersection of Ground Water Table. This NOC was valid for 3 years i.e. up to 8.10.2018. The PP has applied for EC 17.05.2019 i.e. after the expiry of NOC but PP did not upload the renewed NOC if any. Thus, PP needs to provide copy of NOC obtained from CGWA from time to time and the copy of application made to CGWA for renewal and its current status. The Committee asked Ministry to examine the recent guidelines of CGWA and take necessary action for any violation in the instant case.*

The ground water scenario report - Oct 2017 for Rajasthan shows that the Nimbahera comes under over exploited category and therefore, PP needs to submit alternative means to meet the water requirement for the project. Also mitigative

measures is required to be provided, in case no alternative and reliable source is available.

PP submitted that NOC for ground water intersection was granted vide CGWA letter dated 9.10.2015 and NOC for ground water extraction was granted vide letter dated 4.07.2008, 20.05.2011, 29.05.2015 (modified on 9.10.2015). PP submitted that they have applied for renewal of CGWA NOC on 9.01.2017 the same was forwarded by DC, Chittorgarh to Regional Director CGWB on 11.05.2017, Regional Director CGWA, Jaipur informed us vide letter dated 27.03.2018 to submit the application of expiry of NOC, application was re-submitted to Regional Director CGWA, Jaipur on 22.05.2018, Regional Director CGWA, Jaipur forwarded the application of the Member Secretary, CGWA, Delhi on 10.09.2018. The Member Secretary, CGWA, Delhi vide circular no 25-23/CGWA/NOCAP/2018 dated 7.02.2019 has notified to keep all the NOC application on hold till further order in view of Hon'ble NGT order dated 29.08.2018. Our application has been evaluated & recommended at various levels and final approval of CGWA is awaited. PP submitted that as per our water balance cycle fresh water requirement of mines will be 30 KLD, CGWA & MoEF&CC already granted permission to use seepage water of 34 KLD for gainful use. Therefore, the drinking water requirement of 30 KLD is fulfilled by mine seepage water and there is no requirement of ground water extraction through borewells. PP submitted that as per specific condition no I of EC granted for cement plant vide letter No J-11011/298/2012-IA. II(I) dated 4.10.2019, MOEF&CC directed us to explore the possibility of surface water source for the process water of integrated cement plant within 3 years from the date of issuance of EC, we have sufficient water in mine pit and the same will be used for cement plant within 3 years.

PP submitted that WCL has constructed 4 nos of water harvesting structures in mines & 6 Nos in adjoining Cement Plant premises. Recharge wells are also constructed in the nala passing in the Cement Plant premises. WCL is also taking action for re-charge of ground water in surrounding villages by deepening of existing water reservoir, renovation of anicuts etc. Total recharge in mine, plant and colony through all the rain harvesting structure will be 2339275 mcum.

The Committee is of the view that PP has already applied for renewal of NOC before the expiry of the same and matter is under consideration with CGWA, Delhi. Ministry has already issued letter to CGWA to take necessary action for any illegal abstraction of ground water. PP already submitted that no groundwater from bore well will be used for mine working and within 3 years i.e. by 3.10.2022 only surface water will be used for cement plant. Committee also observed that fresh water demand is 30 KLD and balance requirement is met from recycled water.

9. The PP submitted that during the initial 5-year period, Green belt/plantation is proposed over 5 Ha (2500 saplings/year/Ha). The budget earmarked for the same is Rs 10 Lakh/annum. PP submitted that at the end of life of mining, the area under plantation will be 121 ha. The entire area under plantation will be fenced with 2-meter-high barbed wire fencing and entrance is restricted for the safety of plantation. PP submitted that plantation will be done on 43.22 ha along 7.5 m barrier & non-mineralized zone, 54.0 Ha over upper two mined out bench and 23.78 Ha on back filled dump area. Total plantation is covering an area 121.0 ha. Green Belt will be developed around the lease boundary, haul road, office plantation will be done on undisturbed area, reclaimed area, nearby workshop & mine office etc. Local species will be planted after consultation with local forest officer and as per CPCB guidelines. The trees are planted at suitable grid spacing (as per MOEF specified norms) leading to proper growth. Species planted include Acacia nilotica(Babool), Butea monosperma (Dhak), Prosopis cineraria (Khejari), Ziziphus mauritiana (Ber), Ipomoea carnea (Behaya), Nerium oleander (Kaner), Opuntia elatior (Nag phani), Prosopis juliflora (Vilayati babool), Dalbergia sissoo (Shisham), Delonix regia (Gul Mohar), Azadirachta indica (Neem) etc. PP submitted that till end of life total 280046 saplings will be planted covering 121 Ha and the budget proposed for the same is 11.19 Crores.

Observation of EAC: *Committee previously observed that in the Form-2 the PP has mentioned the density of tree plantation per ha (in no.) is 2500 and in the EIA Report as 1000 saplings/ha which is not in agreement. Further, there is no proposal for plantation beyond lease area. PP needs to revise its plantation target and include the area beyond mine lease and submit with associated budgetary provision and timeline to achieve the targets.*

PP submitted that plantation and green belt development activity was started in 2011 both within the mining lease area and outside the mining lease area. PP submitted total 54746 saplings has already been planted on 30.9 Ha (@ 1771 saplings/ha) inside the mining lease area and 69090 saplings has already planted on 34.38 Ha area outside mining lease. PP submitted that they have revised the density of plantation to 2500 saplings/ha and total 280046 saplings will be planted on 121 Ha mining lease area. In addition to this total 30740 saplings protected with tree guards will be planted outside the mining lease area in the next 5 years and a budget of Rs 99.36 Lakh is proposed for the same

10. PP submitted a letter No F11(75) Vikas-II/CWLW/2019 9482 dated 2.12.2019 from Chief Wildlife Warden, Rajasthan wherein it has mentioned that that there is no Wild Life Sanctuary or National Park within 10 km of ML 22/07. PP submitted a Certificate in this regards stating "No National park, sanctuaries,

Biosphere reserves, Wildlife corridors within 10km of Mining lease hold area,” obtained from District Forest Officer, Jaipur, Rajasthan, vide letter No. S. No/Survey/2007-08/10402 dated 01.10.2007. PP submitted letter dated 15.11.2019 from chief conservator of forest wherein it has mentioned that mining lease is outside forest land

11. The PP submitted that there are three schedule-1 species viz. peacock, Leopard and Indian wolf is present in the study area. The PP has submitted letter No 5521 dated 6.09.2013 issued by Addl. Chief Conservator of Forest & Chief Wildlife Warden thereby submitting the authenticated map and conservation plan to MoEF&CC.

Observation of EAC: *Committee previously observed that copy of conservation plan is not illegible online due to this EDS was raised by the Ministry but PP even in its reply to EDS did not upload the complete documents. Thus, same needs to be submitted along with details of amount proposed for conservation plan, proof of deposition of the same in government account and activities carried out so far.*

PP submitted that MOU for implementation of wildlife conservation plan was made with State Forest Department. DFO Chittorgarh has forwarded the signed MOU to CCF-Udaipur and Chief Wildlife Warden Jaipur for approval. Under MOU condition WCL will deposit Rs 22 Lakh/annum to Forest Department for implantation of plan. Amount will be deposited to DFO Chittorgarh immediately after obtaining approval from CWLW, Jaipur .

12. PP reported that the baseline data on micrometeorology, Air, Water, Noise & Soil has been generated during pre-monsoon season (March, 2018 – May, 2018). The monitoring results of ambient air for SO₂, NO₂, PM₁₀ and PM_{2.5} are within the prescribed CPCB limits for “Industrial, Residential, Rural & other areas”. Benzene and BaP were observed to be below detectable limits. All heavy metals specified in the NAAQs 2009 i.e., Ni, Pb and As were found to be BDL. In total, 15 water samples were collected from different sources around the project site within the periphery of 10 km. The water quality of ground water samples were found to be within the prescribed IS:10500 norms. The surface and ground water quality is well within the limit except as G11 location wherein in the TDS value is above 2000 mg/l. The day time noise levels at all the locations ranged from 45.6 to 70.7 dB (A) with the maximum recorded at mine site (N1), and the minimum at Manji ka Goda (N5). The night time noise levels ranged from 42.2 dB (A) to 56.7, with the maximum value recorded at mine site (N1) and the minimum at Manji ka Goda (N5). The soil samples were collected at 15 locations and it has been observed that the texture of soil is mostly sandy clay and clay in the study area. The soil from the study area

indicates that fertility is good due to their NPK content. The PP submitted that resultant concentration of PM₁₀ is well within the range.

Observation of EAC: *Committee previously suggested that PP needs to make a comparative analysis (2013 onwards) of various pollutants and also predict the possible further scenario. PP needs to provide the GLC values of all the pollutants in control case and worst case scenario. Controlling factor for the control case needs to be defined and how PP achieves the same. The transportation of the mineral from mines to plant is through belt conveyor via stacker & reclaimer. The PP needs to ascertain the impact of stacker & reclaimer also. The Committee observed that PP did not bring out the level of various pollutants considering the cumulative impact of the other cement and mining leases in the close vicinity of this project rather an isopleth is provided which is not illegible to understand the impact. Thus, PP needs to bring out the impact clearly. What is the specific diesel consumption from mines and how PP reduce the same in future? PP needs to provide the target for reduction of specific diesel consumption. PP should clearly bring out the impact of mining operation on air, water, noise and soil quality over the years. Whether PP has monitored the outcome of rainwater harvesting structure already constructed and is there any positive impact on the ground water level of the area. PP needs to provide the correct water balance cycle. PP needs to provide the alternative arrangement of water (other than ground water). Noise quality data inside the mining lease area during operation and outside area (which includes nearby villages, colony, school etc.) and level of reduction due to development of green belt needs to be submitted. The Committee also observed that there are villages in the close vicinity of the mining lease and impact of mining on the same needs to be ascertained and bring out specifically. The PP should also provide the location & frequency of air, water, noise and soil quality monitoring stations already established and to be placed post expansion. PP needs to provide the location of the proposed crusher to be installed.*

In response to the EAC observations, PP submitted the comparative analysis of air quality, water quality, noise quality and soil quality from 2013 onwards. PP submitted that PM_{2.5} & PM₁₀ levels has slightly decreased in 2018 as compared to 2013 with a few exceptions. The overall PM_{2.5} & PM₁₀ levels were observed to be within permissible limits in study period. There is no considerable increase in SO₂ concentration. The maximum and minimum values of NO_x varies between 15% to 30% with few exceptions. Increased in vehicular flux irrespective of the mining activity at study location may considerably change the NO_x levels. The ambient air quality was observed to be within NAASQ standards in the study area PP submitted that the overall noise level is observed to be within the permissible limit during 2013-18. PP submitted that water holding capacity of Soil has slightly decreased from 2013-14 to 2017-18. There is no change in chloride value, increase in nitrogen value, and slight change in phosphorous and potassium values has been observed.

PP submitted in the study area ground water quality was found to be within acceptable limits as per IS 10500 as on 2018. There is slight increase in iron content from 2014 to 2018.

PP submitted the GLC values in control and uncontrolled case scenario, combined impact of limestone mining and cement plant, cumulative impact due to surrounding mining and industries. Resultant concentration is well within the prescribed NAASQ limits. PP also provided the details of mitigative measure for air pollution control at WCL Mines. PP provided the fuel consumption of mining machinery and steps taken by WCL for the reduction of the same. PP submitted that WCL has constructed 4 nos of water harvesting structures in mines & 6 Nos in adjoining Cement Plant premises. Recharge wells are also constructed in the nala passing in the Cement Plant premises. WCL is also taking action for re-charge of ground water in surrounding villages by deepening of existing water reservoir, renovation of anicuts etc. Total recharge in mine, plant and colony through all the rain harvesting structure will be 2339275 mcum. PP submitted that drinking water requirement of 30 KLD is fulfilled by mine seepage water and there is no requirement of ground water extraction through borewells. PP submitted that noise level inside and outside the mining lease area at 5 locations was monitored and it has observed that noise level is less outside the boundary wall at all location due to greenbelt developed along the ML boundary. PP submitted that Bhatkotri village is protected by 3 line of safety masonry wall of 2-meter height, second green belt of 4 rows of tree with 15-20 feet height around 10 years old and third line of earthen berm of 4-5 meter height with plantation on top to control and minimize the impact of mining. PP also provided safety measures taken in pursuant to Ministry's O.M No. Z-11013/57/2014-IA. II(M) dated 29.10.2014. PP also submitted the monitoring details viz **a) Air Quality** [i) ambient air quality monitoring (6 locations; twice in a week), ii) Stack Monitoring in existing crushers and proposed crusher (once in a month), fugitive dust sampling at work zone as per CPCB & RSPCB (once in 3 months)], **b) Metrological Data** Cement Plant (daily), **c) Water & Waste Water Quality** [i) effluent/industrial waste water (once in a month), ii) Ground Water (13 locations ; once in a quarter), iii) surface water (8 locations; half yearly), water level monitoring in wells or piezometers (quarterly)] , **d) Noise Quality** (4 location around mining lease & high noise area and 7 location outside mining lease ; Quarterly), **e) Soil Quality** (4-6 location in core & buffer zone; yearly) [P.83-85 presentation]. PP submitted at present 2 nos. of 1400 TPH capacity limestone crushers are in operation and for the present expansion additional one no. 1400 TPH capacity crusher is proposed.

13. PP reported that there is no court case/ litigation pending against the project.

14. The public hearing for the proposed enhancement of limestone production from 9.10 MTPA to 14.10 MTPA was conducted by Rajasthan Pollution Control

Board (RSPCB) on 14th February 2019, under the Chairmanship of Additional District Collector, Chittorgarh, near public place Surpur Balaji Temple, Rasulpura Village, Nimbahera Tehsil, District Chittorgarh, Rajasthan, as per the Environmental Impact Assessment Notification dated 14th September, 2006. The advertisement for public hearing was published in 'Rajasthan Patrika Daily' (09.01.2019) and 'Indian Express' (09.01.2019). The Committee deliberated on the issues raised during the public hearing and the major issues raised by the local people were related to employment, noise pollution, air pollution, impact of blasting, health issues, development work for the villagers, not fulfilling the previous public hearing commitments, compensation to land owner which has previously given their land to company, advantage of skill development program, impact of mining on the nearby agricultural land particularly due to water holding capacity of the nearby fields, use of more amount of ground water for mining activities, decrease in crop production, implementation of mine closure plan, 'gaushala' needs to be constructed and issues related to job opportunities after skill development program etc..

Observation of EAC: *Previously committee suggested that PP needs to submit the compliance of the R&R activities previously proposed during the appraisal of the previous environmental clearance. The Committee observed that there are some important issues raised during public hearing and it is necessary that PP should submit i) the compliance of commitment made during the previous public hearing, ii) how many person lost their land and how many people got the employment ,iii) what is the outcome of the skill development program whether people are getting its benefits or not, iii) how many persons trained under skill development program got the employment/alternate job opportunities, iv) whether company has monitored the crop productivity of the nearby area, if yes, details of the same needs to be provided, if no then PP needs to examine the same and clearly bring out the decrease in water level in the nearby agricultural field , deposition of fine dust on the crop and it's level, decrease in crop production over the years. The study should be done by expert agency to clearly bring out the impact of mining and cement industry on the crop production and what is the area of influence. Based on the study report PP should plan the crop compensation plan as per area of influence. The study should clearly bring out the reason for loss of productivity whether it is due to water scarcity or due to deposition of fine dust etc., and v) PP should also plan for compensation to be paid to farmers for crop damage due to mining activity or cement manufacturing. PP should provide its commitment, time line and budgetary provision of the activities to be undertaken to address the issues raised during PH. The Committee is of the view that PP should provide the complete details of the implementation of R&R plan The Committee also observed that lease boundary falls in various villages but there are two villages adjacent to lease boundary which has habitation. Thus, the PP needs to provide the*

protection provided to them in pursuant to Ministry's O.M No. Z-11013/57/2014-IA. II (M) dated 29.10.2014.

PP submitted that around 461.57 Ha of land was acquired in 2 phases and fulfilled the formalities under section 89 of RLR Act, 1956 and paid compensation of land to tune of 57.16 crores. PP submitted that total employment generation by WCL is 2911 (509 direct & 2002 indirect). Around 2183 person (588 direct & 1595 indirect) from Rajasthan and total 925 persons (40 direct & 885 indirect) from Nimbahera Tehsil was provided employment. PP submitted that out of 702 project affected families in addition to land compensation WCL has provided job opportunities & skill development training to 109 persons (8 direct employments, 52 indirect & 49 skill development training). With respect to impact on crop productivity PP submitted that data from agricultural department from 2013 to 2019 was analysed and it has observed there is no impact on crop productivity as the crop yield data was stable. PP submitted that they have requested Director of Research, Rajasthan Agricultural College, Maharana Pratap University of Agriculture & Technology, Udaipur to carry out study for the same.

PP also submitted that in order to understand the needs to the Project Affected Persons (PAPs) a survey was carried out vide field interaction with PAPs. The needs of the PASs identified are i) revenue oriented skill development initiatives for PAF's & PAP's sustainability, ii) construction of village roads with solar street light, iii) support for sanitation improvement in nearby villages, iv) training to farmers for organic farming & income generation, v) strengthening primary education, vi) provision for safe drinking water, vii) establishing competitive centers for enhancing capacities and knowledge of the job aspirants, which may lead to absorption in government and major private industries as well. PP also submitted an action plan to support project affected families which includes i) priority will be given to all the eligible PAFs in M/s WCL rolls and also in MCL's authorized contractors, ii) initiating the revenue oriented initiatives to all the interested PAFs and PAPs for their sustainability, iii) establishing competitive coaching centers, so as to encourage the employability to all the interested candidates in the affected villages, which enhance the scope to get better job opportunities in both government and corporate sector as well, iv) creation of seed capital to women self-help groups formed with PAFs at the affected villages, v) Forming and strengthening the Women federation with PAFs and ensure that, the federation function as local level bank to serve the needy women community, vi) Strengthening of Women SHG & support in entrepreneurship to women, vii) construction of drainage facilities in all the affected villages through community participation, viii) support to villagers for organizing sport tournaments or religious programs , ix) plantation in nearby villages with tree guards or as per requirement of villagers, x) introducing the teaching volunteers in all the needy primary schools to strengthening the primary education at the

affected villages, and xi) establishing safe drinking water facilities in all the affected villages.

15. The PP previously proposed a budget of 30 Lakh (Rs. 6.0 Lakh/annum) for activities proposed under CER. As per the CER policy dated 1st May, 2018, 1.0 % fund of the proposed project cost is to be allocated for the CER activities. The total cost of the proposal is Rs. 30.0 crores, for which the 1.0% CER cost amounts to Rs. 0.3 crores (30 lakhs). CER fund allocation of Rs. 30 Lakhs. This proposed amount will be spent on a) Supply of books and stationary to students of nearby villages for 0.6 lakh/annum for consecutive 5 years from 2019 to 2023 Under the Education sector b) Work as per requirement of community for 0.4 lakh/ annum for consecutive 5 years from 2019 to 2023 Under the Education sector. c) Creation of more SHG groups in surrounding villages for 0.7 lakh/annum for consecutive 5 years from 2019 to 2023 Under Women Empowerment d) Work as per requirement of community for 0.3 lakh/ annum for consecutive 5 years from 2019 to 2023 Under Women Empowerment. e) Construction of cattle water tank in villages for 0.5 lakh/annum for consecutive 5 years from 2019 to 2023 Under the Drinking Water. f) To provide support for recharge of tube wells in villages for 0.5 lakh/annum for consecutive 5 years from 2019 to 2023 Under the Drinking Water. g) Maintenance of drainage system in village streets for 0.8 lakh/annum for consecutive 5 years from 2019 to 2023 Under the Infrastructure. h) Installation of solar street lights in villages for 0.7 lakh/annum for consecutive 5 years from 2019 to 2023 Under the Infrastructure. i) Organize health camps in villages for 0.7 lakh/annum for consecutive 5 years from 2019 to 2023 Under the Health. j) Veterinary Check-up Camps in villages for 0.8 lakh/annum for consecutive 5 years from 2019 to 2023 Under the Health.

Observation of EAC: *Previously Committee suggested that PP needs to design its CER program according to the needs of the villagers and local community. PP needs to carry out analysis of the needs of the local community both through the issues raised during PH and interaction with community residing in the nearby villages and based on the need based analysis revise its CER budget and activities.*

PP submitted that revised budget for CER is Rs 50 Lakh but during the discussion held in the meeting and understanding the importance of CER activities and suggestion made by EAC, PP revised the budget under CER from Rs 30 Lakh to Rs 150 Lakh which includes **Activity-1: Natural Resource Management** [a) Ground water recharge by deepening of village ponds in village Bhatkotri & Rasulpura (Rs 7.5 Lakh @ 1.5 lakh/annum from 2019 to 2023)], **Activity-2: Women Empowerment** [a) To provide sanitary vending machines in Govt Girls

Schools, Village Govt Health Centers and SHG Groups, b) Strengthening of Women SHG & support in entrepreneurship to women in Phalwa & Rasulpura, c) support of BPL community for marriage of girls in Rasulpura & Bhatkotri, d) scholarship to girls for higher education in Lasrawan & Bhatkotri (Rs 37.5 Lakh @ 7.5 lakh/annum from 2019 to 2023)], **Activity-3: Health** [a) Facilities to under privileged group for treatment of critical diseases like cancer/heart surgery etc. in village of Bhatkotri, Rasulpura & Lasrawan, b) Providing Medical equipment/furniture to Health Centers as per requirement in village Phalwa & Rasulpura (Rs 20.0 Lakh @ 4.0 lakh/annum from 2019 to 2023)], **Activity-4: Sanitation** [a) Renovation of Govt School Toilets in village Phalwa, Lasrawan & Rasulpura, b) Construction of household toilets in village Lasrawan (Rs 20.0 Lakh @ 4.0 lakh/annum from 2019 to 2023)], **Activity-5: Agriculture** [a) support to farmers for construction of pits for organic compost in Bhatkotri & Rasulpura , b) Creation of Seed Banks , c) Agriculture awareness programmes (Rs 25.0 Lakh @ 5.0 lakh/annum from 2019 to 2023)], **Activity-6: Infrastructure** [a) Installation & maintenance of LED street lights in villages as per requirement in Bhatkotri Lasrawan & Phalwa village (Rs 15.0 Lakh @ 3.0 lakh/annum from 2019 to 2023)], **Activity-7: Skill Development & Employment** [a) To provide online library in Govt School for referring course syllabus, employment coaching exams etc. b) cottage product making training to women SHG in all surrounding villages (Rs 25.0 Lakh @ 5.0 lakh/annum from 2019 to 2023)].

The Committee appreciates the steps proposed by the PP but is of the view the activities which not covered under CER action plan but come out from need based survey of PAPs and action plan proposed to support the project affected families, the same needs to be completed from CSR budget within 3 years. In case the amount proposed under CER is left unspent than the same should not be diverted and kept for CER activities beyond 2023. At the end of life of mine if any amount remains unspent than the same should be spent in consultation with local administrations for the development of nearby villages.

16. Certified Compliance report of Bhattkotari Limestone mine with enhancement of production capacity from (9.10 MTPA to 14.10 MTPA) at Villages- Bhatkotari, Lasrawan, Phalwa and Rasulpura, Taluka- Nimbahera, District- Chittorgarh, Rajasthan vide letter No IV/ENV/R/Mines/517/872/2014/607 dated 29.01.2019.

Observation of EAC: *The Committee previously observed that the mine is operating under previous EC. The compliance status of previous EC is required to be submitted by PP with special emphasis on Plantation conditions. This shall be submitted at the earliest, preferably within 15 days to expedite the process of verification.*

PP submitted the RO Compliance Report wherein no violation was reported. In addition to this PP submitted the supporting documents for compliance of EC Conditions and proof of submission of EC compliance report.

The Committee deliberated on the EC Compliance conditions and other documents submitted by the PP.

17. The PP has submitted that R & R Plan has already been implemented.

Observation of EAC: *The Committee previously suggested that PP should provide the complete details of the implementation of R&R plan.*

PP submitted the around 461.57 Ha of land was acquired in 2 phases and fulfilled are the formalities under section 89 of RLR Act, 1956 and paid compensation of land to tune of 57.16 crores.

18. The Project Proponent submitted that the budget earmarked for Environmental Management Plan (EMP) will be ₹ 300 lakh as a capital cost and ₹ 10 lakh as annual recurring cost. Which includes a) Pollution Control 100 Lakh (Capital Cost) and ₹ 5 lakh (Recurring Cost), b) Pollution Monitoring ₹ 10 lakh (Capital Cost) and ₹ 2 lakh (Recurring Cost), c) Occupational Health ₹ 20 Lakh (Capital Cost) and ₹ 1 lakh (Recurring Cost), d) Green Belt 20 Lakh (Capital Cost) and ₹ 1 lakh (Recurring Cost) and e) Others ₹ 150 Lakh (Capital Cost) and ₹ 1 lakh (Recurring Cost). PP submitted that the Environment Management Cell comprises of Chairman/Vice Chairman, Managing Director, Unit Head, Core Committee, EMS Coordinator, Section In charge (all plants).

19. The PP submitted that the total budget for occupational health plan shall be Rs 20 lakh Capital Cost with recurring annual cost is Rs 1 Lakh. PP submitted that activities to be under taken under occupational health program includes i) occupational health training of staff to ensure mines and factory rules are strictly followed, ii) Pre/Periodical Medical Examination of Company and contractor employee, iii) Continues development and maintenance of safe work practices, iv) monitoring of workplace hygiene & housekeeping to avoid any risk, v) focus on operational and occupational hazards and risks, vi) awareness about preventive health measures, vii) availability of occupational experts at all times, and viii) first aid training programme etc..

In addition to above PP submitted that WCL has 10 beds well equipped air conditioned hospital cum occupational health Centre not only for taking care of needs of employees but for residents of surrounding villages since November 2014. This hospital is equipped with all modern medical instruments and equipment like

X-Ray machine, ECG machine, glucometer, hospital beds, oxygen cylinders, air conditioners etc. along with all necessary furniture and fixtures. All medicines and emergency medicines are available in Hospital. WCL has deployed one Senior Medical Officer, one physician, one gynecologist and one Physiotherapist (Visiting Doctor), four Male Staff Nurse, One X-ray Technician and One Laboratory Technician. WCL hospital is also having an air conditioned ambulance van with all essential medicine available round the clock with St. John Ambulance Trained First Aid Certificate holder drivers for use of employees & workmen in case of need. Hospital is also carrying out the clinical laboratory investigation 30 nos.- (including X Ray, ECG, Audiometry Spirometry. Health Awareness program & Free consultancy camp are being organize periodically. Pre/Periodical Medical Examination of Company and Contractor employees are being carried out regularly at Occupational Health Centre cum Hospital. Free weekly consultancy service with physiotherapist is being provided at fully equip Physiotherapy room. Blood donation camp is being organized every year and average 500 units of Blood are being collected and supplied to Blood bank of Govt. hospital, Nimbaheera. WCL has also organized 6 First Aid training program for 152 candidates.

20. Consultant submitted an undertaking that EIA Coordinator (EC) has gone through the report and the consultant organization shall be fully accountable for any misleading information. It is certified that no unethical practice, plagiarism involved in carrying out the work and eternal data/text has not been used without proper acknowledgment while preparing this EIA Report. PP also submitted an undertaking by the way of an affidavit to comply with all statutory requirement and Common Cause Judgment dated 2.08.2017. PP also undertake that the data and information given in the application and enclosures are true to best of his knowledge and belief and he is aware that if any part of the data and information found to be false or misleading at any stage, and in case of any violation of statutory requirement, the project will be rejected and clearance given, if any to the project will be revoked at our risk and cost. PP submitted that past production details and the production is well within the EC Capacity.

21. The Project Proponent submitted that the total project cost shall be ₹ 30 Crore and shall give direct employment to 48 persons during operation and this project will also generate indirect employment to a considerable number of families. At present about 123 workers are engaged in the mining activities and for carrying out the proposed expansion, further employment will be provided to 48 people. Total manpower will be 171.

22. Based on the discussion held and document submitted the Committee **recommended** the proposal of M/s Wonder Cement Limited for expansion of

limestone production from 9.10 MTPA to 14.10 MTPA (14.53 Million TPA of ROM) from Bhattkotari Limestone Mine (ML NO. 22/2007; ML Area 740.93 Ha) located at Villages – Bhattkotari, Lasravan, Phalwa and Rasulpura, Tehsil– Nimbahera, District– Chittorgarh, Rajasthan. In addition to Standard EC Conditions as per Ministry’s O.M. No. 22-34/2018-IA.III dated 08.01.2019, the Committee also prescribed the following specific conditions for this project:

- a) The **total excavation** from mine should not be more than 21.950 Million Tonne (Limestone 14.53 Million TPA (ROM) + 7.397 Million TPA waste/top soils) and from 2024-25 onwards it should not be more than 15.057 million TPA (Limestone 14.53 Million TPA (ROM) + 0.527 Million TPA waste/top soils).
- b) **Backfilling** @ 2.695 million TPA shall be commenced from 2038-39 onwards but PP should explore the possibility of early & simultaneous backfilling.
- c) **Water requirement** from the project should be met from recycled water or water collected in the mine pit. Water from the bore-wells should not be used for this project. PP shall modify the rain harvesting structures including charcoal filtration.
- d) **Plantation** in the next 5 years (2019-20 to 2023-24) shall not be less than 2500 saplings/Ha/annum. Budget earmarked for the same is Rs 10 Lakh/annum. PP submitted that till end of life total 280046 saplings will be planted covering 121 Ha inside the mining lease (43.22 ha along 7.5 m barrier & non-mineralized zone, 54.0 Ha over upper two mined out bench and 23.78 Ha on back filled dump area) and the budget proposed for the same is 11.19 Crores. In addition to this total 30740 saplings protected with tree guards shall be planted outside the mining lease area in the next 5 years and a budget earmarked for the same is Rs 99.36 Lakh. PP shall install the drip irrigation system for the plantation. PP shall engage expert agency for developing green belt inside & outside the plant mines with a vision to convert plantation into forest. The budget earmarked for the plantation shall be Rs 10 Lakh/annum and Rs 99.36 Lakh (@ minimum Rs 19.872/annum for five years) shall be kept in separate bank account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

- e) There are three schedule-1 species viz. peacock, Leopard and Indian wolf is present in the study area and PP should implement the **conservation plan** as per MoU signed with the State Government. The amount proposed for conservation plan is Rs 222.22 Lakh @ Rs 22 Lakh/annum and the same shall be deposited in the government account as per communication received from State Government. PP shall submit the requisite documents to Regional Office of MoEF&CC.
- f) The budget earmarked for **Environmental Management Plan (EMP)** will be ₹ 300 lakh as a capital cost and ₹ 10 lakh as annual recurring cost. Which includes a) Pollution Control 100 Lakh (Capital Cost) and ₹ 5 lakh (Recurring Cost), b) Pollution Monitoring ₹ 10 lakh (Capital Cost) and ₹ 2 lakh (Recurring Cost), c) Occupational Health ₹ 20 Lakh (Capital Cost) and ₹ 1 lakh (Recurring Cost), d) Green Belt 20 Lakh (Capital Cost) and ₹ 1 lakh (Recurring Cost) and e) Others ₹ 150 Lakh (Capital Cost) and ₹ 1 lakh (Recurring Cost). PP submitted that the Environment Management Cell comprises of Chairman/Vice Chairman, Managing Director, Unit Head, Core Committee, EMS Coordinator, Section In charge (all plants). Monitoring shall be carried as per proposal submitted by PP viz **a) Air Quality** [i) ambient air quality monitoring (6 locations; twice in a week), ii) Stack Monitoring in existing crushers and proposed crusher (once in a month), fugitive dust sampling at work zone as per CPCB & RSPCB (once in 3 months)], **b) Metrological Data** Cement Plant (daily), **c) Water & Waste Water Quality** [i) effluent/industrial waste water (once in a month), ii) Ground Water (13 locations ; once in a quarter), iii) surface water (8 locations; half yearly), water level monitoring in wells or piezometers (quarterly)] , **d) Noise Quality** (4 location around mining lease & high noise area and 7 location outside mining lease ; Quarterly), **e) Soil Quality** (4-6 location in core & buffer zone; yearly). PPP also submitted the monitoring details viz **a) Air Quality** [i) ambient air quality monitoring (6 locations; twice in a week), ii) Stack Monitoring in existing crushers and proposed crusher (once in a month), fugitive dust sampling at work zone as per CPCB & RSPCB (once in 3 months)], **b) Metrological Data** Cement Plant (daily), **c) Water & Waste Water Quality** [i) effluent/industrial waste water (once in a month), ii) Ground Water (13 locations ; once in a quarter), iii) surface water (8 locations; half yearly), water level monitoring in wells or piezometers (quarterly)] , **d) Noise Quality** (4 location around mining lease & high noise area and 7 location outside mining lease ; Quarterly), **e) Soil Quality** (4-6 location in core & buffer zone; yearly). The amount (except occupational health) proposed under this head should be kept in a separate bank account and should be audited annually. The PP should annually submit

the audited statement and detailed environment monitoring report along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, sampling reports, photographs & Geo-location of the infrastructures/facilities developed, details of persons engaged in Environment Management Cell etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

- g) PP shall establish the **Environment Management Cell** separately for each plant/mines and engage sufficient number of qualified staff for the implementation of Environmental Clearance Conditions and other statutory requirements.
- h) Budget for **occupational health plan** shall be Rs 20 lakh Capital Cost with recurring annual cost is Rs 1 Lakh. PP submitted that activities to be under taken under occupational health program includes i) occupational health training of staff to ensure mines and factory rules are strictly followed, ii) Pre/Periodical Medical Examination of Company and contractor employee, iii) Continues development and maintenance of safe work practices, iv) monitoring of workplace hygiene & housekeeping to avoid any risk, v) focus on operational and occupational hazards and risks, vi) awareness about preventive health measures, vii) availability of occupational experts at all times, and viii) first aid training program etc. PP should maintain the record of medical check-up of all the workers (permanent & contractual) in hard and soft form. The amount proposed under this head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and details of implementation of occupational health plan along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, sampling reports, photographs & Geo-location of the infrastructures/facilities developed, details of persons engaged for implementation of occupational health plan to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- i) Budget proposed under **Corporate Environment Responsibility** is Rs 150 Lakh which includes **Activity-1: Natural Resource Management** [a) Ground water recharge by deepening of village ponds in village Bhatkotri & Rasulpura (Rs 7.5 Lakh @ 1.5 lakh/annum from 2019 to 2023)], **Activity-2: Women Empowerment** [a) To provide sanitary vending machines in Govt Girls Schools, Village Govt Health Centers and SHG Groups, b) Strengthening of Women SHG & support in entrepreneurship to women in Phalwa & Rasulpura, c) support of BPL community for marriage of girls in Rasulpura & Bhatkotri, d) scholarship to girls for higher education in Lasrawan & Bhatkotri

(Rs 37.5 Lakh @ 7.5 lakh/annum from 2019 to 2023)], **Activity-3: Health** [a) Facilities to under privileged group for treatment of critical diseases like cancer/heart surgery etc. in village of Bhatkotri, Rasulpura & Lasrawan, b) Providing Medical equipment/furniture to Health Centers as per requirement in village Phalwa & Rasulpura (Rs 20.0 Lakh @ 4.0 lakh/annum from 2019 to 2023)], **Activity-4: Sanitation** [a) Renovation of Govt School Toilets in village Phalwa, Lasrawan & Rasulpura, b) Construction of household toilets in village Lasrawan (Rs 20.0 Lakh @ 4.0 lakh/annum from 2019 to 2023)], **Activity-5: Agriculture** [a) support to farmers for construction of pits for organic compost in Bhatkotri & Rasulpura , b) Creation of Seed Banks , c) Agriculture awareness programmes (Rs 25.0 Lakh @ 5.0 lakh/annum from 2019 to 2023)], **Activity-6: Infrastructure** [a) Installation & maintenance of LED street lights in villages as per requirement in Bhatkotri Lasrawan & Phalwa village (Rs 15.0 Lakh @ 3.0 lakh/annum from 2019 to 2023)], **Activity-7: Skill Development & Employment** [a) To provide online library in Govt School for referring course syllabus, employment coaching exams etc. b) cottage product making training to women SHG in all surrounding villages (Rs 25.0 Lakh @ 5.0 lakh/annum from 2019 to 2023). In case the amount proposed under CER is left unspent than the same should not be diverted and kept for CER activities beyond 2023. At the end of life of mine if any amount remains unspent than the same should be spent in consultation with local administrations for the development of nearby villages. The amount proposed under this head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and details of implementation of CER activities along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, , photographs & Geo-location of the infrastructures/facilities developed, etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

- j) Activities which come out from need based survey of PAPs and action plan proposed to support the project affected families, viz. i) revenue oriented skill development initiatives for PAF's & PAP's sustainability, ii) construction of village roads with solar street light, iii) support for sanitation improvement in nearby villages, iv) training to farmers for organic farming & income generation, v) strengthening primary education, vi) provision for safe drinking water, vii) establishing competitive centers for enhancing capacities and knowledge of the job aspirants, which may lead to absorption in government and major private industries as well. PP also submitted an action plan to support project affected families which includes i) priority will be given to all the eligible PAFs in M/s WCL rolls and also in MCL's authorized

contractors, ii) initiating the revenue oriented initiatives to all the interested PAFs and PAPs for their sustainability, iii) establishing competitive coaching centers, so as to encourage the employability to all the interested candidates in the affected villages, which enhance the scope to get better job opportunities in both government and corporate sector as well, iv) creation of seed capital to women self-help groups formed with PAFs at the affected villages, v) Forming and strengthening the Women federation with PAFs and ensure that, the federation function as local level bank to serve the needy women community, vi) Strengthening of Women SHG & support in entrepreneurship to women, vii) construction of drainage facilities in all the affected villages through community participation, viii) support to villagers for organizing sport tournaments or religious programs , ix) plantation in nearby villages with tree guards or as per requirement of villagers, x) introducing the teaching volunteers in all the needy primary schools to strengthening the primary education at the affected villages, and xi) establishing safe drinking water facilities in all the affected villages. The same needs to be completed from CSR budget if not included in CER budget within 3 years or grant of EC.

- k) PP shall engage an expert agency to identify the area which has maximum possibility to be get impacted due to mining & cement plant activity. After ascertaining the area, the PP shall annually monitor the crop productivity of the identified area. PP shall provide the **crop insurance** for agricultural field falling in this area and in case of crop damage take immediate measure to mitigate the same and also ensure to pay crop loss compensation.
- l) As suggested by EAC, PP shall collect the plastic waste within 10 KM of the mining & plant site and burn the same in the Kiln.

2.3 Production of 2.0 lakh TPA (ROM) of limestone by M/s Saurashtra Chemicals, located at village Zinzarka-Boricha, Tehsil & District Porbanda, Gujarat (24.28ha) File no: J-11015/155/2014-IA.II(M); Proposal - IA/GJ/MIN/23323/2014 Consultant:-Mantec Consultants Pvt. Ltd. – Consideration of EC

1. The proposal of **M/s Saurashtra Chemicals Division of Nirma Limited** is for mining of Limestone with production capacity of 2,00,000 TPA from the mine lease of 24.28 ha located at Village: Zinzarka-Boricha, Tehsil: Porbandar, District: Porbandar, Gujarat. The latitude & longitude of the mine lease area lies between 21°44' 56.76" N to 21°45' 14.90" N & 69°40'19.65" E to 69°40'37.74" E

of Survey of India Toposheet No is 41G 941G 10. It is Category "A" project as the mine lease area comes within 1.38 KM area of the Barda Wildlife Sanctuary. The Consultant has presented the details of mine site using KML/SHP files on Google Earth.

2. The proposal was considered in EAC Meeting held on 19-20th September, 2016. The Committee after deliberated on information submitted by PP. The proposal was deferred as it was noted that mine lease area falls within very close to the draft Eco-Sensitive Zone (ESZ) of the Barda Wildlife Sanctuary. The ESZ notification provides for prohibiting the mining activity and therefore, the proposal may be deferred till the ESZ notification is finalized.
3. PP now submitted that the Ministry had issued the Final Notification for Eco-Sensitive Zone (ESZ) of the Barda Wildlife Sanctuary vide S.O No. 1365 (E) dated 28.04.2017. As per the final notification the proposed mine is outside the Barda Wildlife Sanctuary.
4. The Proposal was again considered in the EAC Meeting held on 24th October, 2017. The KML file was verified on DSS and Google Earth, and it has found that ML area is outside the Eco-Sensitive Zone (ESZ) of the Barda Wildlife Sanctuary.
5. PP also submitted a Map duly authenticated by Chief Conservator of Forest, Porbandar Division, showing that the distance of the Mining lease from Barda Wildlife Sanctuary is 1.3 KM. The Committee observed that a road is passing through the mining lease and was of the view that no mining operation should be carried out within 50 meters on the both sides of the road. The PP submitted that renewal of mining lease is awaited. Based on the discussion held and document submitted by the PP the Committee deferred the proposal and was of the view that proposal may be re-considered only after PP submits the renewed Mining lease deed.
6. PP submitted the information online in PARIVESH portal on 27 Nov 2019 accordingly the proposal was appraised in the EAC meeting held during 19-20, December, 2019.
7. PP submitted letter no MCR/102019/1247/CHH, dated 03.06.2019 obtained from Industries and Mine Department, Government of Gujarat stating that the lease period extension in terms of Section 8(A)(5) of the MMDR(Amendment) Act, 2015 of BorichaZinzarka Limestone Mining Lease bearing 24.28 Ha in survey No. 22/2 P of village-Boricha-Zinzarka, Taluka-Porbandar, District-Porbandar granted to Saurashtra Chemicals, is under consideration of the State Government and certified that the period of the said mining lease is liable to be

extended up to 07/06/2038 as per the provisions made under section 8A(5) of the MMDR Amendment Act, 2015.

8. PP didn't submitted letter from the PCCF stating that the mine lease area is falling outside the Eco-Sensitive Zone (ESZ) of the Barda Wildlife Sanctuary.
9. Based on the discussion held and document submitted the EAC in its meeting held on 19-20 December, 2019 the Committee observed the following deficiencies and **deferred** the proposal for want of the following information:
 - I. PP need to submit letter from PCCF stating that the mine lease area is falling outside the Eco-Sensitive Zone (ESZ) of the Barda Wildlife Sanctuary. Along with a Map duly authenticated by Chief Conservator of Forest, Porbandar Division, showing that the distance of the Mining lease from Barda Wildlife Sanctuary is 1.3 KM.
 - II. PP also needs to collect the one-month fresh base line data and Revalidate with the already collected Baseline data and the results of the same may submit.
 - III. Revised CER along with the break up need to be submit
 - IV. Total Excavation as per the ROM and waste generation, quantity of Top soil, IB/OB etc details may submit
 - V. Undertaking by way of Affidavit in compliance to the Ministry' OM dated 30.05.2018.

2.4: Expansion in Soapstone production of Chanavada Soapstone Mine (ML Area 83.491; M.L. No. 09/2000) of M/s. Krishna Miners and Traders from 15000 to 200000 TPA located near Village –Chanavada, Tehsil – Girwa, District – Udaipur, Rajasthan

[File No J-11015/317/2015-IA. II (M); Proposal No. IA/RJ/MIN/63433/2015; Agenda Item 2.4; Consultant: Udaipur MinTech Pvt. Ltd]-Expansion in EC Regarding

The proposal of M/s Krishna Miners Traders is for Enhancement of production capacity from 15,000 to 2,00,000 TPA 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 Topo-sheet No. 45 H/1.

2. Being a Category 'A' project as per EIA Notification dated 14th September, 2006 at that time of application, Project Proponent (PP) applied for ToR on

26.08.2015 vide proposal No **IA/RJ/MIN/30336/2015** and submitted Form-1 & PFR. The Proposal for TOR was considered by the EAC in its meeting held during September 24-25, 2015 wherein the Committee recommended the proposal subject to seeking details of court cases and production details since 2007 to check violation, if any. ToR letter was issued on 01.01.2016 after receipt of requisite information from PP.

3. The PP vide proposal No IA/RJ/MIN/63433/2015 dated 24.03.2017 applied for Environmental Clearance and submitted EIA/EMP Report after conducting public hearing. The proposal for EC was considered in EAC meeting held during April 27-28, 2017, February 26-27, 2018, and August 23-24, 2018 wherein the Committee deferred the proposal for want of requisite information. The PP submitted information 28.11.2017, 20.12.2017, 7.02.2018, 24.07.2018 and on 22.11.2019. The proposal is now placed in EAC meeting held during 19-20 December, 2019. During the meeting the Committee deliberated on the following information so far submitted by the PP.
4. PP submitted that the Environmental Clearance was previously granted by MoEF, New Delhi vide letter no. J11015/250/2005-IA. II (M) dt. 21/02/2007.
5. PP submitted that the Mining lease was originally granted over an area of 224.880 Ha for a period of 20 years on 31.12.1970. The mining lease was renewed for a period of 10 years from 31.12.90 to 30.12.2000, vide Govt. order No. P-5 (53) Khan/Group-2/91 dated 30.07.92 and executed on 28.12.92 and registered on 7.01.93. The partial surrender of 141.389 Ha lease area was accepted by SME, Udaipur Circle, Udaipur order No. SME/UD-Circle/CC-Udai/F-115/76/ML-13/89/455 dated 08.05.2000 & 24.08.2000. The rider agreement was executed on 20.02.2000. The 2nd renewal of mining lease was sanctioned, vide Govt. Order No. P-5 (13) Khan/Group- 2/2001 dated 10.10.2001 for area of 83.491 Ha for period of 31.12.2000 to 20.09.2019 & the same was extended till 31.03.2030 as per supplementary lease deed executed on 21.08.2015. The mining lease area 83.491 Ha comprises of 58.216 Ha Govt. Land, 24.63 Ha Diverted Forest Land and 0.645 Ha Agriculture land.
6. The Mining Plan with mine closure plan was approved by R.C.M., I.B.M. Udaipur vide letter no. 682(23) (736)/IOMCCM(N)UDAI dated 10.03.2011. The Scheme of Mining was approved by S.M.E., DMG, Udaipur vide letter no. SME/UD-Cir/Scheme/UDR/ Major/F-27 /14/442 dated 13.05.2015. PP reported that the mining operation are being done by opencast mechanized method by drilling and blasting and mineral reserves have been estimated by cross - sectional area method. The Quartzite in between veins shall be drilled by

jackhammer with tractor mounted compressor and blasted. The deep hole drilling & blasting is being done for making benches. It is proposed to develop benches in central quarry having dimension of 6m in width and 6m in height having 80° of slope. At the end of mine life, 15.0 Ha from 45.0 Ha remaining virgin land is proposed to be planted. The authenticated year wise production details from Department of Mines and Geology have been obtained (till 2014-15) and the same were found to be less than 15,000 TPA. About 24, 37,103 MT of waste will be generated up to the mining plan period which will be dumped in mine lease area & no waste will dumped outside the lease area.

Observation of EAC: During EAC meeting held on February 26-27, 2018 Committee observed that proposal is for enhancement of soapstone production from 15,000 TPA to 2, 00,000 TPA whereas in the Modified Mining Plan the total excavation is shown to the tune of 9,40,000 m³ (approx.).

PP submitted that 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 61,15,807 tonnes and 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 of schist & Quartzite and further the waste to be generated from mining operation may also have Quartzite and schist which are also saleable in market.

7. The Committee observed that TOR/PH is only for Soapstone mineral, however now PP want to add more mineral. The Committee asked 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 and deferred the proposal. The Ministry vide letter dated 8th June 2018 has communicated the recommendation of the EAC and also requested PP to apply fresh application for TOR for all the mineral with valid documents.
8. PP vide letter dated 16.07.2018 submitted that process of inclusion of other mineral in lease agreement with Department of Mines and Geology is in progress and will apply for EC after completion of the all the formalities. PP also requested to consider the proposal of EC for enhancement of production from 15000 TPA to 2 Lakhs TPA of Soapstone for which TOR was granted, and EIA/EMP and Public Hearing was conducted. The Committee observed that the Scheme of Mining which was placed in public hearing was approved by S.M.E., DMG, Udaipur vide letter no. SME/UD-Cir/Scheme/UDR/ Major/F-27 /14/442

dated 13.05.2015 has mentioned that maximum waste is 7.31 Lakh Tonne and soapstone production will be around 2.0 Lakh TPA. Thus total excavation comes out to be 9.31 Lakh Tonne. Further in the modified mining scheme the material handling is mentioned as 2.03 TPA Mineral and 6.33 TPA of waste.

9. **The Committee is of the view that as the PP has calculated the impact considering the total excavation from the mine as 6.40 Lakh TPA for production of 2.0 Lakh TPA of Soapstone, then same shall be considered for grant of EC. PP shall dispatch only Soapstone from this mines and other minerals & waste shall be kept inside the mining lease till the time PP obtains the lease and other statutory clearance (including EC) for the dispatch of the other minerals.**

10. There is no Wildlife Sanctuary, National Park, Biosphere Reserves, Wildlife Corridors, Tiger/elephant reserves etc. within 10 km radius of the mine lease boundary. The Forest clearance was obtained for 24.63 Ha of forest land vide letter no. 8-91/97-FC dated 21.09.99 which is valid for 20 years up to 20.09.2019. PP submitted that they have already applied for extension of validity of Forest Clearance and as per communication received from State Govt. vide letter dated 7.02.2018 already submitted NPV amount of Rs 1.54 Crore on 31.03.2018.

Observation of EAC: Committee observed that FC Division vide its communication No. 11-51/2015-FC dated 1.04.2015 made the period of validity of approval accorded under section-2 of FC Act deemed to have been extended up to a period co-terminus with the period of mining lease subject to realization of NPV by state government and in the instant case based on the communication received from State Government PP already paid the NPV on 31.03.2018.

11. PP submitted the authenticated list of fauna and reported that there is no Schedule-1 species is found in the core and buffer zone of mine lease area.

12. PP reported that there is no court case/ litigation pending against the project.

13. The baseline environmental monitoring was carried out during winter season i.e. October, 2015 to December, 2015. PP reported that the monitoring results of ambient air, surface water, soil, ambient noise and ground water observed to be within the respective prescribed limits. During the meeting PP submitted the air quality modeling considering the total excavation as 6.40 Lakh TPA and the resultant GLC value is well within the NASSQ limit.

- 14.** PP has reported that total water requirement will be 10.0 KLD with 6.0 KLD for Dust Suppression, 2.5 KLD for Drinking and 1.5 KLD for Green belt which will be sourced from dug well and water tankers. PP also reported that the mine working will not intersect groundwater table as ultimate depth of mining will be 450 mRL & and water table of area is 425 mRL from ground water. Further, there is seasonal nallha flowing in the E-W direction of mining lease.

Observation of EAC: The Committee is of the view that PP should not disturb the seasonal Nalla and water should be sourced from legal sources. Although PP applied for renewal of NOC for withdrawal of ground water but no use of ground water shall be permitted unless PP obtained permission from CGWA and MoEF&CC.

- 15.** Public hearing for the project was conducted on 31.05.2016 at village Chanavada, Tehsil-Girwa, District-Udaipur, Rajasthan. The advertisement for public hearing was published on 27.04.2016 in "Danik Bhaskar" & "Rajasthan Patrika" on 27.04.2016. Public Hearing was conducted under the chairmanship of Shri Chhoga Ram Devasi (Additional District Collector) and in presence of Regional Officer (Dr. B. R. Panwar), Rajasthan State Pollution Control Board. About 40 persons made their attendance in the public hearing. During the public hearing people supported the project, the issue raised in PH was related to employment, health impact of soapstone mining, there were suggestion for plantation, construction of garland drains, and rain water harvesting system. The PP agreed with the suggestion made during public hearing and submitted that employment priority will be given to local people, salary will be given as per norms, social development work will be done in nearby villages and budget of Rs 6.0 Lakh/annum is proposed under CSR.
- 16.** The activity proposed under CSR includes i) Rs 1.5 Lakh for providing study material and uniform to the school students in nearby villages, ii) Rs 1.0 Lakh for skill development program for unemployment youth and school dropout, iii) Rs 1.5 Lakh for free medical camps and distribution of medicine in nearby villages, iv) Rs 2.0 Lakh to provide clean potable drinking water, and repairing of road and other development program in villages.

The Committee observed that total project cost as reported by PP is Rs 5.0 Crore and CER cost as per Ministry's O.M No 22-65/2017-IA.III dated 1.05.2018 for brownfield projects comes out to be Rs 5.0 Lakh @ 1% of project cost. In addition to CSR, PP shall spend Rs 5.0 lakh under CER activities which should include distributing sanitary napkins in nearby villages & schools, construction of rain water harvesting structures, solar lights in the nearby villages. The amount finalized under CER shall be spent within 3 years of grant of EC.

- 17.** PP submitted that to avoid adverse effect on the health of workers due to dust, heat and noise, sufficient measures will be taken which include provision of i) rest shelters for mine workers with amenities like drinking water, washrooms etc. ii) provision of personal protective device to the workers, iii) rotation of work in the noisy area, iv) dust suppression on haul road, and v) first aid facilities in the mining area. In addition to this health status of workers in mine shall be regularly monitored under an occupational surveillance program. PP submitted that a budget of Rs 15.0 lakh (Capital) and Rs 3.0 Lakh (recurring) is earmarked for occupational health.

Observation of EAC: Considering the health problems related with silica laden dust generation, the Committee in its meeting held during August 23-24, 2018 asked the PP to submit at least five samples from soapstone lot and over burden to a NABL accredited laboratory for determination of free silica percentage in the samples. The lab must have trained technician in analyses and distinguishing crystalline silica crystals by X-ray diffraction; (iii) Depending up on the present of free/crystalline silica proponent will present a plan for (a) Exposure control; (b) Hazard communication on free silica; (c) Dust control measures; (d) Medical surveillance; (e) record keeping (f) Insurance plan for compensating workers.

PP in its reply dated 22.11.2019 submitted the test report of Noida Testing Laboratories (NABL Accredited Lab) as per which the % of free silica in soapstone samples varies from 0.2 to 0.8% and in overburden samples varies from 0.3 to 0.8%. PP submitted that % of free silica is less than 1% and they have already adopted the dust control measures viz. i) Personal Protective equipment (PPE) are used by the workers exposed in the dusty environment. Air monitoring is done every six months to monitor the air borne dust concentration in the air, b) The workers are educated about the occupational diseases caused from air borne dust by the Environmental Engineer. We arrange health camp at mines site to protect workers from occupational diseases, c) We do water sprinkling over roads and dust generating places. The working face is also sprinkled by water before the start of material handling by excavator, d) wet drilling is used to prevent dust from getting air borne, e) Plantation has been done along with roads and old waste dumps to check the propagation of air borne dust particles, f) The workers are periodically examined and the record is kept. PP also submitted the specimen copy of Form 'O' in which the worker's medical record is kept, ii) Records of medical and insurance of workers are kept and these are monitored in our time bound program and h) The insurance of mine workers was done on 12.10.2018 and will be valid till 11.10.2019. PP also revised the budget under

this head from Rs 15.0 lakh (Capital) and Rs 3.0 Lakh (recurring) to Rs 20.0 Lakh (Capital) and Rs 2.0 Lakh (recurring).

The Committee recommended that PP should renew the insurance of all the workers and budget under this head should be Rs 20.0 Lakh (Capital) and Rs 3.0 Lakh (recurring).

- 18.** PP submitted that at the end of life of mine total 50250 saplings shall be planted covering 50.77 Ha area which includes [1.91 ha on statutory barrier, 25.65 Ha on virgin land, 5.0 ha on dumps, 2.73 Ha mined out benches, 15.48 ha on backfilled area. PP also proposed a budget of Rs 7.5 Lakh (Capital) and Rs 1.5 Lakh (recurring) for plantation activity.

Observation of EAC: The Committee in its meeting held during August 23-24, 2018 found that green belt development/ plantation was in-adequate; and asked the PP to first develop the adequate green belt in the mine lease boundary afterwards the proposal may be considered for further appraisal. PP in its reply submitted on 22.11.2019 mentioned that they have developed the sufficient plantation along the lease boundary and also submitted that plantation plan for next 3 years wherein it has proposed to plant 15000 saplings (@5000 saplings/year) in next 3 years covering 15 Ha area. PP also submitted till 2018 around 10606 saplings has already been planted covering 12.607 ha area. PP also submitted that in next 3 years total 33% of the mining lease area will be covered in plantation/green belt. PP also increased the budget under plantation from Rs 7.5 Lakh (Capital) and Rs 1.5 Lakh (recurring) to Rs 19.12 Lakh (Capital) and Rs 2.5 Lakh (recurring). The Committee also observed that previously PP submitted that 50250 saplings shall be planted covering 50.77 Ha but now the same is reduced to 45615 which is not acceptable and PP should plant at least 50250 saplings over the life of mines.

The Committee agreed with the submission of PP and is of the view that an additional specific conditions viz. PP shall plant at least 15000 saplings (@5000 saplings/year) in next 3 years covering 15 Ha area and within 3 years 33% of mining lease area shall be covered under plantation & green belt. PP shall plant atleast 50250 saplings covering 50.77 Ha over the life of mine.

- 19.** PP initially submitted that amount proposed under EMP will be Rs 60 Lakh (Capital) and Rs 12 Lakh (recurring). During the meeting PP submitted the revised budget for EMP as Rs 100.54 Lakh (Capital) and Rs 10.31 Lakh (recurring) which includes i) Rs 31.42 Lakh (Capital) and Rs 2.81 Lakh (recurring) for Pollution Control (water sprinkling, construction of garland drain, retaining wall etc.) , ii) Rs 20.0 Lakh (Capital) and Rs 2.0Lakh

(recurring) for Pollution Monitoring (air, water, noise & soil twice a year) , iii) Rs 20.0 Lakh (Capital) and Rs 2.0 Lakh (recurring) for Occupational Health (insurance , PPE, vocational training etc. once a year), iv) Rs 19.12 Lakh (Capital) and Rs 2.5 Lakh (recurring) for Plantation , v) Rs 10.0 Lakh (Capital) and Rs 1.0 Lakh (recurring) for Miscellaneous (Barbed Wire fencing, etc). PP submitted that total 3700 meters of garland drain @ 330 meter/year will be constructed, total 5000 meters of barbed wire fencing @ 450 mts/year will be erected, total 330 sumps will be constructed @ 30 nos/year and total 30 nos of settling tanks @ 3 nos/year will be constructed. PP submitted that daily water spraying will be done on 2.0 KM kacha road and 6.0 KM metaled road and one water tanker (tractor mounted) @ cost of Rs 6.50 Lakh (capital) & Rs 0.90 Lakh (recurring) will be engaged for the same. PP submitted that budget of Rs 6.0 Lakh(Capital) & Rs 0.5 Lakh (recurring) is earmarked for construction/maintenance of haulage road. Under plantation PP proposed to plant 45615 saplings covering 50.77 ha area.

Observation of EAC: The Committee is of the view that previously PP submitted that 50250 saplings shall be planted covering 50.77 Ha but now the same is reduced to 45615 which is not acceptable and PP should plant at least 50250 saplings over the life of mines.

20. PP submitted the inspection report submitted by Regional Office, Lucknow vide Lr No IV/Env/R/Mine-344/500/2007/421 dated 11.01.2017.

Observation of EAC: The Committee observed that there is no major non-compliance reported in the RO, Lucknow Report.

21. PP submitted the past production details since 1977-78 to 2016-17. The production capacity was 2564 Tonnes in year 1993-94 and the same is increased to 5905 in 1994-95 and thus require prior EC. 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 attracts provision of section 21(5) as per Common Cause Judgement dated 2.08.2017. PP did not increase the production capacity after grant of EC on 21.02.2007 and thus there is no violation of S.O. 804(E) dated 14.03.2017.

22. PP has submitted an undertaking by the way of affidavit on Non-Judicial Stamp Paper to comply with all the statutory requirement and judgment of Hon'ble Supreme Court dated 2nd August,2017. The consultant also submitted an undertaking that the data and the information given in EIA/EMP report and enclosure are true to best of his knowledge and belief and project will be

rejected and clearance if given will be revoked if any of the information is found misleading at any stage.

- 23.** PP submitted that estimated project cost will be Rs 500 Lakh and will provide employment to 30 persons.
24. Based on the document submitted and deliberation, the Committee **recommended the proposal of M/s. Krishna Miners and Traders for grant of Environmental Clearance** for enhancement of Soapstone production capacity from 15,000 to 2,00,000 TPA of Chanavada Soapstone Mine with maximum total excavation 6.40 LTPA [2.0 LTPA Soapstone; 4.40 LTPA waste/OB/IB] from Mine Lease area 83.491 Ha located at Village - Chanavada, Tehsil - Girwa, District - Udaipur, Rajasthan. The Committee also prescribed the following specific conditions & Standard EC Conditions (as per Ministry's O.M. 22-34/2018-IA.III dated 08.01.2019) for this project.
- i. PP shall dispatch only Soapstone from this mine and other minerals & waste shall be kept inside the mining lease till the time PP obtains all the statutory clearance (including EC) for the dispatch of the other minerals.
 - ii. In case of any demand raised by State Government in pursuant to Common Cause Judgement dated 2.08.2017, then State Government of Rajasthan should issue a no objection certificate after the payment of the compensation by the PP and the copy of the same is required to be submitted to the Ministry of Environment Forest & Climate Change.
 - iii. PP should not disturb the seasonal Nalla and water to be used for mining activities should be sourced from legal sources. Although, PP applied for renewal of NOC for withdrawal of ground water but no ground water withdrawal is permitted unless PP obtained permission from CGWA and MoEF&CC. State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission.
 - iv. PP should keep Rs 5.0 Lakh for Corporate Environment Responsibility (CER) which shall be used for distributing sanitary napkins in nearby villages & schools, construction of rain water harvesting structures, providing solar lights in the nearby villages. The amount finalized under CER shall be spent within 3 years of grant of EC. In addition to this PP also earmarked Rs 6.0 Lakh/annum under CSR which includes i) Rs 1.5 Lakh for providing study material and uniform to the school students in nearby villages, ii) Rs 1.0 Lakh for skill development program for unemployment youth and school dropout, iii)

Rs 1.5 Lakh for free medical camps and distribution of medicine in nearby villages, iv) Rs 2.0 Lakh to provide clean potable drinking water, and repairing of road and other development program in villages. The amount proposed under these heads should be kept in a separate bank account and should be audited annually. PP should annually submit the audited statement along with proof of activities carried to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

- v. PP shall plant at least 15000 saplings (@5000 saplings/year) in next 3 years covering 15 Ha area and within 3 years 33% of mining lease area shall be covered under plantation & green belt. PP shall plant atleast 50250 saplings covering 50.77 Ha over the life of mine. The budget earmarked for plantation i.e. Rs 19.12 Lakh (Capital) and Rs 2.5 Lakh (recurring) shall be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- vi. The budget earmarked for implementation of Environmental Management Plan (EMP) will be Rs 100.54 Lakh (Capital) and Rs 10.31 Lakh/annum (Recurring) which includes i) Rs 31.42 Lakh (Capital) and Rs 2.81 Lakh (recurring) for Pollution Control (water sprinkling, construction of garland drain, retaining wall etc.) , ii) Rs 20.0 Lakh (Capital) and Rs 2.0Lakh (recurring) for Pollution Monitoring (air, water, noise & soil twice a year) , iii) Rs 20.0 Lakh (Capital) and Rs 2.0 Lakh (recurring) for Occupational Health (insurance , PPE, vocational training etc. once a year), iv) Rs 19.12 Lakh (Capital) and Rs 2.5 Lakh (recurring) for Plantation , v) Rs 10.0 Lakh (Capital) and Rs 1.0 Lakh (recurring) for Miscellaneous (Barbed Wire fencing, etc). PP submitted that total 3700 meters of garland drain @ 330 meter/year will be constructed, total 5000 meters of barbed wire fencing @ 450 mts/year will be erected, total 330 sumps will be constructed @ 30 nos/year and total 30 nos of settling tanks @ 3 nos/year will be constructed. PP submitted that daily water spraying will be done on 2.0 KM kacha road and 6.0 KM metaled road and one water tanker (tractor mounted) @ cost of Rs 6.50 Lakh (capital) & Rs 0.90 Lakh (recurring) will be engaged for the same. PP submitted that budget of Rs 6.0 Lakh(Capital) & Rs 0.5 Lakh (recurring) is earmarked for construction/maintenance of haulage road. Further, the amount proposed under this head (excluding budget for plantation & occupational health for

which separate heads is proposed) should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and detailed report along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, sampling reports, photographs & Geo-location of the infrastructures/facilities developed etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

The budget earmarked for Occupational Surveillance Plan is Rs 15.0 Lakh(Capital) & 3.0 Lakh (recurring) which should be spent for i) Initial Medical Examination (IME) & Periodical Medical Examination (PME)- Once in 3 years -above 45 aged persons and Once in 5 years -below 45 aged person, ii) providing safety equipment/appliance (Helmet, Safety shoe, Reflective jackets, Ear plug/muff, hand gloves, mask and Uniform), iii) providing potable drinking water to workers, iv) Occupational health, Sanitation and hygiene-awareness and training program and v) for insurance of all the workers. Further, the amount proposed under this head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and detailed report along with proof of activities viz. photographs (with geo-location date & time), purchase documents, test reports, photographs & Geo-location of the infrastructures/facilities developed etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

2.5 Sukurangi Chromite Ore Mining Project with enhancement of production capacity of chromite ore from 0.13 MTPA to 0.3 MTPA by M/s. Orissa Corporation Ltd in the mine lease area of 382.709 ha located at village (s) Sukurangi, Saruabli and village limits of Ostapal, Kamarda and Talangi, Teshil - Sukinda, District-Jaipur, Odisha- Consideration of EC.

(FileNo: J-11015/348/2015.IA.II(M);ProposalNo:IA/OR/MIN/8903/2007)-

The EC proposal of M/s. Orissa Corporation Ltd is for mining of chromite with enhancement in the production of chromite from 0.13 MTPA to 0.3 MTPA in the mine lease area of 382.709 ha. The mine lease area is located at village(s) Sukurangi, Saruabli and village limits of Ostapal, Kamarda and Talangi, TeshilSukinda, District-Jaipur, Odisha. The latitude and longitude of the mine lease area lie between 21002'18.85" N to 21003'46.98" N and 85047'43.77" E to 85049'21.74" E and the Survey of India Toposheet number is 73 G/16.

The proposal was considered in this EAC Meeting held during May 29-30, 2019. Based on the presentation made by PP and the discussion held, the Committee

deferred the proposal and requested the PP to submit additional information for further consideration:

- I. Baseline data were collected during December, 2015- January, 2016, which are 3 years old. Committee asked the PP to submit snap shot of updated baseline data for 15 days and resubmit the revised EIA report with proper control measurement.
- II. Air quality modeling should be redone with proper quantification.
- III. Improvement in compliance to the present conditions of EC dated 18.02.2010 is required, especially green belt development, construction of catch drains and siltation pits of appropriate size all around the working pit, soil, OB and mineral dumbs; implementation status of the various activities under the site specific Wildlife Conservation Plan, dust extraction systems on loading and unloading points, implantation of suitable rainwater harvesting measures on long-term measures and the status of CTE. PP needs to submit the updated compliance report.
- IV. PP needs to submit the capacity details and evaluation of effect of adjoining ETP
- V. PP needs to monitor and submit the result of Cr6+in PM10 and PM2.5 associated particulate matter.
- VI. PP needs to define and submit the road transport completion and risk of accident and their effects.
- VII. PP presented point-wise compliance of stipulated TOR; however, the Committee felt that few of the points have been responded in very generic terms. On specific query the PP was providing necessary information, however, the submission made were not adequately represented. PP needs to submit the compliance of TOR in more specific way.
- VIII. PP submitted that the lease is valid up to 31.03.2020 and the validity has been extended up to 19.09.2030, however, PP not submitted the valid documents for the same. PP needs to submit the valid lease document for above mentioned lease period from the Competent Authority.
- IX. Mine lease area breakage details are not the same in TOR and EC proposal. During TOR appraisal, PP submitted that out of 382.709 ha, 267.210 ha forest land, 88.995 ha agricultural land, 20.377 ha waste land, 1.865 ha road, 0.509 ha under settlement and 3.753 ha under surface water body. Presently, PP submitted 267.210 ha is forest land, 74.599 ha agricultural land, 31.947 ha is Government/Waste/Barren land, 4.691 ha is grazing/community land, 3.753 ha surface water bodies and 0.509 ha other land (settlement). PP needs to submit the clarification as well as the exact mine lease area breakage details. Accordingly, PP needs to submit the revised Form-2.

- X. The past production details are wrongly filled in Form-2, PP needs to submit the revised Form 2 with correct details.
- XI. PP needs to submit updated status of the Revisionary Authority (RA) hearing.
- XII. PP submitted that State Government made OMC as agent to operate the mine vide order letter No. III(G)M, 13/70-5592-MG, dated 20.07.1970 and granted formal lease vide Proceeding No. III (G)- MG-10/78-7924 dated 05.08.1978. PP needs to submit copy of both the order.

PP submitted the information online in PARIVESH portal on 13 Nov 2019 as following:

- I. PP submitted that Additional one Month AAQ was collected in June 2019 and compared with the results of AAQ monitoring data collected during Dec-Jan-Feb 2015 the results submitted as follows as following:

The results when compared with National Ambient Air Quality Standards (NAAQS) of Central Pollution Control Board (CPCB) indicate that air quality is within norms for all of the monitoring locations. AAQ stations A1 and A2 have recorded maximum values of PM10 however the same is within norms the increment may be the AAQ stations are located in the core zone of the mining site. A large number of heavy goods carrier ply in large volume from the mining site. The free silica was noted in the range of 1.5-2.5 $\mu\text{g}/\text{m}^3$ and PM2.5 results have been included from the regular monitoring/analysis was carried out during Dec 2015-Feb 2016. The results of metals show that for Lead, Arsenic and Nickel the observed values are well within the National Ambient Air Quality Standards, 2009. Where as in June 2019 the AAQ values in all the stations are less than that of the data collected during winter season 2015-16. PP also submitted that though the above data cannot be compared as both seasons since the base line data was collected in two different seasons, however, when compared with National Ambient Air Quality Standards (NAAQS) of Central Pollution Control Board (CPCB), the data indicates that air quality during June 2019 is within norms for all of the monitoring locations.

- II. PP submitted the updated EC Compliance report along with the Site Specific Wildlife conservation plan approved by PCCF (WL) for Sukurangi Chromite Mines vide Memo No. 4415/1WL-C-FC -270/09dt. 21.07.2009, with a total financial out lay of Rs. 154 lakhs. OMC has deposited Rs. 98.00 lakhs (vide DD No. 495472 dt. 26.08.2009) towards the approved activities to be taken up by the DFO, Cuttack Division in the zone of influence (10km radius) to be completed within 10 years of operation.

III. The Committee deliberated the same and agreed and suggested to improve the green belt with native species.

IV. PP submitted the capacity details and evaluation of effect of adjoining ETP as follows:

Parameters	Unity	ETP for South Kaliapani Quarry 'D'	ETP for South Kaliapani Quarry 'F'	ETP Treated Water Quality
Capacity	M ³ /hr	1200m ³ /hr Total (Mine Water +Surface Runoff)	300 m ³ /hr Total(mine Water + Surface Runoff)	
		Mine discharge water Parameter	Mine discharge water parameter	
pH	-	7-9	7 to 9	7to8.5
Turbidity	NTU	1 to 10	1 to 10	10 NTU
Turbidity	NTU	1 to 10	1 to 10	10 NTU
Hexavalent Chromium	mg / l	1.2 to 1.8	0.5 to 1	< 0.05 mg/l
Total Chromium	mg / l	1.76	0.5	<2mg/l
Total Suspended Solids	mg / l	26 to 60	50 to 90	<20mg/l
Total Iron	mg / l	0.1 to 0.5	0.1 to 0.5	<3mg/l

VI. PP submitted the issue of the post-accident data for last 5 years in respect of Tamakamangalapur road passing through Sukrangi Chromite Mines. Obtained by the office of the Executive Engineer Panikoili(R&B) division vide letter no 2595 dated 26th 07, 2019.

VII. PP presented the revised point-wise compliance of stipulated TOR adequately specific way.

VIII. PP submitted the revised past production details along with Form-2. PP submitted that the mine was in operation upto Jan, 2010 without prior EC. In

this regard, demand notice was served by DDM, Jajpur Road, Odisha vide letter dated 15.12.2012 for Rs. 26,38,51,073/- against 100271.399 tonnes of chromite ore raised in excess of the approved quantity of mining plan/scheme, EC & OSPCB under section 21(5) of MMDR Act, 1957. The said demand notice raised by DDM, Jajpur was stayed by the Revisional Authority (Mines Tribunal), Ministry of Mines, GoI on 16.12.2015. Subsequently, in pursuance to the judgment of the Hon'ble Supreme Court, revised demand notice has been served by DDM, Jajpur vide letter dated 10.04.2018 of Rs. 3,90,64,416/- against 15474.096 tonnes of chromite ore raised in excess of the approved quantity of EC under section 21(5) of MMDR Act, 1957. The said demand notice raised by DDM, Jajpur was stayed by the Revision Authority (RA), Ministry of Mines on 10.05.2018. Further, Compliance of the MoEFCC's O.M. No. F: 3-50/2017-IA.III (Pt.), dated 30.05.2018 on the judgement of Hon'ble Supreme Court, dated the 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India has also been submitted by OMC. Further the case was further heard before RA on 06.03.2019, wherein it has been directed to the Lessees to file re-joinder and till such period the interim order shall continue. Further, reply of the State Government in the above RA was submitted to the Ministry of Mines vide memo no. 4654/SM, Bhubaneswar dated 03.07.2019.

- IX. PP submitted the revised FORM-II along with the Land ownership details as total mine lease area is 382.709ha out of which 267.210ha is Forest land, 74.599ha is the Private Land, 31.947 ha is the Government land, 0.0 ha Revenue land, 8.953ha is the Other land stating that the Non-Forest land use has been changed from TOR proposal due to change in (Hal/Sabik landrecord), which has been rectified after grant of TOR.
- X. PP submitted the revised past production details along with Form-2.
- XI. PP submitted the State Government made OMC as agent to operate the mine vide order letter No. III(G)M, 13/70-5592-MG, dated 20.07.1970 and granted formal lease vide Proceeding No. III (G)- MG-10/78-7924 dated 05.08.1978.

Based on the discussion held and document submitted the Committee **recommended** the proposal of M/s. Orissa Corporation Ltd with standard EC conditions.

2.6 Expansion in production of Lead-Zinc Ore from 1.08 million TPA to 2.0 million TPA (Total Excavation 2.48 million TPA) & Lead-Zinc Ore Beneficiation from 1.2 million TPA to 2.5 million TPA from Rajpura Dariba Underground Mine (Mining lease area 1142.2106 & ML No.

166/2008), Located at Tehsil Relmagra, Distt- Rajsamand, Rajasthan, by M/s Hindustan Zinc Ltd

File No. J-11015/84/2018-IA. II(M); Proposal No. IA/RJ/MIN/86877/2018); Consultant: Gaurang Environmental Solutions Pvt. Ltd. - EC regarding

The proposal is for the expansion of Rajpura Dariba Lead - Zinc underground mine from 1.08 million TPA to 2.0 million TPA and waste rock generation of 0.48 million TPA (Total Excavation will be 2.48 million TPA). After proposed expansion, production capacity of Beneficiation will be 2.5 million TPA, of which 2.0 million TPA ore will be beneficiated from Rajpura Dariba Mine and 0.5 million TPA from other mines of Hindustan Zinc Ltd. The mine lease area is 1142.2106 ha.

2. The mine is located at Tehsil Relmagra, District Rajsamand, Rajasthan. The Mining Lease area falls in Survey of India Topo-sheet No. 45K/4 and 45L/I and lies between Latitudes 24°55'40.8" N - 24°57'49.0" N and Longitudes 74°06'57.7" E-74°08'41.4" E. The project falls under Schedule 1(a) of mining and is a Category- "A" project as per EIA notification 14th September 2006 and as per S.O. (E) 3977 dated 14.08.2018, as the mining lease area is more than 100 Ha. The proposal includes modification in beneficiation plan, and therefore, PP has also applied under Schedule 2(b) of EIA Notification 2006.
3. The PP vide proposal No IA/RJ/MIN/75956/2018 applied online for grant of ToR on 06.07.2018 and submitted Form-I and Pre-Feasibility Report. The proposal was considered in EAC meeting held on August 23-24, 2018 wherein the Committee recommended for grant of ToR. The ToR was issued vide Lr. No. J-11015/84/2018-IA-II (M) dated 27.09.2018. The PP applied online vide proposal No IA/RJ/MIN/86877 /2018 on 07.01.2019 for grant of EC and submitted EIA/EMP Report after conducting Public Hearing. The Proposal for EC was placed in EAC Meeting held during January, 22-23, 2019 wherein the EAC deferred the proposal for want of requisite information. PP submitted the complete information on 18.11.2019 and the proposal is now placed in EAC meeting held during 19-20 December, 2019. The Committee deliberated on the following information so far submitted by the PP.
4. The PP reported that the Mining lease was granted on 31.03.1970 and registered on 30.05.1970 for a period of 20 years which was subsequently renewed on 16.09.1993 and 12.06.2012 for additional 20 years by Government of Rajasthan under the MMDR 1957. Rajpura Dariba is an underground mine with beneficiation facilities. The commencement of ore

beneficiation took place at RD mine in the year 1982. The PP submitted LR No खअ/राज-11/सीसी/मेजेर/एमएल-166-2008/2481 dated 30.10.2012 issued by State Govt. as per which validity of the mining lease is up to 29th May 2030. The PP submitted letter No dated 1.12.2007 issued by Mining Officer Rajasmand wherein it has mentioned that proposed mining lease does not come under Aravalli Range.

5. The PP submitted that Modified Mining Plan with progressive Mine Closure Plan has been approved vide letter no. 584(4) (3) (1705)/ 2017-RCM-AJM dated 26.09.2017 under MCDR, 1988/MCR 1960. As per the approved modified mining plan submitted by the PP the method of mining shall be Underground Mechanized Mining with drilling & blasting and by adopting Blast Hole Stopping (BHS) & (Vertical Retreat Method (VRM) with filling. The PP submitted that existing working depth of working is varying from 300m in north lode to 620m in main lode. The mine can be approached by 3 accesses from surface viz. i) Main Shaft (Surface to -92mRL) having total depth 611m (501 to -110 mRL) and working depth 593m (501 to -92mRL), ii) Auxiliary Shaft (Surface to 0 mRL) having total depth 509mRL (501 to -8mRL) and working depth 501m (501 to 0 mRL) and iii) Ramp having total Depth 658m (501 to -157mRL). The PP submitted that as on 1.04.2017 the Total Resource is 59.24 million tones and mineable resource is 30.94 million tonne.

Observation of EAC: *Committee previously observed that PP has mentioned that mineable reserved will be 30.94 million Tonne but the ore production proposed from 2019-20 to 2029-30 is 21.25 million tonne. There is a difference of 9.96 million tonne. Thus, PP needs to submit the flow chart clearly shows the material balance from initial excavation till final product & utilization/disposal of waste.*

PP in its reply dated 18.11.2019 submitted the flow chart of the material balance from the mines. Wherein it has mentioned that total ROM will be 2.48 MTPA out of which 2.0 MTPA (remaining 0.48 MTPA is waste) from this mines and 0.5 MTPA from other mines go for treatment in beneficiation plant. Out of the 2.5 MTPA Ore, 0.29 MTPA will be concentrate, 1.375 MTPA is tailing which will be backfilled and 0.84 MTPA will go to trailing dam. Out of 0.48 MTPA of waste, 0.46 MTPA will go to underground voids, 0.02 to waste dumps and 0.02 MTPA for increasing the height of tailing dam. PP submitted that mineable reserves as on 01.04.2018 is 30.94 million Tonne and ore production till 29.0.2030 will be 21.25 Million Tonne as per approved mining plan and the remaining 9.96 million tonne will be mines afterwards.

The Committee is of the view that waste should be utilised within the mining lease area and PP should submit an undertaking in this regard.

PP vide its letter dated UH(RDM)/Env/2019 dated 19.12.2019 submitted an undertaking on a non-judicial stamp paper bearing No IN-DL98689894474614R dated 19.12.2019 wherein it has mentioned that *"Rajpura Dariba underground mine waste rock will be disposed/utilised in the height raising of tailing dam only within the mine lease area. No mine waste rock will be disposed outside the mine lease area."*

6. The PP in EIA Report submitted that total waste generation over the life of mine will be 42.0 Lakh m³ out of which 40.0 Lakh m³ will be disposed in underground voids and remaining 2.0 lakh m³ will be disposed externally. The PP submitted that waste to be utilized for construction of tailing dam will be 2.0 Lakh m³. The PP submitted that existing area of the waste dump is 3 ha and additional 2 ha will be required for waste dumping. Thus, the total area under waste dump will be 5 Ha.

Observation of EAC: *Committee previously observed that a) PP has proposed to use waste for the construction of the tailing dam. The Committee also observed that tailing dam is mainly located outside the mining lease area. Thus, taking of Mineral/waste out of the mining lease would require payment of royalty to the State Government. The PP did not mention anything in this regards that what sort of permission would be required for use of waste for construction of tailing dam which is located outside the mining lease. In addition to this PP should also provide the details of risk/hazards associated with tailing dam, protective/mitigative measure to be adopted, details about the leachate from the tailing dam etc. and b) The PP also proposed additional area for the waste dumping thus PP should clearly show on the map area proposed for the dumping of the waste and protective measure to be adopted and how the dump will be stabilized.*

The PP presented the KML file during the presentation to indicate the location of mine lease/waste dump on Google Earth/ DSS. PP submitted its reply for the above point and vide its letter dated UH(RDM)/Env/2019 dated 19.12.2019 submitted an undertaking on a non-judicial stamp paper bearing No IN-DL98689894474614R dated 19.12.2019 wherein it has mentioned that *"Rajpura Dariba underground mine waste rock will be disposed/utilised in the height raising of tailing dam only within the mine lease area. No mine waste rock will be disposed outside the mine lease area."* Therefore, there is no proposal of taking the waste outside the mining lease area. PP submitted that Indian Institute of Sciences (IISc), Bangalore and M/s Golder (Canada) have been engaged for design, inputs, vetting during construction and periodical audits of Tailing Storage Facility. Hazard identification & Risk assessment of tailing dam has been conducted and being reviewed periodically. PP submitted

that tailing is disposed in tailing dam in slurry form. Solid particles of the tailings are settled, supernatant water is collected and recycled back in the process through reclamation system. Zero Liquid Discharge is maintained from tailing dam. National Environmental Research Institute (NEERI), Nagpur has been engaged for assessment of leaching potential from tailing. PP also submitted that as per assessment of leaching potential of the tailings revealed that various chemicals constituents and heavy metals present in the tailing are not amenable to leaching under worst case scenario as their concentration in leachate did not exceed the stipulated regulatory limits. PP submitted that to strengthen tailing disposal the recommendation of NEERI viz. a) switching over to dry tailing disposal practices and b) appropriate treatment of recycled tailing dam water before reusing it in the process to mitigate the concentration built up of some water quality parameters, shall be implemented.

PP submitted the design of waste dump and informed that additional 2.0 Ha area will be required for future waste dumping. The dump will be developed in 3 benches of 7-meter high. Therefore, the total height of the dump will be maximum 21 meters (from base level of 495 mRL i.e. up to 516 m RL). The overall slope of the dump will be 35°. Total quantity of the waste material in waste dump will be 13.64 Lakh Tonne. PP informed that as protective measures, a) overall slope angle of waste dump is maintained at less than angle of repose of broken material, b) retaining wall is maintained around the waste dump to prevent roll down boulders, c) garland drain of 1m x 1m around waste dump is excavated for collecting the rain water into the storm water pit, and d) plantation shall be done in the inactive area of the waste dump to provide additional stability.

6. The PP submitted that the water is being drawn from the Matrikundia dam in Banas River through a 22 km pipeline up to the plant. It is stated that the plant is being operated since last two years on 100% recycle water and the same is proposed in future also. Fresh water is used only for drinking purpose which is supplied for industrial, colony and nearby villages. For 2.0 MTPA mining & existing beneficiation capacities, additional water of 2200 m³ /day is required for proposed expansion over existing 5800 m³ /day requirement. Thus, the total water requirement shall be 8000 m³/day. Mine dewatering due to intersection will also be consumed in the process. The main source of water will be from Sewage Treatment Plant at Udaipur, Mansi Wakal, and Matrikundia Dam. The PP also submitted the NOC obtained vide Letter No 21-4(315)/WR/CGWA/2008-212 dated 14.07.2009 for mine dewatering wherein it has inter-alia mentioned that "the firm may dewater accumulated ground water in mining pits @ 446.50 m³/day due to seepage and intersection of water table". This approval was valid till 2 years from date of issuance of letter

i.e. up to 13.07.2011. The PP also submitted renewal of NOC obtained vide LR No 21-4(315)/WR/CGWA/2008-1905 dated 16.11.2017 wherein the permission for dewater the accumulated ground water in mining pits @ 446.50 m³/day due to seepage and intersection of water table was provided. This NOC is valid for 3 years i.e. up to 15.11.2020. The PP has also submitted the detailed Hydrogeological Study Conducted by Hydro Geosurvey Consultant Pvt Ltd.

Observation of EAC: *Committee previously observed that PP did not submit any documents regarding permission of CGWA for the period between 14.07.2011 till 15.11.2017. Further, it is not clear from Hydrogeological Studies that who are the experts involved in the preparation of the same. Report is not certified by any Scientists. The permission for dewatering is 446.50 m³/day but as per Hydrogeological studies PP is withdrawing 3145 m³/day. Thus, PP is required to submit the certified Hydrogeological Studies Report. In addition to this PP should submit a flow chart clearly showing the complete water balance.*

Committee also noted that Ministry's O.M No 21-103/2015-IA.III dated 2.11.2018 relate to terms of reference related to ground water withdrawal wherein it has mentioned that following ToR shall be invariably incorporated to address the issues while prescribing ToRs for various developmental projects: (a) In the projects where ground water is proposed as water source, the project proponent shall apply to the Central Ground Water Authority (CGWA)/State Ground Water Authority(SGWA),as the case may be, for obtaining No Objection Certificate (NOC), if applicable, the /MoEF&CC/SEAC may ensure that such application has been made. (b) Approval/permission of CGWA/SGWA shall be obtained before drawing ground water for the project activities. State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission. Committee observed that in the instant case PP has already obtained NOC from CGWA vide LR No 21-4(315)/WR/CGWA/2008-1905 dated 16.11.2017 wherein the permission for dewater the accumulated ground water in mining pits @ 446.50 m³/day due to seepage and intersection of water table was provided. This NOC is valid for 3 years i.e. up to 15.11.2020.

PP in its reply submitted permission of CGWA for the period between 14.07.2011 till 15.11.2017. When renewal application for NOC of ground water due to intersection was submitted to CGWA. CGWA issued a letter No. 21-4 (315)/WR/CGWA/2008 -3744 dated 6th June, 2012 which states that, NOC will be issued only once and renewal is stopped /discontinued and firm may continue to dewater accumulated ground water in the mining pits @446.50 m³/day due to seepage and intersection of water table. So, no renewal application was submitted during the period for RD mine till 15.11.2017. Later on, after issue of the Public Notice by the Chairman, CGWA on 04.01.2017 that all the existing, new, expansion industries/ mining and infrastructure projects extracting ground water should obtain

permission from CGWA and On-line application was filed for RD mine and NOC was obtained on 16.11.2017, which is valid for 3 years till 15.11.2020.

PP submission made in reference to concern raised by EAC on experts involved and Hydrogeological Studies: Hydrogeological study covering hydrological, hydrogeological and estimation of inflow of ground water in the mine due to intersection of ground water table by modelling is prepared by Hydro-Geo Survey Consultant Pvt. Ltd. (HCPL) which is headed by Dr. V.B. Khilnani, Managing Director and Dr. Meeta Khilnani, Executive Director and a NABET approved Functional Area Expert in Hydrology, Ground Water and Water Conservation. Dr. V.B. Khilnani, before starting HCPL, was Superintending Hydrogeologist, with Ground Water Department, Govt. of Rajasthan, Jodhpur. PP submitted the signed copy of Hydrogeological Studies Report. PP submitted that RDM has CGWA permission for dewatering for 446.50 m³/day and online application to withdraw additional water of 2698.50 m³/day was submitted to CGWB vide online application no. 21-4/11267/RJ/MIN/2018 dated 08.09.2018 and approval is under process. PP also submitted the water balance diagram for existing operation and post expansion.

Observation of EAC: *Committee is of the view that the existing NOC is valid till 15.11.2020 and PP has already applied for NOC for additional water requirement. However, PP shall use the ground water only after obtaining approval from CGWA and State Pollution Control Board (SPCB) concern shall not issue Consent to Operate (CTO) for expansion proposal till the project proponent obtains such permission. Zero Liquid Discharge is maintained from tailing dam. In addition to ground water PP should not use surface water without obtaining permission from the concerned authorities. Plant should be operated with 100% recycle water and fresh water shall supplemental including for drinking purpose which is supplied to industrial, residential colony and nearby villages.*

7. PP previously submitted that the mine area is already having 35 % green belt and now it is further suggested that approx. 6000 trees (Local trees species like: Cassia fistula, Delbergiasissoo, Delonixregia, Polyalthialongifolia etc) will be planted in the mine area and nearby villages, to reduce the impact of expansion activities in the surroundings of the existing mine site. PP submitted the species like Sitafal, PeeliKaner, Beshram/Behaya, Gurhal, Jasund, Peepal, Shesham, Bel, Jungle Jalebi, Amaltas, Palas, Dhak, Neem, Ashok, and Arjun shall be planted at the both sides of the mining area & road connecting mining lease. Further, Species like Aam, PeeliKaner, Beshram/Behaya, Peepal, Jamun, Gulmohar, Sahajan, Amaltas, Palas, Dhak, Neem, Ashok, Desi Badam and Arjun shall be planted on the road passing through nearest village.

Observation of EAC: *Committee previously observed that PP did not provide the details of plantation or area under green belt at the conceptual stage. Thus, PP*

needs to submit a map clearly showing the area to be covered under plantation (at an interval of 5 years till the life of mine) with latitude & longitude. It is also to be mentioned here that PP has not shown any increase in green belt area rather proposed for increasing the density of plantation. It has observed that within the mining lease area there is Govt. land and Charagha land, which can be used for development of green belt and afforestation. Thus, PP needs to demarcate the Govt. & Charagha Land on the Satellite Imaginary so as to ascertain the status of land use. In addition to this PP should provide the details of alternative land if any provided in lieu of Charagha Land.

PP submitted that total mining lease area is 1142.2106 Ha out which 578.2006 Ha is private land, 201.34 Ha is Government Land and others - 362.67 Ha. PP has already acquired 554.19 Ha (inside and outside mining lease) of land out of which, area under plantation is 190 Ha (134 Ha inside ML area and 56 Ha outside ML area). PP submitted that approximately 190000 saplings has already been planted. PP in its presentation submitted that during 2018-19 to 2022-23 total 56030 saplings will be planted and it is proposed to plant 50000 (@ 10000 per year from 2018-19 to 2022-23) more saplings for gap filling. PP submitted that out of total acquired land, 34.28% is already under plantation. PP also submitted a map showing the plantation to be carried out during 2018-19 to 2022-23; 2023-24 to 2027-28 and 2028-29 to 2029-30. PP also provide the latitude & longitude wherein the plantation can be carried out within the mining lease and outside the mining lease during 2018-19 to 2022-23 total 56030 saplings will be planted over 43.1 Ha area (cumulative plantation 246030 on 233.1 Ha), during 2023-24 to 2027-2028 total 10660 saplings will be planted on 8.2 Ha area (cumulative plantation 256690 on 241.3 Ha)]. In addition to this, PP submitted that for protection of plantation a) fencing will be provided around the area where mass plantation has been proposed. These fencing will comprise of 1.5 m high and 0.60 m thick stone wall. This will help in preventing cattle from entering in to such area and will protect unauthorized entry of out-side person and fire. Due care will be taken to protect plantation as well as the fencing by the guards to be appointed for supervision, b) During dry spell, water is provided /sprinkled by water tankers provided with 5-10 m long 2" diameter hose pipes, c) Initially fertilizer/ manure will be given to the pits before and after plantation. Thereafter, manuring will be continued on reduced scale till the plant attains growth of 2 to 3 m height. Provision of utilizing bio-manure will also be made within the lease area and d) Man power will be engaged in mulching the soil frequently along with removal of weeds. PP submitted that after expansion budget for plantation/green belt development with drip irrigation system will be Rs 1200.0 Lakh (Capital) & Rs 20.0 Lakh (recurring).

The Committee observed that plantation proposed by PP will have a density of 1063 saplings/ha and still there is a scope of further increasing the density of plantation if no additional land is available. PP has embarked sufficient budget for plantation activity and it is suggested that PP shall engage the expert agency to increase the plantation density to 2500 saplings/ha. PP shall develop an alternative grazing in lieu of grazing land if already used by the PP for mining activity and take NOC from the concerned authorities for use of grazing land for mining purpose.

8. The PP reported that the lease area does not include any forest lands and submitted Lr No पत्र () सर्वे/उक्सं/2018-19/7528 dated 24.09.2018 issued by DFO (Wildlife), Rajsamand. PP also submitted that there is no protected area such as National Park of Wildlife Sanctuary within 10 KM of the mining lease and submitted Lr. No पत्र () सर्वे/उक्सं/2018-19/3424 dated 23.08.2017 issued by DFO (Wildlife), Rajsamand wherein it has mentioned that there is no National Park, Wildlife Sanctuary, Ramsar Site, Tiger/Elephant Reserve within core and buffer zone of the mining lease.
9. PP previously submitted the authenticated list of flora & fauna present in the within 10 KM of the project site as per which there are 8 schedule- 1 species viz. Indian Peafowl, Indian Grey Horn Bill, Black Shoulder Kite, White Eyed Buzzard, Indian Monitor Lizard, Indian Flapshell Turtle, Indian Python and Indian Leopard present in the study area. PP submitted the Wildlife Conservation Plan (WCL) prepared for the protection of the above mentioned Schedule-1 Species. The amount proposed under WCL is 126.0 Lakh for five years.

Observation of EAC: Committee previously observed that the PP did not submit the proof of submission of WCP to Chief Wildlife Warden and also the plan is only for five years but life of mine is more than 15 years. The Committee also asked the PP that how they will ensure that amount proposed for conservation plan will be spent in the activities proposed in Conservation Plan. The Committee finally asked the PP to submit Wildlife Conservation Plan duly approved by Chief Wildlife Warden and also monitoring mechanism for implementation of the same. The Conservation Plan should be prepared as per suggestion provided by the Committee members during the meeting.

PP submitted that Schedule-1 Conservation Plan along with budgetary provisions was prepared and submitted to Office of Deputy Conservator of Forest, Wild Life, Rajsamand vide letter no UH (RDM)/Env/DCF/2018 dated 15.11.2018. Proposal was reviewed and forwarded with remarks to Chief

Conservator of Forest, Wildlife, Udaipur vide letter no. 1253 dated 07.02.2019. As per recommendation from DCF - Wildlife, Rajsamand, conservation plan has been revised and submitted to CCF and DCF Wildlife office vide letter no RDC/Env/CCF/2019 dated 28.03.2019. The revised Conservation plan has been made till validity of Mine Lease. i.e. 2030. CCF has forwarded the proposal to APCCF and Chief Wildlife Warden Rajasthan vide letter no. 1063 dated 05.04.2019. Chief Wildlife Warden (CWLW), Rajasthan has issued guideline i.e. "Instructions for processing of wildlife conservation plan for Projects" vide letter no. 6451-63 dated 24.05.2019 and advised vide letter no. 6567 dated 31.05.2019, to revise the same as per latest guideline. The Wildlife Conservation Plan has been revised and submitted to DCF - Wildlife, Rajsamand vide letter no. UH(RDM)/Env/DCF/2019 dated 27.08.2019. The budget earmarked for the same is Rs 6.6 crores till validity of Mine Lease. i.e. 2030; which include habitat improvement & mitigative measures, Support to Forest Department for monitoring, rescue & rehabilitation of wildlife and training & awareness etc. PP also submitted that the conservation plan has been in principally approved by Chief Wildlife Warden, Rajasthan vide letter No. F11(676)/Vikas-II/MuvJiPra/2019-20/9491 dated 9.12.2019.

*The Committee observed that total 8 Schedule-1 species viz. Indian Peafowl, Indian Grey Horn Bill, Black Shoulder Kite, White Eyed Buzzard, Indian Monitor Lizard, Indian Flapshell Turtle, Indian Pythone and Indian Leopard were reported by PP in EIA/EMP Report but the conservation plan is prepared only for 5 Schedule-1 species out of 8 viz. Indian Peafowl, Indian Monitor Lizard, Indian Flapshell Turtle, Indian Pythone, Eurasian-spoonbill and Indian Leopard. Committee observed that out of 8 **Indian Grey Horn Bill, Black Shoulder Kite, and White Eyed Buzzard** are not schedule-1 species. **It has observed that as per authenticated list of flora & fauna there are 7 Schedule-1 species viz. Indian Gazelle, Four horned antelope, wolf, Indian Peafowl, Margh Crocodile, Panthera Pardus, and Indian Mud Turtle.** Out of these conservation plan does not include Indian Gazelle, Four horned antelope, wolf, and Margh Crocodile. **Therefore, Committee is of the view that PP should prepare and submit the conservation plan for the same.** Further, PP shall submit the amount proposed for conservation plan to State Government as per demand raised by them from time to time. PP shall report the status of payment and implementation of conservation plan to Regional Office, MoEF&CC annually.*

10. PP reported that the baseline data on micrometeorology, Air, Water, Noise & Soil has been generated during Summer Season (March, 2017 - May, 2017). The monitoring results of ambient air for SO₂, NO₂, PM₁₀ and PM_{2.5} are within

the prescribed NAAQS Standards. The water quality of ground water samples was found to be within the prescribed IS: 10500 norms except some locations. The monitored ambient noise levels were within the limit values for Industrial & Residential areas. The results of the soil samples show that the soil is sandy loamy in texture and neutral in nature. The nutrient and organic contents are medium and the soil is normally fertile.

Observation of EAC: *Previously Committee observed that One season data was required to be collected as per ToR Point no 24 but in the instant case PP has collected Noise Level Data for Month of April 2017 only. The Committee also observed that the air quality modelling is not carried for total excavation. Further, the modelling has been done for proposed expansion quantity. Thus, the Committee also desired that modelling should be done for both i) total excavation including the expansion and ii) only for expanded quantity as proposed by PP. The PP should ensure that modelling should be done for both the scenarios (worst & control case). Complete details of the input parameter & calculation used for modelling should be placed before the Committee. Further, the EIA Report uploaded online and hard copy submitted is not same w.r.t to page number. Thus, PP needs to check the same.*

PP submitted that noise monitoring has been conducted as per guidelines of baseline environmental monitoring i.e. once in season. PP submitted the air quality modelling in control and without control scenario considering total excavation and the resultant concentration is well within the prescribed NASSQ limits. In addition to this PP submitted that there is no difference in content of the online submitted report and hard copy submitted, but the page number are changed while publishing.

11. **Public hearing** for the project was conducted on 29.10.2018 at 11:00 AM. At Rajpura Dariba Mine Complex, Tehsil: Relmagra, Dist: Rajsamand, Rajasthan. The public hearing was chaired by Shri Shyam Lal Gujar, District collector & District Magistrate, Rajsamand. The advertisement for public hearing was published in 'Rajasthan Patrika' (28.09.2018) and 'Times of India' (28.09.2018). The Committee deliberated on the issues raised during the public F. No. J-11015/84/2018-IA. II (M) hearing and the major issues raised by the local people were related to assistance in farming, drinking water supply, medical facilities, employment, roads, work to small contractors, education, crop compensation, pollution, employment to widows, discharge of chemical in pond, Gau Shala and water facility for animals, CSR activities to be extended etc.

Observation of EAC: *The Committee observed that the PP has submitted the reply for the question raised during the PH. But many stakeholders submitted their written comments. Thus, PP needs to address all the issues raised during PH including the written comments, The PP needs to provide the details of commitment made during the public hearing and budget & timeline for the implementation of the same. Copy of advertisement published in Rajasthan Patrika on 28.09.2019 needs to be submitted.*

PP submitted that majority of verbal and written communication submitted during Public Hearing by various stakeholders has been complied and submitted to the Ministry. Action Plan of the written submission during the PH has been prepared which include the same demand like health, hygiene, water, education, infrastructure development, environment, and on priority jobs etc. PP submitted that all the commitment made during PH have been incorporated in budget for EMP & CER. PP submitted the copy of advertisement publish for PH in Rajasthan Patrika on 28.09.2019. PP submitted that the total budget for EMP is 110.50 Crores (Capital) [Rs 14.0 Crore existing & Rs 96.50 Crore for expansion], Rs 6.95 Crore (Recurring) [Rs 3.18 Crore existing & Rs 3.77 Crore for expansion]. In addition to this PP also increased proposed an amount of Rs 14.0 Crores for Corporate Environment Responsibility.

Committee observed that in addition to EMP & CER, the PP also proposed the budget under CSR for fulfilment of issues raised during PH. Committee also observed that there are issues related to crop damage thus PP shall engage an expert agency to identify the area which has maximum possibility to be get impacted due to mining & plant activity. After ascertaining the area of influence the PP shall annually monitor the crop productivity of the identified area. PP shall provide the crop insurance for agricultural field falling in this area and in case of crop damage take immediate measure to mitigate the same and also ensure to pay crop loss compensation.

- 12.** PP previously proposed Rs 16.5 Crores under CER @ 2.5% of Project Cost. But during the meeting PP submitted that based on expansion cost it come out to be around 3.0 Crores. PP reported that there is no court case/ litigation pending against the project.

Observation of EAC: *Committee previously suggested that PP needs to submit the activity wise time bound action plan with budgetary provision for Corporate Environmental Responsibility (CER).*

PP submitted that the budget earmarked for CER activities is Rs 14.0 Crores which include Activity -1: Health, Hygiene & Water [a) Renovation &

Renovation and upgradation of Govt. Hospital (CHC Mahenduriya) {Construction of additional wards, toilets, garden, mortuary, lighting, etc.}; Budget Rs. 100 Lakh; Time-line 1st year, b) Installation of High Capacity Community RO in 4 surrounding villages; {1500 Lts. Per hr capacity, auto TDS, real time data, 5000 storages, SS tank mounted vehicle to mobile ATM and water transfer. 24 * 7 chilled water supply – Railmagra 2 nos., Sindesar kalan, Gawardih}; Budget Rs. 200 Lakh @ Rs 100 Lakh/year; Time-line 2-year. c) Construction of overhead tank and pipe line in village for uninterrupted water supply {20,000 Lts. Overhead tank at Kothdi}; Budget 300 Lakh; Time-line 1st, 2nd & 3rd year], Activity -2: Education [a) Holistic development of 3 government schools {Additional classrooms, separate toilets, lab, computer classes, boundary wall & field development at Kotdi, Anjana & Shivpura} Budget Rs. 150 Lakh @ Rs 50 Lakh/year; Time-line 3-year, b) Renovation of 20 old Anganwadis {Repair & maintenance work, painting, roof treatment, boundary, electricity, etc.} Budget 200 Lakh @ Rs 100 Lakh/year; Time-line 2nd & 3rd Year.] Activity -3: Infrastructure Development [a) Construction of Check Dam {Construction of check dam at Pipawas} Budget Rs. 100 Lakh; Time-line 1st year. b) Community centres {At Naya Dariba, Anjana, Mahenduriya} Budget 120 Lakh; Time-line 1st year, c) Construction of stadium & playgrounds {Kabra & Gawardih} Budget 80 Lakh; Time-line 2nd year, d) Solar Lights {300 lights in surrounding 10 villages} Budget 100 Lakh; Time-line 1st year, e) Solar pump water systems {10 HP motor with Solar panels in 5 surrounding villages} Budget 150 Lakh & 100 Lakh, Time-line 2nd & 3rd year].

Observation of EAC: *The Committee is of the view that an amount of Rs 16.5 Crores was proposed under CER in the EIA/EMP report placed during the public hearing and same should not be reduced. PP already provided the details of Rs 14.0 Cr to be spent on various activities and remaining 2.5 crores shall be spent on i) to provide sanitary vending machines in Govt Girls Schools, Village Govt Health Centres and SHG Groups, ii) facilities to under privileged group for treatment of critical diseases like cancer/heart surgery, kidney/liver failure, etc. in nearby village, iii) to provide online library in Govt School for referring course syllabus, employment coaching exams etc. and iv) scholarship to meritorious youth for higher education. In case the amount proposed under CER is left unspent than the same should not be diverted and kept for CER activities beyond 3rd year. At the end of life of mine if any amount remains unspent than the same should be spent in consultation with local administrations for the development of nearby villages.*

13. With respect to **Occupational Health Surveillance Plan** Committee previously observed that PP did not identify the occupational hazard and their mitigation measures. PP did not submit the budget for the Occupational Health

Surveillance Plan. Thus a time bound, activity-wise budget for Occupational Health Surveillance Plan needs to be submitted. The Occupational Health Surveillance Plan should be prepared after perusing the Standard EC Condition recently formulated by the MoEF&CC. In addition to this, PP needs to provide the details of concentration of lead & Zinc in the blood samples of the workers. The Committee also observed that PP has not provided any details regarding status and monitoring of the indoor air quality, b) The Committee also observed that being an underground mine, PP needs to submit the detailed disaster management plan which clearly bring out the hazards/risk associated with mining operation, mitigative measures, roles & responsibilities of person engaged for the implementation of the same, budgetary provision, internal & external audits etc.

PP submitted the occupational hazard and their mitigation measures. PP submitted that Occupational Health surveillance program for employees will be carried out in compliance to Mines Act, 1952 & Mines Rules 1955, Mines Conference of safety promotions. Initial and periodical medical examination is being done as per mines rules 1955 which includes a) General medical examination of health, neurological function, reflexes, skin function, physical fitness test, anthropological parameters like height, chest breadth, depth & circumference, grip strength, body weight, BMR, BMI, blood pressure systole, diastole, pulse pressure, mean blood pressure, examination ear, nose, throat and eye etc., b) Pulmonary function test for detection of restrictive, obstructive and combined impairment, c) Chest X-ray plate examination as per ILO classification 8-readers pneumoconiosis. The concerned medical occupational health specialist or radiologist should be trained in reading the chest X-ray as per ILO classification of pneumoconiosis by B-readers, d) ECG test for each employee to know the cardiac function. Tread mill or bicycle ergo meter test dynamic ECG by MX lead or by other probe chest leads optional. The occupational Health service centre should have trained ECG technician for conducting this test and a trained medical doctor in cardiology specialization to read and interpret the ECG graph, e) Renee's Test, Weber's Test, and Audiometry test for detecting nerve and bone conduction at different frequency and intensity of sound. The occupational health service centre should have noise proof room and trained audiologist to conduct this test, f) Eye test - general examination of the eye, visual reflex detection like light reflex and accommodation reflex, shot sightedness and long sightedness test like Snell's test, Jaeger's test, Colour vision testing by Ishara's Chart, Optical perimetry test in white light, green light, yellow light, blue light and red light, visual acuity test, inter ocular pressure test, stroboscopic vision test, g) Complete Hematological, biochemical and hormonal parameters test as per Form O and h) Complete Urine analysis for all biochemical parameters.

PP submitted that HZL had undertaken Occupational health surveillance in consultation with National Institute of Miners Health, KGF, which includes A) The occupational hygiene surveillance includes airborne respirable dust monitoring by using DGMS approved dust sampler for underground mine dust monitoring. The size of respirable dust particle surveyed by DGMS approved dust sampler is 4μ . At present there are two approved DGMS dust sampler i.e. Side Kick Ex 51, flow rate 2.21/min, make SKC USA and CIPIO, flow rate 101/min, make Arelco France. The TWA concentration result obtained for area dust sampling by using Side kick Ex51 or CIP10 is divided by 1.13 or 1- 36 respectively to get equivalent MRE GDS 113A dust concentration. B) The NIMH conducted with five sets of above-mentioned samplers for respirable dust survey in different location, operation and on different type of workers to know the actual respirable dust concentration in this mine. The monitoring of different active locations and operations in the mine as per the comprehensive plan of dust done. NIMH also did noise monitoring with Type I personal noise dosimeter for personal noise monitoring and Type I sound level meter for area noise and area noise zone monitoring. The noise monitoring done. C) The area and personal respirable dust samples collected from different location of open cast and underground mine, tested for free silica by Fourier transformed infrared spectrophotometry for qualitative and quantitative analysis of free percentage present in the respirable dust samples. If the percentage of free silica in the area and personal respirable dust samples is $\leq 5\%$ then the Threshold Limit value (TLV) for respirable dust is $3\text{mg}/\text{m}^3$ calculated by the following formula. D) The noise mapping conducted in noise prone areas on surface and for underground mine by using Type I sound level meter, compass, wind vane, anemometer, Geographical positioning system (GPS) coordinates, Geographical information system (GIS) and Predictor Lima software of B&K. E) The whole body and hand arm vibration monitoring got conducted with a whole-body vibration meter along with accelerometer seat pad and hand arm vibration probe in x, y and z axis. HEMM and other mining equipment monitored for Whole body and hand arm vibration once a year. The WBV & HAV conducted as per ISO standard & DGMS safety conference recommendation. F) NIMH also monitored wind speed, relative humidity, WBGT (Indoor/Outdoor), heat stress, heat index, B4SR, P4SR, ET, CET. This monitoring conducted pre-monsoon summer and shall be conducted for post monsoon winter season. G) The ergonomic assessment of workspace and analysis of HEMM & other mining equipment may be conducted once a year. The ergonomics assessment monitoring may be conducted through DGMS approved Government lab, Research institution, Educational organization etc. With respect to Indore air quality PP submitted that in order to strengthen the mine ventilation and provide the safe environment, statutes of MMR-1961 is

followed in underground mine with the Standards of Ventilation viz. a) Minimum air velocity of 30 m/min. b) Relative Humidity & Temperature not to exceed 33° C DBT & 30.5° C WBT. c) CO and NOx levels in underground atmosphere below 50 ppm and 5 ppm respectively.

The PP submitted that budget earmarked for occupational health surveillance shall be Rs 204 Lakh which includes 1) IME Budget @ 2500 per person (Rs 25 Lakh for 2019-20, Rs 6.25 for 2020-21, Rs 2.5 Lakh/annum from 2021-22 to 2030-31), 2) IME Budget @ 2500 per person (Rs 5 Lakh for 2019-20, Rs 7 Lakh/annum from 2020-21 to 2030-31), 3) PPEs @ Rs.5000 per person (Rs 100 Lakh for 2019-20, Rs 62.5 Lakh/annum from 2020-21 to 2030-31), 4) Occupational Hygiene (Rs 18.5 Lakh/annum from 2019-20 to 2030-31), 5) Quantitative & Qualitative Hygiene Survey (Rs 53 Lakh for 2019-20, Rs 5 Lakh/annum from 2020-21 to 2030-31), 6) AMC of OH Software (Rs 2 Lakh/annum from 2019-20 to 2030-31).

PP submitted the Disaster Management Plan prepared for the mines. PP submitted that site has a Disaster Management Plan in place. Internal & external audit is being done periodically. All the deficiencies get addressed through Corrective & Preventive Action Plan. PP submitted that RRRT Centre established with 27 rescue trained persons round the clock and planned to upgrade RRRT center to Rescue Station by Mar-21. PP submitted that Budget allocations for the Emergency preparedness is prepared & submitted. Capital & recurring expenditure is around Rs. 2.29 crore which includes 1) Rs. 0.84 Cr. for Rescue Apparatus 2) Rs. 0.35 Cr. for Underground Ambulance, 3) Rs. 0.35 Cr. for Underground Rescue Van, 4) Rs. 0.15 Cr. for Vehicle for surface movement, 5) Rs. 0.50 Cr. for Fire tendering equipment and 6) Rs. 0.10 Cr. for Structure for Work @ Height. The recurring budget proposed is 1.53 Cr. which includes 1) Rs. 0.05 Cr. for RRRT Center 2) Rs. 0.22 Cr. for Apparatus, Calibration & Maint. , 3) Rs. 0.78 Cr. for RTPs & Trainings, 4) Rs. 0.05 Cr. for RRRT Competition, 5) Rs.0.14 Cr. for Firefighting organization, 6) Rs. 0.24 Cr. for Refuge Chamber & Self-Rescuer and 7) Rs. 0.05 Cr. for Ambulance & Rescue Van.

14. The Project Proponent previously submitted that the budget earmarked for Environmental Management Plan (EMP) shall be ~ 110 Crores (Capital) & ~ 6.95 Crores (Recurring) which include [Dust control/suppression systems ~ 0.8 Crores (Capital) & ~ 1.5 Crores (Recurring); Tailing Dam management/ Dry Tailing Disposal ~ 16.0 Crores (Capital) & ~ 2.0 Crores (Recurring); Tailing thickener ~ 0.5 Crores (Capital) & ~ 0.2 Crores (Recurring); Surface water sprinkler ~ 0.75 Crores (Capital) & ~ 0.1 Crores (Recurring); Mechanical road sweeper ~ 0.75 Crores (Capital) & ~ 0.1 Crores (Recurring); Ventilation

System ~ 6.0 Crores (Capital) & ~ 1.0 Crores (Recurring); Rainwater harvesting measures/ Deepening of existing Village Tanks ~ 55.1 Crores (Capital) & ~ 0.11 Crores (Recurring); Plantation/Green belt development with drip irrigation system ~ 3.0 Crores (Capital) & ~ 0.2 Crores (Recurring); Different Environmental Monitoring equipment ~ 0.3 Crores (Capital) & ~ 0.04 Crores (Recurring); Automation in Environment Monitoring (CAAQMs) ~ 2.5 Crores (Capital) & ~ 0.2 Crores (Recurring); Construction of Garland drain and silt settling tank and recycle system for waste dump management ~ 0.25 Crores (Capital) & ~ 0.05 Crores (Recurring); Schedule-I fauna conservation plan cost ~ 2.0 Crores (Capital) & ~ 0.05 Crores (Recurring); Installation of Oil grease trap system & Sewage treatment plant ~ 3.05 Crores (Capital) & ~ 0.2 Crores (Recurring); Water hydrant system ~ 0.25 Crores (Capital) & ~ 0.05 Crores (Recurring); High density/ Paste Fill ~ 16.5 Crores (Capital) & ~ 1.1 Crores (Recurring); Hazardous waste storage facility ~ 0.5 Crores (Capital) & ~ 0.0 Crores (Recurring); Bag filters/ de-dusting system ~ 2.0 Crores (Capital) & ~ 0.0 Crores (Recurring) and Mobile Water tankers ~ 0.25 Crores (Capital) & ~ 0.05 Crores (Recurring)] .

Observation of EAC: *The committee previously observed that the PP did not submit the activity-wise time bound action plan for the EMP so that the same can be monitored after grant of EC.*

PP submitted that the budget earmarked for **Environmental Management Plan (EMP)** is Rs shall be Rs 110.50 Crores (Capital) & Rs 6.95 Crores (Recurring) which include [Dust Suppression System / Dust Extraction System installation with dust monitoring sensor (opacity meter) at chimney sampling point (COSP) Rs 1.2 Crores (Capital) & 1.5 Crores (Recurring), timeline 1 year; Tailing Dam management/ Dry Tailing Disposal Rs 26.20 Crores (Capital) & 1.96 Crores (Recurring), timeline 2 years; Tailing thickener Rs 0.5 Crores (Capital) & Rs 0.2 Crores (Recurring), timeline ; Surface water sprinkler Rs 0.80 Crores (Capital) & Rs 0.1 Crores (Recurring), timeline 1 year; Mechanical road sweeper Rs 0.80 Crores (Capital) & ~ 0.1 Crores (Recurring), timeline 1 year; Ventilation System Rs 16.6 Crores (Capital) & Rs 1.0 Crores (Recurring), timeline 2 years; Rainwater harvesting measures/ Deepening of existing Village Tanks 30.0 Crores (Capital) & 0.11 Crores (Recurring), timeline 3 years; Plantation/Green belt development with drip irrigation system 12.0 Crores (Capital) & 0.2 Crores (Recurring), timeline 10 years; Automation in Environment Monitoring (CAAQMs) 21.0 Crores (Capital) & 0.2 Crores (Recurring), timeline 1 year; Construction of Garland drain and silt settling tank and recycle system for waste dump management 0.3 Crores (Capital) & 0.1 Crores (Recurring), timeline 2 year; Schedule-I fauna conservation plan cost 6.60 Crores (Capital) & 0.01 Crores (Recurring), timeline 2 year;

Installation of Oil grease trap system & Sewage treatment plant, installation with display of COD,BOD ,TDS,PH display at main gate entrance 18.0 Crores (Capital) & 0.2 Crores (Recurring), timeline 18 months; Water hydrant system 0.7 Crores(Capital) & 0.10 Crores (Recurring), timeline 18 months; High density/ Paste Fill 10.40 Crores (Capital) & 1.1 Crores (Recurring); Hazardous waste storage facility 0.5 Crores (Capital) & 0.0 Crores (Recurring), timeline 2 year; and Mobile Water tankers 0.3 Crores (Capital) & 0.05 Crores (Recurring), timeline 1 year].

15. The Committee took note of the **Compliance Report** of MoEF&CC, R.O. Lucknow dated 26.11.2018 in respect of EC granted vide Lr No J-11015/380/2008-IA. II(M) dated 04.11.2009 and noted that PP has complied most of the conditions and certain scope for improvement, including minor non-compliances has been observed and reported by the Regional Office, Lucknow. The PP submitted that no (R & R) is involved in this project.

Observation of EAC: *The Committee previously observed that PP obtained the EC for expansion in capacity i.e. from 0.9 million TPA to 1.08 million TPA of ore production vide letter no. J-110015/380/2008-IA II (M) dated 26.07.2018 under clause 7 (ii) of EIA notification, 2006. But the compliance of this EC condition is not mentioned in the compliance report. The Committee is also of the view that PP should comply with all the minor violation reported by the Regional Office and implementation of the same needs to be submitted.*

The proposal is a brown field project and requires verification in pursuant to Hon'ble Supreme Court order dated 02.08.2017 in the matter of Common Cause and S.O 804(E) dated 14.03.2017. In this regard information submitted by the PP was examined and it has observed that the production in year 1993-94 was 423805 Tonne. However, the production was increased to 549770 Tonne in year 2002-03 and at this stage PP was required to obtain EC under EIA notification 1994. But the PP obtained Environment clearance for 0.9 million tonne ore production and 1.2 million Tonne of ore beneficiation during 2009 vide Lr No. J-11015/380/2008-IA II (I) dated 04.11.2009. The PP further obtained the EC for expended capacity i.e. from 0.9 million TPA to 1.08 million TPA of ore production vide letter no. J-110015/380/2008- IA II (M) dated 26.07.2018 under clause 7 (ii) of EIA notification, 2006. Thus, there is a violation of Common Cause Order dated 02.08.2017 as PP was required to obtain EC on increase in production capacity. Further, the PP has exceeded the CTO limit for production of Zinc concentrate in the year 2002-03 [55573-54750=823 tonne]. Thus, it attracts violation of SC Order dated 02.08.2017. The PP has submitted an affidavit as per O.M. No. 3-

50/2017.IA.III (Pt) dated 30.05.2018 to comply with all the Statutory Clearance and Common Cause Order dated 2.08.2017.

The Committee observed that there is a violation of Common Cause Order dated 02.08.2017 in the instant case for which affidavit was submitted by the PP. Based on this affidavit EC was granted to PP vide letter no. J-110015/380/2008-IA II (M) dated 26.07.2018 under clause 7 (ii) of EIA notification, 2006. In this EC letter there was specific condition wherein it has mentioned that PP shall comply with the direction of Hon'ble Apex Court dated 02.08.2017. There was also direction to State Government for not to allow mining operation till the PP pays the compensation for violation of Common Cause Order. In the ToR granted for the expansion project vide Lr. No. J-11015/84/2018-IA-II (M) dated 27.09.2018 it was explicitly mentioned that ToR shall not operational without complying with the Common Cause Order dated 02.08.2017. The PP submitted that they have approached State Government but till date no demand has been raised by the State Government of Rajasthan. The **Committee asked the PP to submit the documents in support of the efforts made by HZL for payment of compensation of violation of Common Cause Order dated 02.08.2017. The Committee also asked the PP to first pay the penalty for violation of Common Cause Order dated 2.08.2017 and obtain NOC from the State Government before considering the proposal.**

PP submitted that Certified EC Compliance Report has been issued from Regional office of MoEF & CC vide letter no. IV/Env/R/Ind-115/758/2009/503 dated 26.11.2018 against stipulated conditions of the Environmental Clearance vide letter no-J-11015/380/2008-IA. II (M) dated 04.11.2009 with some minor non-compliance observed/ partially complied conditions. Point wise compliance status has been submitted to MoEF&CC vide letter no. HZL/DSC/ENV/EC/2018/01 dated 04.12.2018 and all desired information/ documents have been submitted for partially complied conditions. PP submitted that two additional conditions stipulated vide letter no. J-110015/380/2008-IA II (M) dated 26.07.2018 are standard condition of the prescribed ToR, as per MoEF Office Memorandum No. F: 3-50/2017-IA.III (Pt.), dated 30.05.2018, on the judgment of Hon'ble Supreme Court, dated the 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014. RD Mine is determined to comply with all the statutory requirements and compliance to judgement of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. An affidavit in this regard has been submitted to MoEF&CC.

PP submitted that there is no violation of common cause judgement and we are attaching in support the documents comprising letter from Rajasthan pollution board vide letter no F12 (Gen-107) RSPCB/Gr. Mines/ 873 dated 20.08.2019 and also the letter from DMG issued by appropriate authority vide Letter No KHA/Raj-II/CC-I/2019/2918 dated 10.10.2019 confirming that there are no dues against the company.

*Committee observed that additional EC/ToR conditions are for compliance of Common Cause Judgment dated 2.08.2019. The Ministry already informed endorsed the copy of EC/ToR to State Government and also vide its letter No L-11011/79/2019-IA.II(M) dated 9/7/2019 requested State Government viz. RSPCB & Mining Department to take necessary action for compliance of direction of Hon'ble Supreme Court. The Rajasthan State Pollution Control Board in its letter no F12 (Gen-107) RSPCB/Gr. Mines/ 873 dated 20.08.2019 inter-alia mentioned that the total production in year 2002-03 is well within the total CTO capacity and as far as the period between December 2003 to 2008 is concerned, the PP has not exceeded the consented production capacity as allowed in CTO. PP also submitted a letter No KHA/Raj-II/CC-I/2019/2918 dated 10.10.2019 and letter No KHA/Raj-II/CC-I/2019/3023 dated 18.11.2019 issued by Mining Engineer, Rajsamand Section II, Department of Mining & Geology, Rajasthan wherein it has mentioned that there is no investigation or show cause notice pending under the Common Cause Order of Supreme Court and Section 21(5) with respect to ML No. 2/1989 (new -166/2008) and there is no dues pending under section 21(5). **The Committee after due consideration of the documents submitted by PP is of the opinion that PP has complied the necessary requirements as there is no dues pending before DMG-Rajasthan and also RSPCB has confirm the production is within CTO capacity.***

17. The Consultant Gaurang Environmental Solution Pvt. Ltd. has submitted the disclosure of the consultant engaged and also confirmed that the consultant organization shall be fully accountable for any misleading information mentioned in this statement.

Observation of EAC: *Committee previously observed that both PP & Consultant should submit an undertaking that the information provided in the EIA/EMP Report and all other submission made to the Ministry in respect of this project are factually correct and PP & Consultant are fully accountable for the same.*

PP submitted the legal undertaking dated 10.02.2019 from consultant wherein it has inter-alia mentioned that the details and data presented in the proposal submitted to MoEF&CC, Delhi are factually correct and prescribed ToR has

been complied with. PP also submitted an undertaking wherein it has mentioned that information presented in the report is factually correct and HZL owns the content of the report.

18. The requirement of submission is after the issuance of O.M. No. 22-8/2018 IA.III (M) dated 20.04.2018. The PP applied under Form-II.
19. Project Proponent previously submitted that the total project cost shall be Rs 960 Crore (Capital) and shall give extend employment to 1250.

Observation of EAC: *Committee previously observed that although PP has mentioned the recurring cost but they did not mention the amount for the same. PP has mentioned the employment figures but it's not clear whether it is direct or indirect employment. Thus, PP needs to provide the complete details of recurring cost and employment.*

PP submitted the details of recurring cost which varies around Rs 70621/tonne of MIC to Rs 75683/tonne of MIC. PP submitted that total employment will be provided to 1083 persons [251 direct & 830 indirect].

The Committee observed that PP previously mentioned that "The existing operation has direct employment of about 1000 persons and proposed expansion will provide additional employment of about 250 persons". PP now provided the details of direct & indirect employment to be generated due to expansion project. Committee is of the view that PP shall give preference to eligible locals/ nearby villagers in employment.

20. Based on the discussion held and documents submitted the Committee **recommended** the proposal of M/s Hindustan Zinc Ltd for expansion in production of Lead-Zinc Ore from 1.08 million TPA to 2.0 million TPA (Total Excavation 2.48 million TPA) & Lead-Zinc Ore Beneficiation from 1.2 million TPA to 2.5 million TPA from Rajpura Dariba Underground Mine (Mining lease area 1142.2106 & ML No. 166/2008), Located at Tehsil Relmagra, Distt-Rajsamand, Rajasthan with following specific conditions in addition to Standard EC Conditions as per Ministry's O.M. No. 22-34/2018-IA.III dated 08.01.2019 subject to submission of application for revised conservation plan for remaining schedule-1 species and proof of submission of the same to CWLW:
 - a) NOC from **CGWA** obtained vide LR No 21-4(315)/WR/CGWA/2008-1905 dated 16.11.2017 wherein the permission for dewater the accumulated ground water in mining pits @ 446.50 m³/day due to seepage and intersection of water

table was provided. This NOC is valid for 3 years i.e. up to 15.11.2020. Beyond 15.11.2020 PP shall use the ground water only after obtaining approval from CGWA and State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) for expansion proposal after 15.11.2020, till the project proponent obtains such permission. Zero Liquid Discharge is to be maintained from tailing dam. PP shall not use surface water without obtaining permission from the concerned authorities. Plant should be operated with 100% recycle water and fresh water shall be used only for drinking purpose which is supplied for industrial, colony and nearby villages.

- b) Out of 0.48 MTPA of waste, 0.46 MTPA shall be used to fill underground voids, 0.02 to waste dumps and not more than 0.02 MTPA shall be used for increasing the height of tailing dam. Waste should not be transported outside the mining lease area and shall be utilised within the mining lease area. The dump shall be developed in 3 benches of 7-meter high. Total height of the dump shall not be more than 21 meters (from base level of 495 mRL i.e. up to 516 m RL). The overall slope of the dump shall not be more than 35°. Total quantity of the waste material in waste dump shall not be more than 3.64 Lakh Tonne. Protective measures as proposed viz. a) overall slope angle of waste dump is maintained at less than angle of repose of broken material, b) retaining wall is maintained around the waste dump to prevent roll down boulders, c) garland drain of 1m x 1m around waste dump is excavated for collecting the rain water into the storm water pit, and d) plantation shall be done in the inactive area of the waste dump to provide additional stability etc. shall be implemented for the stability of the waste dump. The area of dump yard should not be more than 5 Ha.
- c) Budget earmarked for plantation/green belt development with drip irrigation system after expansion is Rs 1200.0 Lakh (Capital) & Rs 20.0 Lakh (recurring). Plantation proposed within & outside the mine lease area lease during 2018-19 to 2022-23 total 56030 saplings will be planted on 43.1 Ha area (cumulative plantation 246030 on 233.1 Ha), during 2023-24 to 2027-2028 total 10660 saplings will be planted on 8.2 Ha area (cumulative plantation 256690 on 241.3 Ha). PP shall implement the protection proposed for the survival of plantation. PP shall engage the expert agency to increase the plantation density to at least 2500 saplings/ha. PP shall develop an alternative grazing in lieu of grazing land if already used by the PP for mining activity and take NOC from the concerned authorities for use of grazing land for mining purpose. Growth of each plant needs to be monitored and record should be maintained, the record should also be maintained for no of species planted, type of species planted, survival rate etc. The budget earmarked for plantation shall be kept in separate bank account and should be audited

annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

- d) Approval of Revised Conservation Plan for Schedule-1 species viz. Indian Peafowl, Indian Grey Horn Bill, Black Shoulder Kite, White Eyed Buzzard, Indian Monitor Lizard, Indian Flapshell Turtle/ Indian Mud Turtle, Indian Python, Indian Leopard, Indian Gazelle, Four horned antelope, wolf, Margh Crocodile, and Panthera Pardus needs to be obtained. PP shall sign the MoU with state government for implementation of conservation plan. PP shall deposit the amount proposed for conservation plan to State Government as per demand raised by them from time to time. PP shall report the status of payment and implementation of conservation plan to Regional Office, MoEF&CC annually.
- e) Budget earmarked for CER activities is Rs 14.0 Crores which include Activity - 1: Health, Hygiene & Water [a) Renovation & Renovation and upgradation of Govt. Hospital (CHC Mahenduriya) {Construction of additional wards, toilets, garden, mortuary, lighting, etc.}; Budget Rs. 100 Lakh; Time-line 1st year, b) Installation of High Capacity Community RO in 4 surrounding villages; {1500 Lts. Per hr capacity, auto TDS, real time data, 5000 storage, SS tank mounted vehicle to mobile ATM and water transfer. 24 * 7 chilled water supply – Railmagra 2 nos., Sindesar kalan, Gawardih}; Budget Rs. 200 Lakh @ Rs 100 Lakh/year; Time-line 2-year. c) Construction of overhead tank and pipe line in village for uninterrupted water supply {20,000 Lts. Overhead tank at Kothdi}; Budget 300 Lakh; Time-line 1st, 2nd & 3rd year], Activity -2: Education [a) Holistic development of 3 government schools {Additional classrooms, separate toilets, lab, computer classes, boundary wall & field development at Kotdi, Anjana & Shivpura} Budget Rs. 150 Lakh @ Rs 50 Lakh/year; Time-line 3-year, b) Renovation of 20 old Anganwadis {Repair & maintenance work, painting, roof treatment, boundary, electricity, etc.} Budget 200 Lakh @ Rs 100 Lakh/year; Time-line 2nd & 3rd Year.] Activity -3: Infrastructure Development [a) Construction of Check Dam {Construction of check dam at Pipawas} Budget Rs. 100 Lakh; Time-line 1st year. b) Community centres {At Naya Dariba, Anjana, Mahenduriya} Budget 120 Lakh; Time-line 1st year, c) Construction of stadium & playgrounds {Kabra & Gawardih} Budget 80 Lakh; Time-line 2nd year, d) Solar Lights {300 lights in surrounding 10 villages} Budget 100 Lakh; Time-line 1st year, e) Solar pump water systems {10 HP motor with Solar panels in 5 surrounding villages} Budget 150 Lakh & 100

Lakh, Time-line 2nd & 3rd year]. In addition to above Rs 2.5 Crore shall be spent on i) to provide sanitary vending machines in Govt Girls Schools, Village Govt Health Centres and SHG Groups, ii) facilities to under privileged group for treatment of critical diseases like cancer/heart surgery, kidney/liver failure, etc. in nearby village, iii) to provide online library in Govt School for referring course syllabus, employment coaching exams etc. and iv) scholarship to meritorious/ under privileged youth for higher education. In case the amount proposed under CER is left unspent than the same should not be diverted and kept for CER activities beyond 3rd year. At the end of life of mine if any amount remains unspent than the same should be spent in consultation with local administrations for the development of nearby villages. The amount proposed under this head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and details of implementation of CER activities along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, photographs & Geo-location of the infrastructures/facilities developed, etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

- f) Budget earmarked for Occupational Health Surveillance Plan shall be Rs 204 Lakh which includes 1) IME Budget @ 2500 per person (Rs 25 Lakh for 2019-20, Rs 6.25 for 2020-21, Rs 2.5 Lakh/annum from 2021-22 to 2030-31), 2) IME Budget @ 2500 per person (Rs 5 Lakh for 2019-20, Rs 7 Lakh/annum from 2020-21 to 2030-31), 3) PPEs @ Rs.5000 per person (Rs 100 Lakh for 2019-20, Rs 62.5 Lakh/annum from 2020-21 to 2030-31), 4) Occupational Hygiene (Rs 18.5 Lakh/annum from 2019-20 to 2030-31), 5) Quantitative & Qualitative Hygiene Survey (Rs 53 Lakh for 2019-20, Rs 5 Lakh/annum from 2020-21 to 2030-31), and 6) AMC of OH Software (Rs 2 Lakh/annum from 2019-20 to 2030-31). The amount proposed under this head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and details of implementation of occupational health plan along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, sampling reports, photographs & Geo-location of the infrastructures/facilities developed, details of persons engaged for implementation of occupational health plan to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- g) Disaster Management Plan proposed shall be implemented scrupulously. Budget allocations for the Emergency preparedness is prepared & submitted. Capital & recurring expenditure is around Rs. 2.29 crore which includes 1) Rs. 0.84 Cr. for Rescue Apparatus 2) Rs. 0.35 Cr. for Underground Ambulance, 3)

Rs. 0.35 Cr. for Underground Rescue Van, 4) Rs. 0.15 Cr. for Vehicle for surface movement, 5) Rs. 0.50 Cr. for Fire tendering equipment and 6) Rs. 0.10 Cr. for Structure for Work @ Height. The recurring budget proposed is 1.53 Cr. which includes 1) Rs. 0.05 Cr. for RRRT Center 2) Rs. 0.22 Cr. for Apparatus, Calibration & Maint. , 3) Rs. 0.78 Cr. for RTPs & Trainings, 4) Rs. 0.05 Cr. for RRRT Competition, 5) Rs. 0.14 Cr. for Firefighting organization, 6) Rs. 0.24 Cr. for Refuge Chamber & Self-Rescuer and 7) Rs. 0.05 Cr. for Ambulance & Rescue Van. The amount proposed under this head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and details of implementation of Disaster Management Plan along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, photographs & Geo-location of the infrastructures/facilities developed, details of persons engaged for implementation of Disaster Management Plan to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

- h) Budget earmarked for Environmental Management Plan (EMP) is Rs shall be Rs 110.50 Crores (Capital) & Rs 6.95 Crores (Recurring) which include [Dust Suppression System / Dust Extraction System installation with dust monitoring sensor (opacity meter) at chimney sampling point (COSP) Rs 1.2 Crores (Capital) & 1.5 Crores (Recurring), timeline 1 year; Tailing Dam management/ Dry Tailing Disposal Rs 26.20 Crores (Capital) & 1.96 Crores (Recurring), timeline 2 years; Tailing thickener Rs 0.5 Crores (Capital) & Rs 0.2 Crores (Recurring), timeline ; Surface water sprinkler Rs 0.80 Crores (Capital) & Rs 0.1 Crores (Recurring), timeline 1 year; Mechanical road sweeper Rs 0.80 Crores (Capital) & ~ 0.1 Crores (Recurring), timeline 1 year; Ventilation System Rs 16.6 Crores (Capital) & Rs 1.0 Crores (Recurring), timeline 2 years; Rainwater harvesting measures/ Deepening of existing Village Tanks 30.0 Crores (Capital) & 0.11 Crores (Recurring), timeline 3 years; Plantation/Green belt development with drip irrigation system 12.0 Crores (Capital) & 0.2 Crores (Recurring), timeline 10 years; Automation in Environment Monitoring (CAAQMs) 21.0 Crores (Capital) & 0.2 Crores (Recurring), timeline 1 year; Construction of Garland drain and silt settling tank and recycle system for waste dump management 0.3 Crores (Capital) & 0.1 Crores (Recurring), timeline 2 year; Schedule-I fauna conservation plan cost 6.60 Crores (Capital) & 0.01 Crores (Recurring), timeline 2 year; Installation of Oil grease trap system & Sewage treatment plant, installation with display of COD,BOD ,TDS,PH display at main gate entrance 18.0 Crores (Capital) & 0.2 Crores (Recurring), timeline 18 months; Water hydrant system 0.7 Crores(Capital) & 0.10 Crores (Recurring), timeline 18 months; High density/ Paste Fill 10.40 Crores (Capital) & 1.1 Crores (Recurring); Hazardous waste storage facility 0.5

Crores (Capital) & 0.0 Crores (Recurring), timeline 2 year; and Mobile Water tankers 0.3 Crores (Capital) & 0.05 Crores (Recurring), timeline 1 year] The amount (except occupational health) proposed under this head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and detailed environment monitoring report along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, sampling reports, photographs & Geo-location of the infrastructures/facilities developed, details of persons engaged in Environment Management Cell etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

- i) PP shall engage an expert agency to identify the area which has maximum possibility to be get impacted due to mining & cement plant activity. After ascertaining the area of influence the PP shall annually monitor the crop productivity of the identified area. PP shall provide the crop insurance for agricultural field falling in this area and in case of crop damage take immediate measure to mitigate the same and also ensure to pay crop loss compensation.

2.7 M/s Hindustan Zinc Limited of Rampura Agucha Lead and Zinc Opencast and underground mining project (from 5.0 MTPA to 6.15 MTPA) and Beneficiation capacity of Beneficiation Plant (from 5.0 MTPA to 6.5 MTPA) in the mine lease area of 1200 ha located in village Agucha, Tehsil Hurda, District Bhilwara, Rajasthan.

File No.: J-11015/267/2008-IA. II (M), Proposal no.: IA/RJ/MIN/128711/2019-EC Amendment

The Proposal of M/s Hindustan Zinc Limited is for amendment in the Environmental Clearance granted vides Letter No. J-11015/267/2008-IA. II (M) dated 11.12.2009 for Rampura Agucha Lead and Zinc Opencast and underground mining project (from 5.0 MTPA to 6.15 MTPA) and Beneficiation capacity of Beneficiation Plant (from 5.0 MTPA to 6.5 MTPA) in the mine lease area of 1200 ha located in village Agucha, Tehsil Hurda, District Bhilwara, Rajasthan w.r.t to change in height and area of tailing dam. PP applied for amendment in EC in Form-4 vide proposal no IA/RJ/MIN/128711/2019 dated 30.11.2019 and the proposal is placed in EAC meeting held during 19-20 December, 2019.

2. The PP submitted that the EC obtained in 2009 was based on mining lease validity till 12.03.2020. Based on the same, tailing dam ultimate height was approved as 51 m with area of 178.13 ha by MOEF&CC. In view of the Amendment in MMDR Act in 2015, the mining lease validity was extended up to 12.03.2030 vide ME, DMG letter dated 07.04.2015. Further, the exploration in Mining lease area has enhanced Reserves & Resources of Lead- Zinc Ore up to a depth of 1500m bgl. The ore bodies are open and likely to persist further depth wise. Hence, for the conservation of mineral resource, the optimal mining plan has been drawn which would generate additional tailings. To accommodate the enhanced tailings, the height of tailing dam and consequent increase in area (from 178.13 ha to 260 ha within the exiting mining lease) are necessary.
3. A detailed study on this aspect was carried out by Indian Institute of Science (IISc), Bengaluru. IISc has recommended to increase the height of tailing dam from 51 m to 74 m which has been duly approved by Indian Bureau of Mines (IBM) vide letter no 584(4)(3)(1724)/2018-RCOM-AJM/422 dated 27.03.2018/02.04.2018.
4. The amendment sought by the PP is the existing EC dated 11.12.2009 is as follows:

SL No	Para reference of Approved EC	Description as per Approved EC	Proposed Amendment	Remarks
1	Para 1 Page 2, Line No 28	Working depth by UG working is proposed as 1000 mbg	Working depth by UG working is proposed as 1500 mbg	As per approved Modified Mining Plan
2	Para 1 Page 2, Line No. 20	The height of the tailing dam will be 51m	The height of the tailing dam will be 74 m.	Approved in Modified Mining Plan based on IISC Bangalore
3	Specific Condition xxviii	Ultimate height of dam shall be maintained to 51 m.	Ultimate height of dam shall be maintained to 74 m	Approved in Modified MP based on IISC Bengaluru, R

4	Para 1, Page 2, Line No 16	The area for tailing dam is 178.13ha within ML	The area for tailing dam is 260 ha within ML	Proposed, designed by IISC Bengaluru
5	Para 1 Page 1, Line No. 22	The area for tailing dam is 178.13ha within ML	The area for tailing dam is 260 ha within ML	Proposed, designed by IISC Bengaluru
6	Para 1 Page 2, Line No 42	No Backfilling is proposed	Backfilling of tailing in the underground voids	As per approved Modified Mining Plan

4. PP submitted the details of production as per the format given in Annexure-III of the agenda, along with relevant documents which includes past production details from 1990-91 till 2018-19 duly authenticated by DMG for examining the proposal in light of common cause judgment dated 2.08.2017 and S.O. 804(E) dated 14.03.2017. PP also submitted an undertaking by the way of an affidavit bearing No AB 708956 dated 13.12.2019 for compliance of judgment of Hon'ble Supreme Court dated 2.08.2017 and other statutory requirement.

Observation of EAC: *The Committee observed that there was increase in production over and above the EC capacity but after grant of last EC dated 11.12.2009 the production is well within the EC capacity. Therefore, there seems to be no violation of S.O. 804(E) dated 14.03.2017 but there is a violation of Common Cause Order dated 2.08.2017 for which PP has submitted an undertaking.*

5. PP also submitted a study conducted by Indian Institute of Science, Bangalore for slope stability analysis & feasibility of raising the height of tailing dam from 51 meters to 74 meters.
6. Based on the discussion held and document submitted the Committee **recommended for amendment as** proposed by M/s Hindustan Zinc Limited in the Environmental Clearance granted vides Letter No. J-11015/267/2008-IA.II (M) dated 11.12.2009 for Rampura Agucha Lead and Zinc Opencast and underground mining project. The Committee recommended the following amendments in the Ec letter dated 11.12.2009:

SL No	Reference para of existing EC	Provision in existing EC	Amendment recommended
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1	Para 1 Page 2, Line No 28	Working depth by UG working is proposed as 1000mbg	Working depth by UG working is proposed as 1500mbg
2	Para 1 Page 2, Line No. 20	The height of the tailing dam will be 51m	The height of the tailing dam will be 74 m.
3	Specific Condition xxviii	Ultimate height of dam shall be maintained to 51m.	Ultimate height of dam shall be maintained to 74m
4	Para 1, Page 2, Line No 16	The area for tailing dam is 178.13ha within ML	The area for tailing dam is 260 ha within ML
5	Para 1 Page 1, Line No. 22	The area for tailing dam is 178.13ha within ML	The area for tailing dam is 260 ha within ML
6	Para 1 Page 2, Line No 42	No Backfilling is proposed	Backfilling of tailing in the underground voids

7. The Committee is of the view that EC was granted in 2009 and Ministry vide O.M. No. 22-34/2018-IA.III dated 08.01.2019 published the Standard EC Conditions for mining projects. Therefore, the earlier prescribed general conditions may be replaced by Standard EC Conditions as per O.M. issued by Ministry from time to time. In addition to previously prescribed specific conditions the Committee also prescribed the following additional conditions for this project:
- a) PP shall ensure that the recommendation provided in study conducted by Indian Institute of Science, Bangalore shall be complied for increasing the height of the tailing dam.
 - b) The risk arising due to surface runoff during rainy season or otherwise, from the tailing area/heap, shall be assessed on regular basis and corrective measures shall be undertaken and reported to SPCBs.

- c) PP shall engage suitable agency for conducting subsidence study for increasing the depth of working from 1000mbgl to 1500mbg. The report shall be submitted to Ministry within 6 months.
- d) No waste to be transported outside the mining lease area.

2.8 Amendment in Configuration of Integrated Barsua Taldih-Kalta Iron Ore Mining (ML-130 lease), Beneficiation and Pelletisation Plant Project of M/s Steel Authority of India Limited located in village Tantra and within Tohra RF, Tehsil Koira, District Sundergarh, Odisha

PP reported that EC vide letter no J-11015/351/2006-IA. II(M) dated 29th October, 2010 has been obtained for the Integrated Barsua-Taldih-Kalta Iron Ore Mining (ML-130 lease), Beneficiation and Pelletisation Plant Project of M/s Steel Authority of India Limited, located in Village Tantra and within Tohra RF, Tehsil Koira, District Sundargarh, Orissa.

- 2. PP informed that the present EC doesn't allow the mining of tailing and its sale. Considering the requirement of low grade tailing/fines, it is proposed to amend the existing EC in order to permit mining of low grade iron ore from the tailing ponds for sale in open market, instead of captive use. Reclamation & dispatch of tailings from tailings Pond will be environment friendly, as the low grade iron ore, lying ideal in tailing ponds can be utilised and their mining will extend free space for better management of tailings. PP informed that the mining plan has been modified and is approved accordingly.
- 3. PP further informed that Ministry of Mines, Govt. of India vide order dated 16.09.2019 has allowed sale of low-grade tailings / fines stacked at SAIL Captive Mines in open market for effective utilization of the low-grade iron ore.
- 4. PP informed that there is no change proposed in the mine area, production capacity, except the excavation pattern, i.e. mining from tailing heaps, a loosely bound above surface material, wherein PP proposed to mine with the help of excavators, etc, without any blasting. As informed by PP, the mode of dispatch and transportation of the mined tailing shall be in compliance to earlier EC condition. Production and dispatch from the proposed change in mining pattern will be limited to the capacity granted in existing EC.
- 5. EAC observed that the proposal doesn't address the environmental concern arising out of the proposed modification in mining process, especially with regard to the surface water management and risk and stability analysis of

tailing heaps in various condition.

6. The Committee is of the view that Ministry has issued O.M. no. Z-11013/49/2018-IA.II(M) dated 18th June, 2018 wherein it stipulates that EC is required for dump/OB mining also, the proposal entails mining of tailings. Also, PP has not provided the necessary supporting documents to inform about the quantity permitted by State Government in pursuance with the Ministry of Mines (order dt. 16.09.2019). The present operational status of palletisation and beneficiation plant and its operating capacity also need to be made available by PP, along with certified compliance report from RO, MOEF&CC.
7. Based on the discussion and information available, it was observed by EAC that the proposal doesn't qualify for amendment. However, PP may explore the option to utilise the provision of para 7(ii) of EIA Notification 2006, with requisite studies, for which PP accepted. Accordingly, EAC recommended to **return the proposal in present form** and ask the PP to apply as per provision of EIA Notification 2006 and OM issued by the Ministry along with all the requisite information and supporting studies reports including permission, if any required from State Government.

2.9 Amendment in EC granted to M/s. Thekedar Girraj Prasad Agarwal of Sandstone Mining Project (M.L. No. - 30/90-R-16/2000) with production capacity of 18000 TPA in the ML Area 165.30 ha located at Village -Langra, Tehsil-Mandraiyal, Dist.-Karauli Rajasthan.

File no: J-11015/668/2007-I. A II(M), Proposal no. :IA/RJ/MIN/127548/2019-EC Amendment

The Proposal of M/s. Thekedar Girraj Prasad Agarwal is for amendment in the Environmental Clearance granted vides Letter No. J-11015/668/2007-IA.II (M) dated 03.05.2012 for Sandstone Mining Project (M.L. No. - 30/90-R-16/2000) with production capacity of 18000 TPA in the ML Area 165.30 ha located at Village -Langra, Tehsil-Mandraiyal, Dist.-Karauli Rajasthan w.r.t to change in the Mining lease area from 165.30 Ha to 161.3248 Ha and change in mining method from manual to semi-mechanized.

2. PP applied for amendment in EC in Form-4 vide proposal no IA/RJ/MIN/127548/2019 dated 26.11.2019 and the proposal is placed in EAC meeting held during 19-20 December, 2019.

3. During the meeting PP submitted that EC was granted in the name of Shri Giriraj Prasad Gupta but later on after the death of Shri Giriraj Prasad Gupta, the mining lease was transferred in the name of his son Shri Rajendra Dayal Gupta on 9.08.2007. PP now requested to transfer the said environment clearance in his name.
4. PP informed that the State Government vide its letter dated 11.03.2014 informed that initially the mining lease area was mentioned as 165.30 Ha and the same during online scrutiny after demarcation of the area comes out to be 161.3248 ha.
5. PP informed that in the EC letter method of mining was mentioned as manual but during the PH and EC application they have proposed semi-mechanised method of mining. PP requested that for removal of overburden and re-filling use of machinery for maximum 20 hrs /month may be permitted.
6. Based on the discussion held and document submitted by PP, the Committee **recommended** the proposed amendment in the name from Shri Giriraj Prasad Gupta to Shri Rajendra Dayal Gupta, change in mining lease area from 165.30 Ha to 161.3248 Ha and permitted use of machinery (JCB/excavator/loader) for maximum 20 hrs /month for removal of overburden and re-filling subject to examination of the proposal in light of Common cause judgment dated 2.08.2019 and S.O. 804(E) dated 14.03.2017.

2.10 Katamati Iron Ore Mine of M/s TATA Steel Limited proposed for expansion in production of iron ore from 8.0 MTPA to 13.5 MTPA (Total excavation :15 MTPA) along with mineral beneficiation plant of 4 MTPA in the mine lease area of 403.3238 ha located at Deojhar & Thakurani Village, Keonjhar District, Orissa.

File:J-11015/63/2018-IA-II(M);ProposalNo: IA/OR/MIN/123688/2019.

The proposal of M/s TATA Steel Limited is for expansion in production of Katamati Iron Ore Mine from 8.0 MTPA to 13.5 MTPA (Total excavation :15 MTPA) along with mineral beneficiation plant of 4 MTPA in the mine lease area of 403.3238 ha located at Deojhar & Thakurani Village, Keonjhar District, Orissa. The latitude and longitude of the mine lease area lie between 22°05'N & 22°10'N and 85°25'E & 85°35'E and the Survey of India Top sheet number is 73 F/8 & 73 F/12. The project is located in Seismic Zone-II.

2. The Project is Category A project as the mining lease area is more than 100 Ha as per S.O. dated 14.08.2018. The Proposal also involved Mineral Beneficiation (Wobblers). Due to this PP applied in Form-1 under Schedule 1(a) - Mining of minerals activity & 2(b)- Mineral beneficiation. The information submitted by the project proponent and observation of the Committee are as follows:
3. PP reported that earlier the PP accorded the Environmental clearance by the Ministry on 06.05.2005 for production of 2.0 million TPA of Iron Ore. Further PP accorded the environmental clearance for enhancement of production of Iron Ore from 2.0 million TPA to 8.0 million TPA with no Beneficiation Plant by the Ministry vide letter no J-11015/63/2008-IA.II(M) dated 26th November, 2010 in the name of M/s TATA Steel Limited.
4. PP reported that Katamati lease comprises of 360.010 ha forest land and 43.3118 ha non-forest land. Western part of Katamati falls completely within the forest land whereas Eastern part covers partly forest land and partly non-forest land. PP reported that about 114.1911 ha is the broken up forest area prior to 1980 which will include some portion of Pit I, II & III. Present mining operation at Katamati is being carried out in non-forest land only. Mining operation in forest area have been temporarily discontinued in accordance with the judgment dated 12.12.1996 of Hon'ble Supreme Court regarding stoppage of on-going non-forest activities in forest areas and subsequent order from Divisional Forest Officer of Keonjhar. As iron ore at Katamati has wide occurrence in forest area, it necessitates for acquiring fresh forest land for continuance of mining operation in future. PP submitted that they had applied for forest diversion proposal for mining over 199.1720 ha forest land on 17.04.2007, which includes 31.1791 ha broken up forest area prior to 1980. As per the MoEF&CC, Govt. of India Circular dated 10.03.2015, 160.383 ha Non-forest area has been identified as forest as on 25.10.1980 (as per Sabik records) and accordingly Forest Diversion Proposal was been applied on 16.06.2016. Both the proposals 160.838ha (Sabikkisam forest land) & 199.1720ha forest land are **recommended** by FAC committee under total Forest land 360.01 ha located within total mining lease area of 403.3238 ha under the provisions of section 2(ii) of Forest (Conservation) Act 1980 with Standard, General and specific conditions.
5. The Katamati iron mine lease was originally granted on 17.01.1933 for 30 years over an area of 12.17 sq. miles (3152.018 ha) including Joda West and Khondbond blocks. It was renewed on 17.01.1963 for a period of 20 years over the same area. During the second renewal, Katamati formed an independent lease over an area of 403.3238 ha and renewed for a period of 20 years with effect from 17.01.1983. The third renewal of the mining lease was applied on 05.09.2001 for a period of 20 years with effect from 17.01.2003. However, in view of the Mines and Minerals (Development & Regulation) Amendment Act

2015, the lease period has been extended upto 31.03.2030 vide letter no. III(A) SM-02/ 2004/ 3308/ SM, Bhubaneswar dated 18.04.2015 issued by Steel & Mines Department, Govt. of Odisha. Subsequently the supplementary lease deed has been executed on 27.11.2016 and registered on 28.11.2016 with registration no. 11031600471, Barbil.

6. PP reported that the mining operations at Katamati has been done in two parts (i.e. Eastern Part & Western Part) consisting of Pit-I in eastern part and Pit-II & III in western part. Mining Operation will be mechanized with drilling and blasting by shovel-dumper combination. However, the mining operations in Western part of the mine have been temporarily suspended due to forest clearance. After getting the forest clearance, the preparatory work will start in the fresh virgin area to open up new benches. The mining will be done in two part i.e eastern part and western part. A new pit named as Pit-IV in the Eastern Part will be opened after getting the forest clearance. The mining operation will be fully mechanized open cast mining method. Initially, Dozer, Grader etc will be deployed to expose the area for preparation of drill blocks. Blast hole drill will be deployed to drill the hole. Shovel- Dumper combination will be used to excavate and transport the material to the designated place. A part of Waste material generated during course of mining will be used for leveling the benches and maintaining the haul roads. Balance quantity will be stacked at the proposed site. PP reported that during the expansion project waste will be generated both from mining & beneficiation. The waste from mining is overburden generated during extraction of ore, which shall be stacked separately and reclaimed after adequate plantations in the area as per progressive reclamation activities. During expansion from FY-18 to FY-23 the planned waste of 6.1 million tons, 9.95 subgrade shall be generated. Some part of additional material shall be re-handled as per mine plan. All the waste shall be separately stacked.
7. The ore is beneficiated by wet process & dry process as per natural ore qualities present in the mine. In the wet process, the feed constitutes hard ore, soft ore and flaky ore, which is fed in pre-determined proportion while in the dry process the feed constitutes flaky ore and blue dust. The ore beneficiation plant shall be zero discharge plant. No effluent shall be generated from mining, beneficiation and other activities. Any waste water generated shall be recycled & reused.
8. Katamati iron mine has obtained for ground water abstraction of 460 KLD. As per present assessment the future requirement of water would be ~4800 KLD and permission for same would be obtained from competent authority before such drawl. The water shall be used for water sprinkling & dust suppression, wheel washing green belt development apart from mineral beneficiation. The source of water for mine is Baitarini river &JojoNalla.

9. PP reported that there are no national parks, wild life sanctuaries and eco-sensitive zones in the proposed study area. PP reported that the total cost of the project is 150 Cr, and the CER would be 2.0cr as per the Ministry Om 22-65/2017- IA.III dated 1st May 2018.
10. PP submitted the affidavit Certificate no 06AA 488093 dated 14.10.2019 by way of the undertaking in compliance to the Ministry's O.M No 3- 50/2017 -IA. II(M) dated 30.05.2018 to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
11. Based on the discussion held and document submitted Committee **recommended for issuing Standard Term of Reference along with the following specific Term of Reference and additional specific conditions as recommended by CSIR-NEERI on carrying capacity study as per Annexure IV.** Subject to examine the violations w.r.t. Hon'ble Supreme Court Judgment dated 02.08.2017 in the matter of Common Cause Vs Union of India and Ministry's notification 804(e) dated 14.03.2017

Specific Term of Reference:

- I. PP need to bring out the cumulative Impact Assessment for both the Mines together for Katamati and Noamundi Iron mine
- II. PP should provide in the EIA Report details of all the statutory clearances, permissions, No objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after grant of EC.
- III. PP should submit the revenue plan for mining lease, revenue plan should be superimposed on the satellite imaginary clearly demarcate the Govt. land, private land, agricultural land etc.
- IV. PP should submit the real-time aerial footage & video of the mining lease area and of the transportation route
- V. PP should submit the detailed plan in tabular format (year-wise for life of mine) for afforestation and green belt development in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt

development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Presently in India there are many agencies which are developing forest in short interval of time. Thus, for the plantation activities details of the experts/agencies to be engaged needs to be provided with budgetary provisions.

- VI. PP should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.
- VII. PP should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.
- VIII. PP should submit the year-wise, activity wise and time bound budget earmarked for EMP, occupational health surveillance & Corporate Environmental Responsibility. The capital and recurring expenditure to be incurred needs to be submitted.
- IX. PP should submit the measures/technology to be adopted for prevention of illegal mining and pilferage of mineral. PP should submit the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.
- X. PP should clearly show the transport route of the mineral and protection and mitigative measure to be adopted while transportation of the mineral. The impact from the center line of the road on either side should be clearly brought out supported with the line source modelling and isopleth. Further, frequency of testing of Poly Achromatic Hydrocarbon needs to be submitted along with budget. Based on the above study the compensation to be paid in

the event of damage to the crop and land on the either side of the road needs to be mentioned. The PP should provide the source of equations used and complete calculations for computing the emission rate from the various sources.

- XI. PP should clearly bring out that what is the specific diesel consumption and steps to be taken for reduction of the same. Year-wise target for reduction in the specific diesel consumption needs to be submitted.
- XII. PP should bring out the awareness campaign to be carried out on various environmental issues, practical training facility to be provided to the environmental engineer/diploma holders, mining engineer/diploma holders, geologists, and other trades related to mining operations. Target for the same needs to be submitted.
- XIII. The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry. After perusal of Standard EC conditions if agreed PP should also submit an undertaking by the way of affidavit for Compliance of Standard EC conditions already prescribed by the Ministry vide O.M. No and Specific condition if prescribed by the EAC/MoEF&CC.
- XIV. The PP should ensure that only NABET accredited consultant shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that accreditation of consultant shall be valid during the collection of baseline data, preparation of EIA/EMP report and during the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and PP and consultant are fully accountable for the same.
- XV. The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
- XVI. All the certificates viz. Involvement of Forest land, distance from protected area, list of flora & fauna should be duly authenticated by Chief Wildlife Warden & Forest Department. The Certificate should bear the name,

designation, official seal of the person signing the certificate and letter number. The EIA/EMP report should cover the cumulative impacts of own cement plant, other cement plant and mines in the study area. 17). The PP should provide the status of the Court Case (Case No 4056/2014) in the EIA/EMP report.

2.11 CAK Limestone Mine of M/s. Adani Cementation Limited with production of 5.0 MTPA limestone in the mine lease area of 408.138 ha located at Mandal Kolimigundla of District Kurnool, Andhra Pradesh.

File no.: J-11015/72/2019-IA-II(M), Proposal no.: IA/AP/MIN/121935/2019- for TOR

The proposal of **M/s. Adani Cementation Limited (ACL)** is for production of 5.0 MTPA of limestone from ML Area 408.138 Ha located at Mandal Kolimigundla of District Kurnool, Andhra Pradesh. The Mining Lease area is a part of the Survey of India Topo-Sheet No. 57J/1 & 57I/4. The site falls between Latitude 14°59'00.86" N - 15°01'1.39" and Longitude 78°04'36.97"E - 78°06' 4.86"E and is in seismic zone-II.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", Project or Activity 1(a) as the Mining lease area is more than 100 Ha. The PP applied online vide proposal No. **IA/TG/MIN/121935/2019** dated 16.11.2019 and submitted Form-1, Pre-feasibility Report. The proposal is now placed in EAC meeting held during 19-20 December, 2019.
3. PP submitted that ACL has been allotted CAK Limestone Mining Block, vide a letter of intent INC01- MG0MAJM/2/2019-M-III dated January 22, 2019, spread across three villages i.e. Chintalayapalle, Abdullapuram and Korumanipalle Village in Kolimigundla Mandal of Kurnool District, Andhra Pradesh by the Government of Andhra Pradesh through online auction process.
4. PP submitted that proposal does not involve approval/clearance under the Forest (Conservation) Act, 1980, wildlife (Protection) Act, 1972 and C.R.Z notification, 2011. There is no wildlife sanctuary, national park, Tiger Reserve, Elephant Corridor, eco sensitive area within the core zone as well as the buffer zone.
5. PP submitted that the proposed method of working is opencast mechanized mining with deep hole drilling & blasting. On the basis of topography,

deposition, structure and mining / geological considerations, mining is proposed by making benches of 10.0m height with optimum width and overall 45 degree bench slope with the deployment of heavy earth moving equipment with drilling & blasting. The blasted material will be crushed and transported to the proposed Cement Plant through road/ conveyor. The waste generated during mining will be stacked in temporary dump yards and will be used for back filling at progressive/conceptual stage. Generated domestic waste water from office building will be treated through modular STP. It is proposed to achieve maximum rate of limestone production up to 5 MMTPA. It is estimated that life of mine will be around 21 years considering the cement grade mineable reserve. Thus sufficient reserves of limestone are available for proposed life of the plant

6. PP submitted that the estimated water requirement for limestone mining will be around 250KLD, which will be sourced from Oak Reservoir and ground water.
7. PP submitted that total 170 manpower will be required for the project.
8. Based on the discussion held and document submitted the Committee **returned the proposal in present form** as PP did not mention the total excavation in the Form-1. The Committee is of the view that PP should submit the revised form-1 clearly mentioning the total excavation [mineral; OB/IB/SB/Waste; top soil etc.], provide the capacity of the crusher, mode of transport of material (by road or conveyor belt), and information on intersection of ground water level, proposal for extraction of ground water for the mining. PP needs to submit proof of application made to CGWA for seeking permission for groundwater withdrawal or intersection, as the case may be.

2.12 Precious Stone (Iolite) of M/s Manikeswari Gems (P) Ltd with production of 158 kg from 13200 cum of cordierite schist per annum in the mine lease area of 14.394ha. located at village Kutingpadar, Junagarh, Dist Kalahandi, Odisha.

File J-11015/73/2019-IA. II(M) Proposal IA/OR/MIN/106950/2019 - for consideration ToR

The proposal of M/s Manikeswari Gems (P) Ltd is for production of 158 kg of precious stone (Iolite) from 13200 cum of cordierite schist per annum in the mine lease area of 14.394ha located at village Kutingpadar, Junagarh, Dist Kalahandi, Odisha. The mine lease area is lies in between longitude and

latitude are 83002'22.1" to 83002'45.2"(E) and 19046'38.6" to 1946'49.1"(N). The mine lease area is located in survey of India toposheet no. F44-F-1(65M/1).

2. The Project is Category 'A' project as the mining lease area is located near Karlapati Wild life Sanctuary which is about 3.2 Km from the lease area and therefore general conditions is applicable.
3. PP applied online on PARIVESH Portal along with the FORM-I and PFR, the proposal was considered in the EAC in its meeting held during December 19-20, 2019.
4. PP submitted that the lease area is 14.394 ha of non-forest land. The lease was executed on 12.1.2005 for 20 yrs in favour of M/s Manikeswari Gems (P) Ltd. and will expire on 11.1.2025 .But due to present scenario as per MM (D&R) Amendment Act 2015 ,the period of lease is deemed to be up to 11.1.2055.
5. PP reported that the mine was operated from 2004-05 to 2008-09 and it was stopped from 19.03.2010 onwards as the Consent To Operate was withdrawn on 06.01.2010 by State Pollution Control Board, Odisha as PP was operating the mine without prior environmental clearance. It was advised to obtained Environmental clearance.
6. PP submitted the production details from 2004-05 to 2008-09

Financial year	Production Quantity (Kg)	Remarks
2004-05	Nil	No EC was obtained and PP carried out the mining operations. The mine was closed from 19.03.2010
2005-06	15	
2006-07	28.5	
2007-08	102.8	
2008-09	860	
Total	1006.3	

7. The Committee observed that the instant proposal is a case of violation as the project was in operation with environmental clearance under EIA-1994 or EIA-2006. The Committee **return the proposal in present form** and suggested Ministry to take appropriate action in this regard.

2.13 Expansion of Noamundi Iron ore mine of M/s Tata Steel Limited from 10 MTPA to 19 MTPA (ROM) with total excavation of 27.0 MTPA (ml area 1160.06 ha) along with increase of Iron ore beneficiation plant capacity (feed to plant) from 18 MTPA to 27 MTPA total project area is 1230.42 halocated at Mahudi, Balijore,

Korta, Noamundi, Sarbil and Barabalijori villages, West Singhbhum District, Jharkhand.

**[File No. J-11015/104/2011-IA-II(M); Proposal No. IA/JH/MIN/123625/2019
Consulatnt- Vimta Labs Limited) - Consideration of TOR.**

The proposal of M/s Tata Steel Limited is for Expansion of Noamundi Iron ore mine from 10 MTPA to 19 MTPA (ROM) with total excavation of 27.0 MTPA (ml area 1160.06 ha) along with increase of Iron ore beneficiation plant capacity (feed to plant) from 18 MTPA to 27 MTPA total project area is 1230.42 ha located at Mahudi, Balijore, Korta, Noamundi, Sarbil and Barabalijori villages, West Singhbhum District, Jharkhand. The latitude and longitude of the mine lease area lie between 22°05'N & 22°10'N and 85°25'E & 85°35'E and the Survey of India Top sheet number is 73 F/8 & 73 F/12. The project is located in Seismic Zone -II.

2. The Project is Category A project as the mining lease area is more than 100 Ha as per S.O. dated 14.08.2018. The Proposal also involved Mineral Beneficiation (Wobbler). Due to this PP applied in Form-1 under Schedule 1(a) - Mining of minerals activity & 2(b)- Mineral beneficiation. The information submitted by the project proponent and observation of the Committee are as follows:
3. Ministry had earlier accord environmental clearance to this project on 18.05.1994 and 06.04.2005. Further Ministry has granted the Environmental Clearance for enhancement of production of iron ore from 11015 /104 /2011-IA.II (M) dated 10.06.2013 for production of 10 MTPA of ROM and expansion of beneficiation plant from 10 MTPA to 18 MTPA with dispatch. The pphas obtained their CTO vide letter No JSPCB/HO/RNC/CTO-1162982/2017/779 dated 13.06.2017 for production of 10 MTPA of ROM and Beneficiation of 13 MTPA of iron ore.
4. The total project area is 1230.42 ha, out of which 762.43 ha is Protected Forest land is falling in the Noamundi and Kurtan Reserve Forest, 391.40 ha (in Lease 355.78 ha + Outside lease 35.62 ha) is government land, 76.59 ha (41.85 ha + Outside lease 34.74 ha) is private land. PP reported that out of total project area 1160.06 ha is for mine lease area and 70.36 ha is for beneficiation plant. FC has been granted over an area of 370.92 ha for mining purpose vide no 8-279, 1985 FC Pt Dated 04.09.2014 and the FC over balance area of 383.37 Ha is in advanced stage of approval (recommendation for grant of Stage I submitted by State Government to MoEF on 14th Sept 2018). Noamundi Iron ore mine's lease was originally granted from 01.01.1922 for a period of 30 years over an area of 1160.06 ha. 1st Renewal for 30 years w.e.f. 01.01.1952 over an area of 1160.06 ha. 2nd Renewal over an area of 1160.06

ha granted by Govt of Bihar vide their memo no.4795 dated 01.09.1984 and lease deed executed on 20.10.1985. Third Renewal of lease was applied on 17.12.2009 and State Government renewed the lease over a reduced area of 768.55 Ha on 13.12.2014. Further the states Government extend the Noamundi Mine up to 31.03.2030 in line with the MMDR Amendment Ordinance 2015 over the entire lease area of 1160.06 Ha. However, the same was withdrawn vide letter no `1613 dated 31.07.2015. The withdrawal was challenged by Tata Steel in High Court of Jharkhand vide WPC 3768 of 2015 filed on 12.08.2015. The court vide its order dated 28.06.2018 directed the State Government to decide on the representation of Tata Steel which is already pending before the State of Jharkhand in accordance with law and in light of Section 8A(5) of the MMDR Act 1957. The matter is under consideration of State Government for renewal/extension of the lease.

5. The mine working will be opencast by mechanized method involving drilling and blasting. The mineral is being transported through dumpers up to the mineral beneficiation plant and thereafter the beneficiated Ore is transported 4km through conveyor up to railway siding. The topography of the area is undulated and hilly area at an elevation above mean sea level ranging from 506m-736m RL and the ground water level is at 506m AMSL. There are three working pits namely (i) Hill No 5&6(Eastern Pit), (ii) Hill No. 3&4(Eastern Pit), and (iii) Western Pit. The ultimate working depth for Hill No.5&6 will be 588m AMSL, for hill no 3 & 4 will be 540m AMSL and for Western Pit, it will be 522m AMSL. The water table during the post monsoon is reported at 496m AMSL. The mine working will not intersect ground water table. PP reported that the subgrade mineral 25.32 million tonnes and 7.5 million tonnes were generated as on 01.04.2019 from the existing mine and the same is stacked separately in subgrade dump No 1. PP also reported that during expansion period FY-2019, FY-2020 & FY-2021 total 5.19 million tonnes, 5.17 million tonnes & 8 million tonnes waste will be generated. The generated waste and overburden shall be stacked separately and reclaimed after adequate plantations in the area as per progressive reclamation activities. PP reported that there will be 3 more waste dumps namely: waste dump No 1, waste dump No 2, waste dump No 3 and waste dump No 4, during the plan period. PP also proposed to excavation of northern part of Hill 3 & 4 and its ultimate pit limit and the area would be backfilled by waste encountered during mining and will be named Waste dump No 3. Waste dump No 4 is proposed towards south western side from the western pit and lies in the forest area for which the company has already sought for diversion. PP also submitted that Plantation will be raised in an area of 990.601ha at the end of the mine life and an area of 93.89 ha will be developed as water body during the post mining stage.

6. PP reported that there are no national parks, wild life sanctuaries and eco-sensitive zones in the proposed study area. Three reserve forests are within 5 Km from ML boundary. The PP has submitted the Details of Water Bodies within 10 km radius are Betlara Nallah at 0.2 Km in North-west, Mahadev Nallah at 0.4 Km in South-west, Sona river/Kundra at 6.3 km in South, Baitairini River at 8.1 Km in South-East, Karo River at 10.5 km in west and Kumrita Nallah at 11.0 km in North direction respectively.
7. The peak water requirement of the project is estimated as 29000m³ per day which will be obtained from the surface water (Baltanrni Rivver and Jojo Nallah). The PP has mentioned that Baseline study area is under progress for Post Monsoon season from 1st Oct. 2019 to 31st Dec. 2019 by Vimta Labs Ltd.
8. Total estimated total cost of the expansion project is Rs 5,558 Crores and as per Corporate Environment Responsibility (CER) guideline dated 1st May 2018 of MoEF&CC no. 22-65/2017-IA.III, the total environmental cost for Brownfield project is approximately 14 crores.
9. PP submitted the affidavit Certificate no IN-DL40157510542300Q dated 20 July, 2018 by way of the undertaking in compliance to the Ministry's O.M No 3-50/2017 -IA. II(M) dated 30.05.2018 to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
10. Based on the discussion held and document submitted, Committee **recommended to prescribe Standard ToR along with additional ToR** and subject to conforming the following:
 - I. Ascertain the violations w.r.t. Hon'ble Supreme Court Judgment dated 02.08.2017 in the matter of Common Cause Vs Union of India and Ministry's notification 804(e) dated 14.03.2017.
 - II. Submission of letter from Forest Department, Government of Jharkhand stating that whether the mine leases area is coming under conservation/no mining zone or mining zone as per the Management Plan for Sustainable Mining (MSPM) in Saranda and Chaibasa in Singhbhum District, Jharkhand.

Additional TOR's

- I. PP need to bring out the cumulative Impact Assessment for both the Mines to gather for Katamati and Noamundi Iron mine

- II. PP should submit an undertaking by way of affidavit as required as per Ministry's O.M No 3-50/2017 -IA. II(M) dated 30.05.2018 to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- III. PP should provide in the EIA Report details of all the statutory clearances, permissions, No objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after grant of EC.
- IV. PP should submit the revenue plan for mining lease, revenue plan should be superimposed on the satellite imaginary clearly demarcate the Govt. land, private land, agricultural land etc.
- V. PP should submit the real-time aerial footage & video of the mining lease area and of the transportation route
- VI. PP should submit the detailed plan in tabular format (year-wise for life of mine) for afforestation and green belt development in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Presently in India there are many agencies which are developing forest in short interval of time. Thus, for the plantation activities details of the experts/agencies to be engaged needs to be provided with budgetary provisions.
- VII. PP should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.

- VIII. PP should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.
- IX. PP should submit the year-wise, activity wise and time bound budget earmarked for EMP, occupational health surveillance & Corporate Environmental Responsibility. The capital and recurring expenditure to be incurred needs to be submitted.
- X. PP should submit the measures/technology to be adopted for prevention of illegal mining and pilferage of mineral. PP should submit the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.
- XI. PP should clearly show the transport route of the mineral and protection and mitigative measure to be adopted while transportation of the mineral. The impact from the center line of the road on either side should be clearly brought out supported with the line source modelling and isopleth. Further, frequency of testing of Poly Achromatic Hydrocarbon needs to be submitted along with budget. Based on the above study the compensation to be paid in the event of damage to the crop and land on the either side of the road needs to be mentioned. The PP should provide the source of equations used and complete calculations for computing the emission rate from the various sources.
- XII. PP should clearly bring out that what is the specific diesel consumption and steps to be taken for reduction of the same. Year-wise target for reduction in the specific diesel consumption needs to be submitted.
- XIII. PP should bring out the awareness campaign to be carried out on various environmental issues, practical training facility to be provided to the environmental engineer/diploma holders, mining engineer/diploma holders, geologists, and other trades related to mining operations. Target for the same needs to be submitted.
- XIV. The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry. After perusal of Standard EC conditions if agreed PP should also submit an undertaking by the way of affidavit for Compliance of Standard EC conditions

already prescribed by the Ministry vide O.M. No and Specific condition if prescribed by the EAC/MoEF&CC.

- XV. The PP should ensure that only NABET accredited consultant shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that accreditation of consultant shall be valid during the collection of baseline data, preparation of EIA/EMP report and during the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and PP and consultant are fully accountable for the same.
- XVI. The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
- XVII. All the certificates viz. Involvement of Forest land, distance from protected area, list of flora & fauna should be duly authenticated by Chief Wildlife Warden & Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and letter number. The EIA/EMP report should cover the cumulative impacts of own cement plant, other cement plant and mines in the study area. 17). The PP should provide the status of the Court Case (Case No 4056/2014) in the EIA/EMP report.

2.14 Rajanka limestone Mines Area 145.37Ha: (F block: 81.50Ha & F2 lease: 63.87 Ha with Limestone Production Capacity of 2.11 Million Tons per Annum and waste / topsoil of 512120 Lakhs CuM per annum with existing Crushers with capacity of 1100 TPH at Village Kondwa, Dokatta & Rajanka Tehsil Tonto, District- West Singhbhum, Jharkhand by M/s ACC Ltd. (Old File No. J11015/129/2001-IA.II) (File No. J-11015/155/2018-IA.II(M); Proposal IA/JH/MIN/81292/2018)

Consideration of Proposal under S.O. (E) 1530, dated 06.04.2018.

The proposal of M/s ACC Ltd., is for Rajanka limestone Mines Area 145.37Ha (F block: 81.50 Ha & F2 lease: 63.87Ha) with Limestone Production Capacity

of 2.11 Million Tons per Annum and waste / topsoil of 512120 Lakhs Cu M per annum (as per approved mining plan) with existing Crushers with capacity of 1100 TPH at Village Kondwa, Dokatta & Rajanka Tehsil Tonto, District- West Singhbhum, Jharkhand of M/s. ACC Ltd. The area falls in the Survey of India Toposheet No. Latitude-73 F/11 and extent of F and F2 block is Latitude- 022°24'9.81"N to 22°25'15.66"N & Longitude 85°43'36.46"E to 85°44'20.92"E, F Block: Latitude- 22°24'9.59"N to 22°25'4.25"N, Longitude- 85°43'39.25"E to 85°44'17.65"E while F2 Block: Latitude- 22°24'31.46"N to 22°25'15.47"N, Longitude- 85°43'36.02"E to 85°44'21.17"E.

2. The proposal was placed in the EAC meeting held during 15th -16th November, 2018. The Committee noted that as per the notification dated 06.04.2018; the Project Proponent applied for ToR before 5th October 2018 and submitted the Form-1 and Pre-Feasibility Report. After due deliberation the committee noted that PP has not submitted all the documents required as per Annexure-III. As the PP did not submit the complete information and documents, the Committee **deferred** the proposal and asked the PP to submit the complete information as follows:

(i) Information as per Annexure-III of agenda (ii) Past production details of the mine from the inception of the mine till date duly authenticated by the State Mines and Geology Department. (iii) PP should submit an undertaking by way of affidavit as required as per Ministry's O.M No 3-50/2017 -IA. II(M) dated 30.05.2018 to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. (iv) Valid executed copy of mining lease valid up to 31.3.2030.

3. PP submitted the information vide letter no ACC/CH/MoEF/Q/19-91 dated 04.11.2019 online on PARIVESH portal, accordingly the proposal was considered in the EAC in its meeting held during 19-20 December, 2019 wherein PP submitted the following:
 - I. The past production details dated 21.05.2019 for Block F and F2 from 1993-1994 till 2019
 - II. The Scheme of Mining and Progressive Mine Closure Plan of Rajanka Limestone Mines for lease area -598.88ha for the period of 2005-06 to 2009-10. As per mining plan appears that PP had produced the minerals of limestone and shale, however PP had taken the EC only for the Limestone.

- III. An undertaking by way of Affidavit A330312 dated 12.11.2018 in compliance to the Ministry's OM no.3-50/2017-IA.II(M) dated 30.05.2018 and committed to comply the Hon'ble Supreme court order dated 02.08.2017 in the matter of Common Cause Vs Union of India.
- IV. A supplementary lease deed for extension for F block (81.50ha) executed in between Deputy Commissioner, West Singhbhum, Chaibasa and Director ACC Limited on 23.09.2017 valid upto 31.03.2030. PP submitted the supplementary lease deed for F2 Block granted on 11.08.2017 valid upto 31.03.2030.
5. The Committee observed that there is two mine leases. Two agreement but only one EC. F block having mine lease area of 81.50 ha and F2 block having mine lease area of 63.87 ha). Therefore, Committee is of the view that the PP should either get the lease deed agreement or apply for separate ToR/EC for each lease agreement.
6. PP submitted that the Mine was operational since 1992- 1993 till obtaining the environmental clearance on 28.12.2004. Based on NOC from Jharkhand state Pollution Control Board / Bihar State pollution control Board. Copies of NOC are not presently available from 1992-93 till 2001- 02. PP submitted the CTO/CTE from 2003 till 2020.
7. In view of the above the Committee **deferred** the proposal for want of requisite information from PP and ask the Ministry to examine the proposal for requirement of NBWL & Forest Clearance and to examine the proposal in light of SC Order dated 2.08.2017 and S.O. 141(E) dated 14.03.2017.

2.15 Proposal under the provision of Notification dated 06.04.2018 and for expansion of production capacity from 25000 TPA to 100000 TPA (Feldspar & Quartz) of Kalera Quartz & Feldspar Mining Project (M.L. No. 07/95; Area: 135.325 Ha) located in Village: Kalera, Tehsil: Kekri, District: Ajmer, Rajasthan by M/s RBS Mining Pvt. Ltd.

**File no: J-11015/170/2018-IA. II(M), Proposal No: IA/RJ/MIN/81378/2018
-Reconsideration of ToR**

The proposal of M/s RBS Mining Pvt. Ltd. is for expansion of production capacity from 25000 TPA to 100000 TPA (Feldspar & Quartz) of Kalera Quartz

& Feldspar Mining Project (M.L. No. 07/95; Area: 135.325 Ha) located in Village: Kalera, Tehsil: Kekri, District: Ajmer, Rajasthan.

2. The project falls under Schedule 1(a) of mining and is a Category- "A" as the mining lease area is greater than 100 Ha.
3. PP submitted that for this mining project EC was obtained in the name of Shri P.C Agarwal under the EIA Notification 1994, vide Ministry's letter No. J-11015/5/1999-IA. II (M), dated 15.07.1999 for two mining lease Kalera Mine (135.325 Ha; 25000 TPA) and Para Magra Ganeshpura Mines (M.L. No. 08/95; Area: 136.0 Ha; 15000 TPA) of mineral Feldspar & Quartz.
4. PP applied for ToR on 5.10.2018 as per provision of Ministry's Notification S.O. 1530(E) dated 6.04.2018 as the Environmental Clearance was granted under EIA Notification 1994 and submitted Form-1 & PFR. The proposal was placed in EAC meeting held during 15th November, 2018 wherein the proposal was deferred for want of requisite information. The Ministry vide letter dated 12.12.2018 requested PP to submit the information. PP uploaded the information on 26.10.2019. The proposal is now placed in EAC meeting held during 19-20 December, 2019.
5. The Committee observed that application is as per provision of S.O. 1530(E) dated 6.04.2018 made by M/s RBS Mining Pvt. Ltd and PP submitted that mining lease was transferred in the name of M/s Jai Chand Lal Daga Mines & Minerals Pvt Ltd. on 30.01.2019.
6. The proposal was deliberated by the committee based on the information submitted by PP and opined that the proposal involved expansion of production and is for consideration of compliance of notification dated 6th April 2018. The KML file submitted by PP doesn't pertain to the mine under consideration, but is of some other mines. The application made is not in the name of present lease holder. Therefore, the Committee recommended to **returned the proposal in present form** and ask the PP to apply afresh after making above mentioned corrections. The committee also recommended that the fresh application shall be considered within the provision of notification dated 6 April 2018, as the application was made within the stipulated timeline and the lease has been transferred on 30.01.2029, period during which the proposal was under consideration of Ministry.

2.16 Mining of 2732 TPA of Manganese Ore from Kawatha Manganese Mine [ML Area 26.67 Ha] located at Village – Kawatha, Tehsil Saoner, District- Nagpur Maharashtra by M/s. Rachana A Belorkar.

Proposal No IA/MH/MIN/95635/2016; File No J-11015/227/2016-IA. II (M); Consultant: Anacon Labs - EC Regarding

The proposal of M/s. Rachana A Belorkar is for production of 2732 TPA of Manganese Ore from Kawatha Manganese Mine [ML Area 26.67 Ha] located at Village – Kawatha, Tehsil Saoner, District- Nagpur Maharashtra. The mine lease area falls in the Survey of India Topo-Sheet No. 55K/15. The latitudes and longitudes of the Mine lease fall between Latitudes 21° 29' 57.810" N to 21° 29' 32.541" N & Longitudes 78° 53' 39.245" E to 78° 54' 5.703" E.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category A (General condition applicable) as the mining lease area is within 0.5 KM of the inter-state boundary of Maharashtra and Madhya Pradesh.
3. The Project Proponent applied online on 04.11.2016 vide proposal no IA/MH/MIN/60128/2016 for prescribing Term of Reference (ToR) and submitted Form-1 and Pre-feasibility report. The proposal was considered in EAC meeting held on 15-16 December, 2016, 20-21 February, 2017 and EAC in its meeting held on 23-24 October, 2017 wherein the EAC recommended the proposal for prescribing Term of Reference (ToR). The ToR letter was issued on 09.11.2017.

The Project Proponent applied vide proposal No. IA/MH/MIN/95635/2016 applied for grant of EC online on 09.08.2019 and submitted the EIA Report after conducting the Public Hearing. The proposal was placed in EAC Meeting held on 24-25 September, 2019, wherein, the EAC returned the proposal in present form due to shortcoming in the application. PP then applied a fresh vide proposal No. IA/MH/MIN/60128/2016 on 1.11.2019 and the proposal is placed in EAC meeting held during 19-20 December, 2019. The following information submitted by PP was deliberated during the meeting.

4. The proponent submitted that the prospecting license for Manganese over an area of 26.67 Ha was granted to applicant on 22-09-2008 for a period of 2 years. The said prospecting license was executed with the Collector Nagpur on behalf of the Govt. of Maharashtra on 15th January 2009 and valid up to 14th January 2011. The Letter of Intent (LOI) was granted vide letter no MMN-0915/CN99/industry-9 dated 18.01.2016 against Mining lease application dated 20th Jan 2011, from Gov. of Maharashtra. The mining lease over an area of 26.67 ha for extraction of manganese ore was executed on 16.05.2017 and valid till 15.05.2067.

5. PP submitted that Mining Plan and Progressive Mine Closure Plan of this proposed mining lease area is approved by Indian Bureau of Mines, Nagpur vide letter no. NGP/MN/MPW-1173/NGP-2016 dated 3.08.2016. The mineable reserve under Proved category is estimated about 6400 tonne and maximum production of Ore will be 2732 TPA. Detailed exploration is unbroken area is proposed in Mine lease area to enhance the Reserve quantity. The current Mining Plan is only for 5 years and area put up under mining out of total mining lease area of 26.67 Ha will be 1.5 Ha. The mined out area will be backfilled and plantation will be carried out on reclaimed area after winning all possible minerals. Life of mine on the basis of proved reserve and proposed production capacity of Manganese mineral is 5 years @2732 TPA. PP submitted that this is a new area for grant of mining lease and though the area had been prospected by trial pits, trenches and drilling but detailed prospecting operations are required for assessment of reserves and future planning. It is to drill 7 bore holes at 100 m x 100 m grid to a depth of 30 meters during the period of mine plan for further proving of Mn Ore to have clear subsurface geology of deposit/ore body which is inclined.

6. The PP submitted that the method of mining is manual opencast. The bench height will be 1.5 m and width of the benches is 1.5 M. The proposed working by putting 34 mm dia DTH holes by Drilling short holes for blasting will be having diameter of 34 mm and depth of 1.20 m. The blasting will be carried out by using proper explosives. Controlled and occasional blasting will be carried out and will be procured/purchase from approved explosives vendor. PP submitted that the waste generation in ML area will be mainly in the form of top soil and Waste rock (Rejects). PP submitted that the total excavation from the mines in next 5 years will be 21038.34 tonne which includes [3065.52 Tonne of Top Soil; 6400 Tonne Manganese [ROM]; 11572.82 Tonne of Waste]. PP submitted that the mineral waste will be dumped on one side of the area earmarked for ore stacking yard in the non- mineralized area. The waste will be loaded in to tippers by labors and same will be dumped at designated dumping place, the dumps height will be maximum 6 meter, and plantation will be done on inactive site of dump after dumping and stabilization. The soil will be temporarily stacked within the mine lease area and will be used for spreading on the safety barrier for plantation. The dumps will be suitably stabilized by means of proper terracing in the retreating fashion and after attaining the proposed height, plantation would be carried out. PP also submitted that location of Dump No1 will be near Border Pillar no. 2 (78° 53' 59.593" E 21° 29' 34.649" N) & Dump No 2 will be near Border Pillar no. 6 (78° 53' 57.515" E 21° 29' 38.492" N). Plantation in safety zone and outside the lease under CSR activity and haul road dressing. The voids so left will be filled with rain water and treated as water reservoir. PP submitted

that the garland drains will be constructed around the mine pits, surface dumps and along the mine lease boundary will be connected to a series of settling tanks. This will facilitate proper settling of the sediments / silt carried with the storm water run-off before discharging / supplying the water to the farmers.

Observation of EAC: The Committee observed that the yearly total excavation comes out to be 4208 Tonne [2732 Manganese (ROM) & 1476 Waste/Top Soil] and maximum dispatch of Mn ore from the mine should not be more than 2732 Tones (ROM).

7. PP submitted that maximum depth of working will be 4 m bgl. The depth of ground water level near mining lease area in pre & post monsoon are found to be 7.5 to 8.5 mbgl & 5.5 to 6.5 mbgl respectively. PP submitted that the source of water required will be outsourced from water supplier by mobile water tankers. Mining activity will not intersect ground water table hence permission under Ministry's O.M No. 21-103/2015-IA-III is not required. PP submitted that the total water requirement for this project is 15 KLD (8 KLD for dust suppression, 1.0 KLD for Domestic use, 6.0 KLD for plantation).

Observation of EAC: The Committee is of the view that PP should outsource the water from the legal sources only.

8. PP submitted that total 570 saplings (more than 100 saplings /year) covering 0.2850 Ha area in the next 5 years. PP submitted that species such as *Bel*, *Dhavra*, *Neem*, *Apta*, *Palas*, *Shankhasur*, *Karvand*, *Amaltas*, *Shisham*, *GulMohar*, *Amla*, *Wad*, *Sewan*, *Jaswand*, *Bakul*, *God Neem*, *Karanj*, *Jambhul*, *Chinch*, *Babul* etc. shall be planted. In addition to this for stabilization of dumps and its slopes grasses such as *ApludaSp.*, *Agrostis tenella*, *A. stolonifera*, *Agave Americana*, *Cynodon dactylon* etc. shall be planted. PP submitted that all 570 saplings will be planted in safety barrier of 7.5m. Safety zone covering the area from BP1 to BP3 falling between latitude 21° 29' 32.541" N to 21° 29' 34.835" N & longitude 78° 53' 59.446" E to 78° 53' 59.598" E will be taken up for the aforesaid plantation in the plan period. PP submitted that the budget earmarked for the plantation shall be Rs 2.0 Lakh @ 0.40 lakh/annum for five years.

Observation of EAC: Committee is of the view that amount proposed under plantation shall be kept in separate account and PP should cover at least 0.2850 Ha area under plantation within 5 years from the date of grant of EC. The Committee also suggested that plantation cost should be enhanced to 3.0 Lakh i.e. 0.60 lakh/annum for five years.

9. PP submitted that the Mining lease area of project is 26.67 Ha which spreads in Kh No. 251, 253, 254, 255, 259, 27, 268, 269, 271, 272 in Kawatha Village, Tehsil Saoner, District Nagpur, Maharashtra. No notified forest area falls within the Mine Lease area. PP also submitted a letter No Desk-11/Conservator of Forest/C.R./1895/17-18 Nagpur dated 02.08.2017 from Deputy Conservator of Forest wherein it has mentioned that Kh No. 251, 253, 255, 259, 27, 268, 269, 271, and 272 in Kawatha Village, Tehsil Saoner, District Nagpur, Maharashtra is not declared as reserve forest. However, Kh No. 254 is measuring 1.0 Ha as per revenue record and status is private land and as per list of zudapi jungle received from revenue department the area is admeasuring 1.31 Ha and statutory status is zudapi jungle. It has also mentioned in the letter that Competent Authority of Revenue Department should take proper decision by verifying at its level, the necessary documents with respect to the difference as regard to statutory status/area of the said land. In the same letter it is mentioned that distance of mining lease from boundary of wildlife sanctuary is 12 KM. PP also submitted a letter No Reader-I/Tha.Saoner/OD-1371/2017 dated 28.08.2017 issued by Thasildar, Saoner wherein it has mentioned that the agricultural land bearing Survey No 254 admeasuring 1.0 Ha, assessment 1.3, Occupant Class-1, situated and Mauza – Kawatha is private agricultural land.

Observation of EAC: The Committee noted that Member Secretary informed the Committee that DSS has already been done during ToR Stage and based on the information submitted by PP ToR was granted.

10. PP submitted a letter No Desk-11/Conservator of Forest/633/19-20 Nagpur dated 30.07.2019 from Deputy Conservator of Forest wherein list of flora & fauna and rare, threatened and endangered species is provided. As per the list there are 4 schedule-1 species viz. Indian gazelle, Indian Rock Python, Monitor Lizard, and Indian peafowl. PP previously submitted the wildlife conservation plan with a budget of Rs 16 Lakh for 5 years for 2 schedule-1 species viz. Indian gazelle & Indian peafowl. The same was forwarded by Chief Conservator of Forest vide its letter No. Desk-1/5/Land/C.R. 35/9-20/397 Nagpur dated 9.07.2019 for the approval of Principal Chief Conservator of Forest (Wildlife). PP submitted letter No. Desk-23(2)/WL/Survey/C.R.30(2019)/2812/2019-20 dated 24.10.2019 from the office of Principal Chief Conservator of Forest (Wildlife) addressed to Chief Conservator of Forest wherein the approval for the conservation plan of Rs 16.0 Lakh was provided. PP also submitted the proof of conservation plan for all the four schedule-1 species viz. Indian gazelle, Indian Rock Python, Monitor Lizard, and Indian

peafowl with a budgetary provision of Rs 18.0 Lakh to Chief wildlife warden vide its letter No RB/Kawatha/2019/07 dated 22.10.2019

11. Being a Major Mineral there is no requirement of District Survey Report.
12. 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, 2017. The monitoring results of ambient air, surface water, soil, ambient noise and ground water for the month of October 2017-December 2017 have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples. PP also submitted the resultant concentration of various pollutants in controlled and uncontrolled scenario, which are well within the prescribed NAASQ limits.
13. The Project Proponent reported that the Maharashtra State Pollution Control Board conducted Public consultation/hearing for the proposed Kawatha Manganese Mine (Production capacity - 2732 TPA and ML Area 26.67 Ha) on 19.10.2018 at 12.00 noon at Grampanchayat office, Kawatha, Tal. Saoner, Dist. Nagpur of Maharashtra State. The advertisement for public hearing was published in "The Hitwada & Maharashtra Times" on 18.09.2018. The Public hearing was conducted under the chairmanship of Shri Ravindra Khajanji, Additional District Collector, Nagpur. The issues raised during public hearing were also deliberated during the meeting which includes Effect on agricultural crop production, Road maintenance, Employment to local people, Ownership of land in Mine Lease area and Ground water depletion. During the public hearing PP submitted that i) Capital cost of Rs. 5 lakh & Recurring cost of Rs. 3.10 lakh is allocated for Air pollution control, ii) Road maintenance is included in budgetary provision of Rs. 1.3 Lakhs per year made under CSR for social welfare activities, and the workers will be paid as per prevailing minimum wages act or as per demand supply whichever is higher. In addition to CSR, PP also earmarked Rs 6.1 Lakh for corporate environment responsibility. PP also submitted that a budget of Rs 2.96 Crore shall be kept towards the land compensation of the private land falling in the mining lease area.
14. PP submitted that budget earmarked under Corporate Environmental Responsibility (CER) is Rs 6.1 Lakhs which includes i) Rs 1.4 Lakh for Rainwater Harvesting in School, ii) Rs 1.3 Lakh for Solar Power System in School, iii) 0.8 Lakh for Running water in Toilet, iv) Rs 1.0 Lakh for RO water System with storage containers, v) Rs 0.6 Lakh Plantation in school open land, vi) Rs 1.0 Lakh for Environmental Awareness Program in School.

15. There is no household in the mine lease area. Hence, there is no R&R required in the proposed manganese mine. However, a budget of Rs 2.96 Crore is proposed for the land compensation to private land owner within the mining lease area.
16. The Project Proponent submitted that the budget earmarked for Environmental Management Plan (EMP) shall be ₹ 29.05 Lakh (Capital) & ₹ 10.0 Lakh (recurring/annum) which includes i) Rs 5.0 Lakh (Capital) & Rs 3.10 Lakh (recurring) for Air Pollution Control - Water sprinkling on haul road & plantation, ii) Rs 3.0 Lakh (Capital) & Rs 0.7 Lakh (recurring) for Water Pollution Control (Settling tank, Garland Drains, etc.), iii) Rs 0.05 Lakh (Capital) & Rs 1.0 Lakh (recurring) for Noise Pollution Control (Ear plugs, Machinery maintenance etc.), iv) Rs 1.0 Lakh (recurring) for Environmental Monitoring, v) Rs 2.0 Lakh (Capital) & Rs 0.8 Lakh (recurring) for Green belt Development/ plantation within ML area, vi) Rs 3.0 Lakh (Capital) & Rs 0.6 Lakh (recurring) for Occupational Health & Safety Measures, vii) Rs 3.0 Lakh (Capital) & Rs 0.6 Lakh (recurring) for Socio-economic welfare activities in nearby villages, and viii) Rs 16.0 Lakh (Capital) for Conservation Plan for Schedule-I species.

Observation of EAC: The Committee is of the view that budget for Conservation plan is Rs 18.0 Lakh and therefore capital cost of EMP should be Rs 31.02 Lakh. Committee also observed that PP submitted the monitoring schedule and suggested that air, water, noise and soil quality monitoring should be done quarterly. Ground water table should be monitor pre-monsoon and post monsoon. In addition to this PP should also monitor the concentration of Manganese in air, water and soil samples. Thus, the recurring budget for environment monitoring should be atleast 3 lakh/annum. Thus, the EMP cost thus comes out to be Rs 31.02 Lakh (capital) and Rs 12.0 Lakh (Recurring).

17. PP submitted that for occupational safety certain steps will be taken which involve i) Identification and assessment of the risks from health hazards in the workplace, ii) Surveillance of the factors in the working environment and working practices which may affect workers health, including sanitary installations and canteens, iii) Planning and organization of work, including the design of workplaces, choice, maintenance and condition of machinery and other equipment and substances used in work, iv) Protective tools like dust masks, ear plugs, helmets, safety boots, radium aprons/jackets, goggles, hand gloves etc. will be provided to mine workers. PP submitted that medical surveillance program will consist of i) Pre-employment medical examinations, ii) Periodic medical examinations, iii) Health & Safety awareness and training and iv) Record keeping. PP submitted that budget earmarked for Occupational

Health and Safety Plan is Rs 3.0 Lakh (Capital) & Rs 0.60 Lakh (recurring) which includes adoption of suitable pollution control measures in the mines like periodic water sprinkling to avoid the dust nuisance, Provision of pre-employment and periodic training on health and safety to all the workers in the mine, Adoption of safe working practices, Maintaining proper housekeeping at working places, Provision of necessary personal protective equipments to all mine workers, Periodic maintenance of mine machinery and transport vehicles, and Display of warning signals at strategic locations.

Observation of EAC: The Committee is of the view that manganese posing is one of the major issue and PP should monitor the concentration of manganese in air, water & soil samples. In addition to this health checkup (a complete Neurological Assessment by a Certified Neurologist and Manganese (Mn) Estimation in Blood) of each workers needs to be done annually to ascertain the impact on workers' health due to manganese mining. PP shall enhance the budget under occupational health if required.

18. PP submitted an undertaking by the way of an affidavit bearing certificate No VR 262971 dated 29.09.2019 to comply with all the statutory requirement and common cause judgment dated 2.08.2017. PP also submitted an undertaking dated 23.10.2019 that data and information given in the application, enclosure and other documents are true to best of his knowledge and belief and PP is aware that if any part of data or information submitted is found to be false or misleading at any stage the project will be rejected and clearance given if any will be revoked at his risk and cost. Consultant also submitted an undertaking dated 28.09.2019 that the EIA/EMP report is prepared by them and data and information provided in the same are factually correct and they are completely accountable for the same. If any part of the data and information submitted is found to be false or misleading at any stage, then Ministry may take necessary action through QCI-NABET including cancellation of accreditation.
19. Project Proponent submitted that the total project cost shall be ₹3.02 Crore and shall give direct employment to 20-30 persons.
20. Based on the discussion held and document submitted the EAC **recommended** the proposal of M/s. Rachana A Belorkar for grant of Environmental Clearance for total excavation of 4208 TPA [2732 Tonne Manganese (ROM) & 1476 Tonne Waste & Top Soil] for dispatch of 2732 TPA of Manganese (ROM) from Kawatha Manganese Mine [ML Area 26.67 Ha] located at Village – Kawatha, Tehsil Saoner, District- Nagpur Maharashtra. In addition to Standard EC Conditions as per Ministry's O.M. No. 22-34/2018-

IA.III dated 08.01.2019 the Committee also prescribed the following specific conditions for this project.

- i. In pursuant to Mineral Conservation and Development Rules, 2017 the PP should complete the **detailed exploration (G1 Category)** within 5 years. This EC is valid for 5 years and within 5 years PP shall get the validity of EC extended based on the proved reserves if found any.
- ii. PP shall plant at least 570 saplings (more than 100 saplings /year) covering 0.2850 Ha area in the next 5 years. The budget earmarked for the plantation shall be Rs 3.0 Lakh @ 0.60 lakh/annum for five years and the same shall be kept in separate bank account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- iii. The budget earmarked for **Environmental Management Plan (EMP)** shall be ₹ 31.02 Lakh (Capital) & ₹ 12.0 Lakh (recurring/annum) which includes i) Rs 5.0 Lakh (Capital) & Rs 3.10 Lakh (recurring) for Air Pollution Control - Water sprinkling on haul road & plantation, ii) Rs 3.0 Lakh (Capital) & Rs 0.7 Lakh (recurring) for Water Pollution Control (Settling tank, Garland Drains, etc.), iii) Rs 0.05 Lakh (Capital) & Rs 1.0 Lakh (recurring) for Noise Pollution Control (Ear plugs, Machinery maintenance etc.), iv) Rs 3.0 Lakh (recurring) for Environmental Monitoring, v) Rs 2.0 Lakh (Capital) & Rs 0.8 Lakh (recurring) for Green belt Development/ plantation within ML area, vi) Rs 3.0 Lakh (Capital) & Rs 0.6 Lakh (recurring) for Occupational Health & Safety Measures, vii) Rs 3.0 Lakh (Capital) & Rs 0.6 Lakh (recurring) for Socio-economic welfare activities in nearby villages, and viii) Rs 18.0 Lakh (Capital) for Conservation Plan for Schedule-I species. PP should carry out air, water, noise and soil quality monitoring quarterly. Ground water monitoring in pre-monsoon and post monsoon season, and monitoring of the concentration of Manganese in air, water and soil samples. Further, the amount proposed under this head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and detailed report along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, sampling reports, photographs & Geo-location of the infrastructures/facilities developed, compositing & details of persons engaged in Environment Management Cell etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

- iv. Budget earmarked under **Corporate Environmental Responsibility (CER)** is Rs 6.1 Lakhs which includes i) Rs 1.4 Lakh for Rainwater Harvesting in School, ii) Rs 1.3 Lakh for Solar Power System in School, iii) 0.8 Lakh for Running water in Toilet, iv) Rs 1.0 Lakh for RO water System with storage containers, v) Rs 0.6 Lakh Plantation in school open land, vi) Rs 1.0 Lakh for Environmental Awareness Program in School. PP should fulfill the commitment made during public hearing in a time bound manner. PP proposed to carry out Corporate Environment Responsibility (CER) in addition to CSR activities which will be carried out as per the statutory norms (minimum 2% of company's annual profit). PP earmarked a budget of Rs 2.96 Crore towards the land compensation of the private land falling in the mining lease area. Further, the amount proposed under this head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and detailed report along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, land compensation paid etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- v. Budget earmarked for **Occupational Health and Safety Plan** is Rs 3.0 Lakh (Capital) & Rs 0.60 Lakh (recurring) which should be spent on i) initial & periodic health check-up of the mine workers, ii) providing personal protective equipments viz. helmet, goggle, shoes, uniform, dust mask, ear-plug , reflective jackets etc. to mine workers, iii) Neurological Assessment by a Certified Neurologist and Manganese (Mn) Estimation in Blood) of each workers annually, occupational health training & awareness programme etc. Further, the amount proposed under this head should be kept in a separate bank account and should be audited annually. If required PP shall enhance the budget under this head. PP should annually submit the audited statement and detailed report along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, test reports, photographs & Geo-location of the infrastructures/facilities developed, record of distribution of PPEs etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- vi. Water for the mining operation should be sourced from the legal sources. PP should construct the garland drain, sump and settling tank so as to avoid the contamination of surface water and nearby agricultural fields from manganese.

- vii. Transportation of Minerals should be in covered tippers and PP should ensure that there should be any spillage of mineral. PP should carry out regular maintenance of the transportation roads and haul roads.
- viii. The yearly total excavation from the mines should not be more than 4208 Tonne [2732 Manganese (ROM) & 1476 Waste/Top Soil] and annual dispatch of Mn ore (ROM) shall not be more than 2732 Tonnes.

2.17 Got Manglod Gypsum Mine with enhancement of production capacity from 3.5 Lakhs TPA to 7.0 Lakhs TPA of Gypsum by M/s Rajasthan State Mines Minerals Limited, located near Village-Got & Manglod, Tehsil -Jayal, District -Nagaur, Rajasthan (MLA 870.74 ha)

[File No. J-11015/63/2014-IA. II (M); Proposal No. IA/RJ/MIN/22811/2014; Consultant: M/s Mantec Consultants Pvt. Ltd.] -Consideration of Environmental Clearance

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

- 2. The project is category 'A' project as per EIA Notification 2006. PP applied for ToR on 17.01.2014 [P.3/c] and submitted Form-1[& PFR. The proposal was considered by the EAC in its meeting held during March 20-21, 2014 wherein the Committee recommended the proposal for ToR. The Ministry issued ToR vide letter no. J-11015/63/2014-IA.II (M), dated 07.05.2014.
- 3. PP submitted the EIA/EMP Report online to the Ministry on 13.04.2016 for seeking Environmental Clearance after conducting Public Hearing. As the information submitted by PP was not complete in all respect EDS was raised. The PP replied to EDS and the proposal was placed in EAC meeting held on 23-24 April, 2018 wherein the EAC deferred the proposal for want of requisite information. PP submitted the requisite information on 6.11.2019. The proposal is now placed in EAC meeting dated 19-20 December, 2019. The following information submitted so far by PP was deliberated and discussed during the meeting.

4. PP submitted that the Ministry has granted the Environment Clearance No. J-11015/706/2007-IA. II (M) dated 28.05.2008 for 3.5 lakh TPA gypsum production from Got Manglod Gypsum Mines.
5. The mining lease was renewed in favour of RSMML by the Mines Department, Government of Rajasthan, vide order NO.P.15(16)Khan/Group-1/2000, dated 13.07.2009, for a period of 20 years with effect from 30.06.2000. The validity of mining lease extended up to 31.03.2025 vide Mining Engineer, Department of Mines & Geology, Nagaur letter dated 24.03.2017. The total mining lease area is 870.74 ha out of which 670.74 ha land belongs to private khatedars, 2.78 ha waste land, 169 ha grazing land and the rest 28.22 ha is of road and temple area. No forest land is involved. PP submitted a NOC dated 1.12.1990 obtained in this regard from forest department.

Observation of EAC: The Committee in its meeting held during 23-24 April, 2018 asked the PP to submit the fresh NOC from Forest Department for involvement of any forest land in the mine lease area. The PP in its reply submitted on 6.11.2019, provided a copy of letter dated 16.01.2019 obtained from office of DFO, Nagaur wherein it has mentioned that mining lease area does not involve forest land.

6. PP submitted that the method of mining will be opencast mechanized without drilling & blasting. The overburden will be removed to expose the gypsum surface and same will be simultaneously backfilled in the mined out pits. The exposed gypsum will be excavated by deploying excavator. After excavation the gypsum shall be directly loaded to buyer's trucks for dispatch and also to stockyard for blending of different grades. After excavating the mineral, the area will be backfilled and returned to the respective land owners. PP submitted there is no liquid waste generation and domestic effluent are collected by sewage system and biological treatment is adopted by means of septic tanks and soak pits. PP submitted that the Scheme of Mining was approved for 2012-13 to 2017-18 as per which the life of mine as per rated production of 7.0 LTPA will be 8-10 years. PP reported that this Scheme of Mining was valid till 31.03.2018 and subsequent scheme of mining for 2018-19 to 2022-23 has been submitted for 7 Lakh TPA to the Department of Mines and Geology on 29.01.2018. The same was approved on 3.04.2019. As per this scheme of mining the life of mine at rated production is 7 years only.

Observation of EAC: The Committee in its meeting held during 23-24 April, 2018 observed that the Scheme of mining for production of 7 Lakh TPA was not approved and asked the PP to submit the approved scheme of mining. PP in its reply submitted on 6.11.2019 submitted that the scheme of mining for 7 Lakh TPA was

approved by Department of Mines & Geology, Ajmer on 3.04.2019. Committee also observed that previous scheme of mining was approved on 30.10.2012 and was valid till 31.03.2018. The maximum production as per this mining scheme was 7,00,405 metric ton and the maximum waste generation was 6,61,605 m³. PP then obtained ToR and conducted PH on 10.09.2015. This shows that during the PH the mining scheme which was submitted is of 2012. As this scheme of mining was valid till 31.03.2018 the EAC in its meeting held during 23-24 April, 2018 asked the PP to submit the approved scheme of mining for the subsequent period. PP vide its reply dated 6.11.2019 submitted the scheme of mining approved vide LR No. SME/Aj/Mining Plan/F-N-15/2019/3337 dated 3.04.2019 wherein the maximum production from the mines is shown as 7.0 Lakh TPA and maximum overburden to be handled is 6.27 Lakh m³.

7. PP reported that there is no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, and Tiger/Elephant Reserves located within the radius of 10 km of the mine lease area. DFO vide letter dated 10.03.2016 has authenticated the list of flora and fauna. As per the authenticated list there is one schedule-1 species i.e. Pea fowl is present within 10 KM of the mining lease area. PP reported that conservation plan for Schedule I species namely Pea fowl has been prepared in consultation with DCF, Naguar and the same was submitted to DCF by RSML vide letter dated 17.04.2018 for approval of CWLW. PP further submitted that a budget of Rs 1.5 Lakh is proposed for conservation plan of Pea fowl.

Observation of EAC: The Committee is of the view that PP should submit the proof of submission of conservation plan to Chief Wildlife Warden and also status of its approval.

8. PP submitted the DSR for gypsum submitted by Mines and Geology Department vide its letter dated 05.04.2018.
9. The Primary baseline data for specific micro-meteorology data, ambient air quality, waste quality, noise level, soil and flora & fauna has been collected during Post Monsoon season i.e. October to December, 2014. The monitoring results of ambient air, surface water, soil, ambient noise and ground water for the month of Oct-December 2014 have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples.

Observation of EAC: The Committee deliberated the baseline data and anticipated impact and observed that the impact was calculated on the production capacity of 7.0 Lakh TPA but in addition to mineral production there is also handling of waste and the impact of the same needs to be ascertained by the PP. The Committee

therefore suggested that impact on air quality on total excavation needs to be submitted in both control and worst case scenario. The predicated GLC values of different pollutants needs to be ascertained.

- 10.** PP submitted that the mine working will be around 4.88 meters below ground level and water table is 70 meters below ground level thus there will be no ground water intersection. PP submitted that the water requirement for the project will be 15 KLD [2 KLD for domestic use; 10 KLD for dust suppression and 3 KLD for green belt development]. The water requirement shall be met through water tankers.
- 11.** The Public hearing was conducted on 10.09.2015 & under the Chairmanship of Shri C.L. Goyal, Addl. District Magistrate, Didwana, Dist Nagaur. Regional Officer of Rajasthan SPCB, Ajmer was also present during the Public Hearing. The advertisement for public hearing was published on 6.08.2015 in '*Rajasthan Patrika*' and '*Indian Express*'. The issues raised during Public Hearing were discussed by the Committee. The main issue raised during PH is mining in grazing land, pollution, road repair, work related to cowshed, mining away from the road, leveling of excavated pits etc.

Observation of EAC: Committee observed that concerned Tehsildar has visited the mine and satisfied with the mining operation. He has convinced that old broken grazing land can only be used for other purpose after excavation of complete gypsum. He has neither objected the mining operation nor discontinues mining operation in old broken grazing land. RSMML will not undertake mining operation in grazing land which is intact. Committee is of the view that PP should submit a plan clearly showing the grazing land where mining has already been taken place and grazing land which will left intact as per commitment made during PH. In addition to this PP needs to submit the copy of minutes of meeting along with attendance sheet.

- 12.** PP submitted that activities to be carried out under CSR include i) Medical Camp facilities for the neighborhood villages. In each camp Medicinal costs are met by the Company, ii) First aid training will be regularly imparted to trainees from the neighboring villages, iii) The Company also distributes saplings to the local villagers as a part of social forestry, iv) Give financial assistance for construction work in schools, for community Centre etc. through gram Panchayat and v) Give financial assistance to Government Hospitals for their modernization and purchase of required equipment.

Observation of EAC: Committee observed that in addition to activities proposed under CSR, the PP in pursuant to Ministry's. O.M No. 22-65/2017-IA.III dated

1.05.2018 and being a brownfield project should allocate minimum 1% of the project cost (i.e. 23.52 Lakh) for corporate environment responsibility. Committee is of the view that PP should submit the time bound action plan for the activities to be carried out under CER with budgetary provision.

13. The amount proposed under EMP will be Rs 5.25 lakhs which includes Rs 2.25 Lakh [for air, water, noise and soil quality monitoring], Rs 1.0 Lakh for environmental training/awareness, Rs 1.5 lakh for water spraying and Rs 1.0 Lakh for plantation.

Observation of EAC: The Committee in its meeting held during 23-24 April, 2018 asked the PP to submit the revised EMP Cost. The PP vide its reply dated 6.11.2019 submitted that the revised EMP cost will be Rs 10.0 (capital) & Rs 15.30 Lakh (recurring) which includes i) Rs 2.16 Lakh/annum for repairing and maintenance of haul road and rural roads, ii) Rs 3.24 Lakh/annum for water tanker for sprinkling on haul road and for plantation, iii) Rs 0.80 Lakh/annum for AAQM on 6 monthly basis , iv) Rs 4.0 Lakh for consent to operate fees, v) Rs 5.0 Lakh/annum for plantation [cost of plant, water arrangement, plantation through villagers (labor cost)], vi) Rs 0.10 Lakh/annum for environment protection equipments like helmet, earmuff, goggles, safety shoes, gloves, mask, first aid facility etc. , v) Rs 10.0 Lakh for construction of water diggi (pond) as demanded in Public hearing. The Committee observed that although PP tried to address most of the issues but still the cost for soil, water and noise quality monitoring is not estimated by PP. The consent fees and other fees should not be a part of EMP, the PP did not provide the designation and budget for the establishment of Environment Management Cell.

14. It was submitted that the health check-up for the workers will be conducted at regular intervals of two months in a year. The health camps status will be monitored and the information will be furnished to the approving authority. PP submitted that except dust generation there is no source which can show a probability for health related diseases and proper dust suppression will control dust generation and dispersion. Dust masks will be provided to the workers working in the dust prone areas as additional personal protective equipment. Awareness program will be conducted about likely occupational health hazards so as to have preventive action in place. Periodical medical checkup will be conducted. Develop and implement training sessions for management, supervisors and workers on health and safety practices and legislation.

Observation of EAC: The Committee observed that PP did not provide the budget for the implementation of occupational health surveillance plan. Thus, PP needs to submit the time bound activity wise Occupational Health and surveillance plan with budgetary allocation.

15. PP submitted that plantation activity in an area of 6 ha was proposed as per the approved mine plan & granted Environment Clearance but the survival rate is about 50% due to desert climate. As per revised scheme of mining most of the land covered under mining has been taken from private land owner on the basis of mutual agreement and shall be returned back to them immediately after excavation of gypsum, backfilling & leveling; for use of cultivation. In such system it is difficult to propose plantation in the mined out area by RSMML but the plantation programme have been proposed along the village roads / tracks after consultation with Panchayat. The species of plants selected for proposed plantation are suitable to the desertic climate and the survival rate is expected to be better than before. The year-wise plants proposed to be provided to land owner through Panchayat during the tentative period of five years shall be 1000 saplings /year totaling to 5000 saplings.

Observation of EAC: The EAC in its meeting held during 23-24 April, 2018 asked the PP to submit the revised green belt plan. The PP in its reply submitted on 6.11.2019 submitted that around 25700 saplings on 63.94 ha area will be planted on lease boundary under green belt program within 5 year [5600 saplings at 13.93 ha area in 1st year; 4750 saplings at 11.88 ha area in 2nd year; 6350 saplings at 15.84 ha area in 3rd year; 4350 saplings at 10.81 ha area in 4th year and 4650 saplings at 11.48 ha area in 5th year]. The Committee agreed with the proposal of PP and is of the view that PP should plant atleast 25700 saplings around the lease boundary and 5000 saplings outside the lease boundary along the village roads / tracks after consultation with Panchayat. The Committee observed that PP in its reply submitted on 6.11.2019 revised the cost of plantation from Rs 1.0 Lakh/annum to Rs 5.0 Lakh/annum.

16. PP submitted that EC Compliance Report submitted by Regional Office, Lucknow vide its letter No IV/ENV/R/Min-412/634/2008/538 dated 27.03.2017.

Observation of EAC: Committee observed that there is no major non-compliance was reported by Regional Office in its Inspection Report. But PP should submit the documentary evidence to support the claim of compliance.

17. The past production details mentioned in the mining scheme approved by DMG, Ajmer shows that the production in the base year 1993-94 was 89230 Tonne and the same was increased to 101505 Tonne in the year 1994-95 and at this stage there was requirement of EC but PP obtained Environment Clearance vide letter No. J-11015/706/2007-IA. II (M) dated 28.05.2008 for 3.5 Lakh TPA. After obtaining EC the production is well within the EC limit. It

has also observed that during 1999-2000 to 2004-05 the CTO capacity was 1.0 Lakh TPA but production is over and above the CTO Capacity. Therefore, there is violation of Common Cause Judgment dated 2.08.2017. The Committee is of the view that PP should submit the undertaking by the way of affidavit for compliance of all statutory requirement and Common Cause Judgment dated 2.08.2017 in pursuant to Ministry's O.M. No. 3-50/2017 - IA.III(Pt.) dated 30.05.2018.

- 18.** PP submitted the NABET Accredited Certificate of consultant for the period 2.08.2017 to 29.09.2019 and lab certificate valid from 11.09.2017 to 10.09.2019.

Observation of EAC: The PP & Consultant should submit an undertaking that the data and the information given in EIA/EMP report, enclosure and other information submitted to Ministry are true to best of his knowledge and belief and project will be rejected and clearance if given will be revoked if any of the information is found misleading at any stage.

- 19.** The PP vides its reply dated 6.11.2019 submitted that the total project cost will be Rs. 23.52 Crores. PP submitted that manpower requirement for the project shall be 16 Nos.

Observation of EAC: The Committee observed that manpower provided by PP includes the statutory manpower and it is not clear that after the said expansion how many new job opportunities will be generated. The composition of Environmental Management Cell and manpower to be engaged for the same is not provided by PP. In addition to this, as per Ministry's O.M No. 22-65/2017-IA.III dated 1.05.2018 being a brownfield project 1% of the project cost (i.e. Rs. 23.52 Lakh) should be allocated for corporate environment responsibility in addition to CSR activities required to be done as per Companies Act 2013. Committee is of the view that PP should submit the time bound action plan for the activities to be carried out under CER with budgetary provision.

- 20.** Based on the discussion held and document submitted the Committee **deferred** the proposal for want of following information:

- i. Proof of submission of conservation plan to Chief Wildlife Warden and status of its approval needs to be submitted.
- ii. Impact on air quality on total excavation needs to be submitted in both control and worst case scenario. The predicated GLC values of different pollutants needs to be ascertained.

- iii. PP should submit a plan showing the grazing land where mining has already been taken place and grazing land which will left intact as per commitment made during PH. In addition to this, PP needs to submit the copy of minutes of meeting of PH along with attendance sheet and advertisement.
- iv. PP in compliance to Ministry's O.M No. 22-65/2017-IA.III dated 1.05.2018 needs to submit time bound, activity-wise, action plan for the activities to be carried out under CER with budgetary provision for a brownfield project for an amount of Rs. 23.52 Lakh.
- v. PP needs to submit cost for soil, water and noise quality monitoring. The consent fees and other fees should not be a part of EMP. PP needs to provide the designation and budget for the establishment of Environment Management Cell. Therefore, revised EMP budget and time bound, activity wise action plan needs to be submitted.
- vi. The Committee observed that PP did not provide the budget for the implementation of occupational health surveillance plan. Thus, PP needs to submit the time bound, activity wise Occupational Health and surveillance plan with budgetary allocation.
- vii. PP should submit the undertaking by the way of affidavit for compliance of all statutory requirement and Common Cause Judgment dated 2.08.2017 in pursuant to Ministry's O.M. No. 3-50/2017 -IA.III(Pt.) dated 30.05.2018.
- viii. PP & Consultant should submit an undertaking that the data and the information given in EIA/EMP report, enclosure and other information submitted to Ministry are true to best of his knowledge and belief and project will be rejected and clearance if given will be revoked if any of the information is found misleading at any stage.
- ix. PP needs to submit detail of employment generation due to proposed expansion. PP shall also highlight the proposed strengthening of Environment Management Cell in reference to the proposed expansion along with budgetary provisions.
- x. PP needs to submit EIA/EMP Report after ensuring that all the annexures, attachments and referred documents are in sequence and properly marked/paged and is also has reference concerned section of the report. Necessary supporting documents in compliance to existing EC Conditions may also be submitted.

2.18 Expansion in Production from 4.0 MTPA to 15.0 MTPA of Thakurani Iron Ore Mining Project of M/s Sarda Mines Pvt Ltd from the mine lease area of 947.046ha (943.926ha Forest Land+ 3.120 ha Non forest land) located in Village(s) Soyabali & Balitaand in the Thakurani Reserve Forest, Tehsil Barbil, District Kendujhar, Orissa. Amendment in EC w.r.t. extension of validity of EC till 13.08.2021 coterminous with the validity of lease. FileJ-11015/1176/2007-IA.II(M);Proposal No. IA/OR/MIN/124339/2019.

The proposal of M/s SARDA Mines Pvt Ltd (SMPL) is for extension validity of EC granted vide Lr.No. J-11015/1176/2007-IA. II(M) dated 29th October, 2008 for expansion of Production from 4.0 MTPA to 15.0 MTPA of Thakurani Iron Ore Mining from the mine lease area of 947.046 ha (943.926ha Forest Land+ 3.120 ha Non forest land) located in Village(s) Soyabali & Balitaand in the Thakurani Reserve Forest, Tehsil Barbil, District Kendujhar, Orissa. The validity of mining lease is till __28/08/2020.

2. The project was earlier accorded environmental clearance by the Ministry vide letter No. J-11015/5/2003-IA. II(M) dated 22.09.2004 under EIA Notification 1994 with maximum production of 4 MTPA (lump ore) to be attained in 17th Year of operation.
3. PP further obtained EC for expansion of production from 4 MTPA of lump ore to 15 million TPA (ROM) vide Lr. No. J-11015/1176/2007-IA. II(M) dated 29th October, 2008 which has two main specific conditions in this EC letter apart from other viz.

(Sp. Condition No ii) Environmental Clearance is subjected to grant of Forestry Clearance

(Sp. Condition No. iii) Environmental Clearance is valid up to the year 2013-2014. Working of the mine beyond 2014 based on the established reserve shall be commenced only after obtaining prior clearance from the Ministry of Environment & Forest.

4. PP informed that as the EC was valid till 2013-14, application to ministry for extending the validity of the Environmental Clearance was made vide letter No. SMPL/TIOM/2012/1012 dated 17.12.2012. The proposal was considered in EAC meeting held during 15-17 May, 2013 & 25-27 Sept,2013 wherein the

Committee recommended the proposal for extension of validity of EC. The matter was thereafter under examination in the Ministry on various issues related to life of mine, violation, Forest Clearance, CEC Report, Supreme Court Case etc. The PP vide letter dated 3.11.2014 sought clarification regarding operating the mine on the basis of EC granted vide letter dated 22.09.2004. The Ministry vide letter dated 15.01.2015 responded to PP as below:

"It has been decided that permission to mine as per conditions of EC No J-11015/05/2003-IA. II(M) for 4 MTPA is approved subject to the permission from the Supreme Court. This permission to mine against EC limit of 4 MTPA granted vide LR dated 22.09.2004 will be reviewed, if required, after the final decision by the court on the ownership related issues as brought out by CEC and Shah Commission."

5. PP submitted that FAC has recommended for in-principle approval of the additionally forest area of 367.832 ha on 26.09.2019 and the same has been submitted to Ministry vide letter no F.No.8-55/2000-FC(Pt) dated 15th November, 2019.
6. The letter submitted by PP states that the approval is obtained for change in land use pattern in respect of diversion of 865.276ha of Forest land out of 947.046ha. of ML area for mining of Iron Ore in favour of M/s Sarda Mines Pvt. Ltd. in village Sayabali, Balita and Thakurani RF in Keonjhar district of Orissa-Application for permission to carry out mining operations by the user agency over 617.108 ha of forest land out of 865.276 ha has been already diverted to forest land by the AIG (FC), FC Division, Ministry of Environment Forest and Climate change. In light of this, it is requested to extend the validity of the EC granted vide Lr No. J-11015/1176/2007 -IA. II (M) dated 29th October, 2008 coterminous with the validity of lease.
7. EAC observed that the provision of S.O. 1530(E) dated 6.04.2018 is applicable in the instant case, because as per the 6.04.2018 " *all mining projects mentioned in clause (b) of fourth paragraph above are required to obtain environmental clearance under the EIA Notification, 2006, in pursuance of the aforesaid judgments of the Hon'ble Supreme Court*", para b of the notification 6.04.2018 mention that " *mining projects, which were granted environmental clearance under the EIA Notification, 1994, and but not obtained environmental clearance for expansion / modernization / amendment under the EIA Notification, 2006*", but PP submitted that the project was assessed under EIA -2006 and was granted EC for expansion, and therefore, this provision is not applicable on existing EC which is under the EIA-2006 notification.

8. Considering the information submitted and discussion held with PP, EAC observed that there is ambiguity on following issues, which needs to be clarified, before the proposal can be considered on merit:
 - i. Ministry may seek legal opinion on Validity of EC of 15 MTPA, grated vide letter dated 29.10.2008 in due consideration of Special condition (ii) of limited validity till 2014, and subsequent clarification provided to PP by Ministry vide letter no. 5.01.2015.
 - ii. PP needs to clarify as whether the amendment is being sought for EC of 2008 or the terms & conditions of 2004 for both- lumps and fines since EC is not valid beyond 2014 due to FC clearance non-availability
 - iii. Applicability of provisions of Ministry notification S.O. 1530(E) dated 6.04.2018 to deal with EC under EIA-1994 needs to be examined by IA-Policy.
 - iv. Applicability of violation notification 804 (E) on the instant proposal. PP is required to submit the production details as per annexure III of Agenda of the meeting, for verification
 - iv. Whether the committee can consider the proposal of expansion on data which is more than 3 years old and whereas a final decision of competent authority has been communicated.
9. EAC further observed that the present proposal needs to be verified for compliance of Common Cause judgement, decision of supreme court in the instant matter, compliance of provision of ministry notification 804(E), and other compliances as per Ministry OM, as applicable
10. Additionally, EAC opined that, to expedite the process and to avoid any unnecessary delay, concurrently, PP may be requested to submit following information/ documents:
 - i. Certified past production details as per Annexure III of the Agenda, from DMG- Orissa
 - ii. CER as per the provision of ministry OM. F.No. 22-65/2017-IA.III dated 19th June 2018
 - iii. An undertaking to comply with all decision /order of Hon'ble Supreme Court in the matter "Common Cause Vs Union of India in compliance to the Ministry OM F.No.3-50/2017-IA.III(Pt.) dated 30th May, 2018.
 - iv. Decision of Hon'ble Supreme Court to allow mining operation.
 - v. Decision of Hon'ble Supreme Court on the issue ownership, as required from PP in the ministry letter dt. 15.01.2015
 - vi. Status on compliance of NEERI recommendation

11. Committee suggested that opinion of Policy – IA Division may be sought on issues mentioned at para (8) above. In addition to this, the Committee suggested that PP may be requested to submit the information as mentioned at para (10) above. The Committee recommended to **deferred** the proposal till the time Ministry & PP provide the above mentioned information/clarification.

2.19 Amendment in Environmental Clearance granted vide Letter No J11015/374/2012-IA. II (M) dated 15.03.2016 Mining of Mineral Sand, Bajri and Boulder (Minor Mineral) in River Kotawali (a Tributary of River Ganga) with proposed production capacity of 75975.47 m3/annum by M/s Uttarakhand Forests Development Corporation, Uttarakhand, located at Village(s)- Kotawali and Chidyapur, Tehsil-Haridwar, District-Haridwar, Uttarakhand (MLA: 74.67 ha).

**Fileno-J-11015/374/2012-IA.II(M),Proposalno.IA/UK/MIN/32100/2013—
for EC Amendment**

The Ministry initially granted Environmental Clearance vide Letter No J-11015/374/2012- IA. II (M) dated 15.03.2016 for Mining of Mineral Sand, Bajri and Boulder (Minor Mineral) in River Kotawali (a Tributary of River Ganga) with proposed production capacity of 75975.47 m3/annum by M/s Uttarakhand Forests Development Corporation, Uttarakhand, located at Village(s)- Kotawali and Chidyapur, Tehsil- Haridwar, District-Haridwar, Uttarakhand (MLA: 74.67 ha).

2. Ministry based on the complaint received and site inspection carried out by Regional Office, MoEF&CC had issued Show Cause Notice for the aforementioned mining project of hind vides LR No Z-11015/72/2015-IA. (II) Dated 18.07.2017. In reply to the Show Cause Notice the UKFDC vide Lr. No 2475 dated 1.08.2017 & 2664 dated 09.08.2017 has submitted that the work of conducting Replenishment Study has already been awarded to Indian Institute of Water & Soil Conservation (IIWSC), Dehradun and report of the same could be submitted after the rainy season. The UKFDC vide letter No 4461 dated 12.11.2017 submitted the Replenishment Study Report 2017-18 for the aforementioned mining project.
3. The Ministry placed the replenishment study report before the Expert Appraisal Committee in its meeting held on 18-19 January, 2018, wherein the Committee suggested the Ministry to constitute a committee for the site visit for ground truthing. The Ministry vide letter no J-11015/72/2015 IA. II(M)

dated 22.01.2018 constitute a committee for the site visit of the aforementioned mining project. The Committee visited the site on 1st -3rd February, 2018 and placed its report before the EAC in its meeting held on 23-24 March, 2018, wherein, the Committee recommended that the capacity of the earlier EC shall be reduced as proposed in the replenishment study report submitted by IIWSC. But the quantity of safe extractable material should be considered as 30% instead of 90% as mentioned in the replenishment study report. Further, in place of Boulder, Bajri & Sand Mining the term River Bed Material (RBM) should be used in Environmental Clearances granted to UKFDC.

4. The matter was then examined in the Ministry and the EC granted vide letter No. J11015/374/2012-IA. II (M) dated 15.03.2016 was amended vide LR No J-11015/374/2012- IA. II (M) dated 16.05.2018 w.r.t. production capacity which was reduced from 75975.47 m³/annum to 17583 m³/annum and name of the mineral which is replaced from Sand, Bajri and Boulder (Minor Mineral) to River Bed Material (RBM).
5. PP then vide proposal No. IA/UK/MIN/32100/2013 dated 26.12.2018 applied for amendment in EC and the proposal was placed in EAC meeting held during 22-23 January, 2019 during the meeting Dr. Parmanand Kumar, Scientist- C, FRI, Dehradun presented the replenishment study report prepared by the FRI. The Committee asked the FRI to conclude the report and clearly specify whether the amount of RBM mentioned in the report can be safely extractable or not. The Committee finally deferred the proposal and is of the view that proposal can only be considered after the National Mission for Clean Ganga will take a decision on the Show Cause Notice issued on 09.10.2018 under section 5 of EPA, 1986 by exercise of power vested to NMCG under para 8 of the Authorities Order, 2016 and on submission of clarification sought above by Forest Research Institute.
6. The PP replied to the ADS raised by EAC on 19.11.2019 and the proposal is now placed in EAC meeting held during 19-20 December, 2019. The Committee observed that amount of RBM deposited (**in Kotwali**) as per replenishment study report 2018 is 65659.1 m³ and as per 2019 replenishment study report is 34279.35 m³. Dr. Parmanand Kumar, Scientist-C, FRI, Dehradun who was involved in the preparation of report confirmed that as there was no mining so the net amount deposited (difference between pre-monsoon 2018 survey and 2019 post monsoon survey) comes out to be 99938.45 m³. The PP also submitted that there is no ban on mining in this region either by Hon'ble NGT and NMCG. However, PP informed that CPCB and NMCG has issued direction u/s of E(P) A, 1986 for not carrying out mining activity in certain area. It was further informed that CPCB has withdrawn their

direction vide letter no. CPCB/IPC-II/Direction-DM/SSP,Haridwar/2016 dt. 22.03.2019. The reply submitted by PP with NMCG is under consideration.

7. The Committee is of the view that total RBM deposited is more than the initial amount granted i.e. 75975.47 m³/annum. Therefore, the committee **recommended amendment in EC** granted vides LR No J-11015/374/2012-IA. II (M) dated 16.05.2018 w.r.t. production capacity from 17,583 m³/annum to 75,975.47 m³/annum. The Committee also observed that specific condition as per previous amendment shall be applicable in the instant case. The committee recommended additional condition

“The mining shall be limited to the area which is not covered under the direction of NMCG issued vide letter no. 09.10.2018. Mining in such area will be subjected to the final decision of NMCG”.

2.20 Mining of Mineral Sand, Bajri and Boulder (Minor Mineral) in Rawasan-2 River (a Tributary of River Ganga) with proposed production capacity of 316496.25 m³ /annum by M/s Uttarakhand Forests Development Corporation, Uttarakhand, located at Village-Rawasan & Mitiveri, Tehsil- Haridwar, District Haridwar, Uttarakhand (MLA: 100.59ha).

**File no: J-11015/373/2012-IA. II(M) I, Proposal no.: A/UK/MIN/32107/2013
- EC Amendment**

The Ministry initially granted Environmental Clearance vide Letter NoJ-11015/373/2012- IA. II (M) dated 15.03.2016 for Mining of Mineral Sand, Bajri and Boulder (Minor Mineral) in Rawasan-2 River (a Tributary of River Ganga) with proposed production capacity of 316496.25 m³/annum by M/s Uttarakhand Forests Development Corporation, Uttarakhand, located at Village-Rawasan & Mitiveri, Tehsil- Haridwar, District-Haridwar, Uttarakhand (MLA: 100.59ha).

2. Ministry based on the complaint received and site inspection carried out by Regional Office, MoEF&CC had issued Show Cause Notice for the aforementioned mining project of UKFDC vide LR No Z-11015/72/2015-IA. (II) Dated 18.07.2017. In reply to the Show Cause Notice the UKFDC vide Lr. No 2475 dated 1.08.2017 & 2664 dated 09.08.2017 has submitted that the work of conducting Replenishment Study has already been awarded to Indian Institute of Water & Soil Conservation (IIWSC), Dehradun and report of the same could be submitted after the rainy season. The UKFDC vide letter No

4461 dated 12.11.2017 submitted the Replenishment Study Report 2017-18 for the aforementioned mining project.

3. The Ministry placed the replenishment study report before the Expert Appraisal Committee in its meeting held on 18-19 January, 2018. Wherein, the Committee suggested the Ministry to constitute a committee for the site visit for ground truthing. The Ministry vide letter no J-11015/72/2015 IA. II(M) dated 22.01.2018 constitute a committee for the site visit of the aforementioned mining project. The Committee visited the site on 1st -3rd February, 2018 and placed its report before the EAC in its meeting held on 23-24 March, 2018, wherein, the Committee recommended that the capacity of the earlier EC shall be reduced as proposed in the replenishment study report submitted by IIWSC. But the quantity of safe extractable material should be considered as 30% instead of 90% as mentioned in the replenishment study report. Further, in place of Boulder, Bajri & Sand Mining the term River Bed Material (RBM) should be used in Environmental Clearances granted to UKFDC.
4. The matter was then examined in the Ministry and the EC granted vide letter No. J11015/373/2012-IA. II (M) dated 15.03.2016 was amended vide LR No J-11015/373/2012- IA. II (M) dated 16.05.2018 w.r.t. production capacity which was reduced from 316496.25 m³/annum to 57994.77m³/annum and name of the mineral which is replaced from Sand, Bajri and Boulder (Minor Mineral) to River Bed Material (RBM).
5. The PP then vide proposal No. IA/UK/MIN/32107/2013 dated 26.12.2018 applied for amendment in EC and the proposal was placed in EAC meeting held during 22-23 January, 2019 during the meeting Dr. Parmanand Kumar, Scientist- C, FRI, Dehradun presented the replenishment study report prepared by the FRI. The Committee asked the FRI to conclude the report and clearly specify whether the amount of RBM mentioned in the report can be safely extractable or not. The Committee finally deferred the proposal and is of the view that proposal can only be considered after the National Mission for Clean Ganga will take a decision on the Show Cause Notice issued on 09.10.2018 under section 5 of EPA, 1986 by exercise of power vested to NMCG under para 8 of the Authorities Order, 2016 and on submission of clarification sought above by Forest Research Institute.
6. The PP replied to the ADS raised by EAC on 19.11.2019 and the proposal is now placed in EAC meeting held during 19-20 December, 2019. The Committee observed that amount of RBM deposited (**in Rawasan-2**) as per replenishment study report 2018 is 344574. m³ and as per 2019 replenishment study report is 294981.9 m³. Dr. Parmanand Kumar, Scientist-

C, FRI, Dehradun who was involved in the preparation of report confirmed that as there was no mining so the net amount deposited (difference between pre-monsoon 2018 survey and 2019 post monsoon survey) comes out to be 639555.29 m3. The PP also submitted that there is no ban on mining in this region either by Hon'ble NGT and NMCG. However, PP informed that CPCB and NMCG has issued direction u/s of E(P) A, 1986 for not carrying out mining activity in certain area. It was further informed that CPCB has withdrawn their direction vide letter no. CPCB/IPC-II/Direction-DM/SSP,Haridwar/2016 dt 22.03.2019 . The reply submitted by PP with NMCG is under consideration.

7. The Committee is of the view that total RBM deposited is more than the initial amount granted i.e. 316496.25 m3/annum. Therefore, the committee **recommended amendment in EC granted** vides LR No J-11015/373/2012-IA. II (M) dated 16.05.2018 w.r.t. production capacity from 57994.77m3/annum to 316496.25 m3/annum. The Committee also observed that specific condition while grating previous amendment and the same shall be applicable in the instant case. The committee recommended additional condition

“The mining shall be limited to the area which is not covered under the direction of NMCG issued vide letter no. 09.10.2018. Mining in such area will be subjected to the final decision of NMCG”.

2.21 Mining of Mineral Sand, Bajri and Boulder (Minor Mineral) in Rawasan-1 Located in Rawasan & Mitiveri Villages of Haridwar District, Uttarakhand by M/s Uttarakhand Forest Development Corporation (MLA 99.79ha).

File no: J-11015/367/2012-IA. II(M), Proposal No: IA/UK/MIN/32104/2013 - EC Amendment

The Ministry initially granted Environmental Clearance vide Letter No J-11015/367/2012- IA. II (M) dated 15.03.2016 for Mining of Mineral Sand, Bajri and Boulder (Minor Mineral) in Rawasan-1 River (a Tributary of River Ganga) with proposed production capacity of 495623.69 m3/annum by M/s Uttarakhand Forests Development Corporation, Uttarakhand, located at Village-Rawasan & Mitiveri, Tehsil- Haridwar, District-Haridwar, Uttarakhand (MLA: 99.79 ha).

2. Ministry based on the complaint received and site inspection carried out by Regional Office, MoEF&CC had issued Show Cause Notice for the aforementioned mining project of UKFDC vide LR No Z-11015/72/2015-IA. (II) Dated 18.07.2017. In reply to the Show Cause Notice the UKFDC vide Lr. No 2475 dated 1.08.2017 & 2664 dated 09.08.2017 has submitted that the work of conducting Replenishment Study has already been awarded to Indian Institute of Water & Soil Conservation (IIWSC), Dehradun and report of the same could be submitted after the rainy season. The UKFDC vide letter No 4461 dated 12.11.2017 submitted the Replenishment Study Report 2017-18 for the aforementioned mining project.
3. The Ministry placed the replenishment study report before the Expert Appraisal Committee in its meeting held on 18-19 January, 2018. Wherein, the Committee suggested the Ministry to constitute a committee for the site visit for ground truthing. The Ministry vide letter no J-11015/72/2015 IA. II(M) dated 22.01.2018 constitute a committee for the site visit of the aforementioned mining project. The Committee visited the site on 1st -3rd February, 2018 and placed its report before the EAC in its meeting held on 23-24 March, 2018, wherein, the Committee recommended that the capacity of the earlier EC shall be reduced as proposed in the replenishment study report submitted by IIWSC. But the quantity of safe extractable material should be considered as 30% instead of 90% as mentioned in the replenishment study report. Further, in place of Boulder, Bajri & Sand Mining the term River Bed Material (RBM) should be used in Environmental Clearances granted to UKFDC.
4. The matter was then examined in the Ministry and the EC granted vide letter No. J11015/367/2012-IA. II (M) dated 15.03.2016 was amended vide LR No J-11015/367/2012- IA. II (M) dated 16.05.2018 w.r.t. production capacity which was reduced 495623.69 m³/annum to 88651.7 m³/annum and name of the mineral which is replaced from Sand, Bajri and Boulder (Minor Mineral) to River Bed Material (RBM).
5. The PP then vide proposal No. IA/UK/MIN/32104/2013 dated 26.12.2018 applied for amendment in EC and the proposal was placed in EAC meeting held during 22-23 January, 2019 during the meeting Dr. Parmanand Kumar, Scientist- C, FRI, Dehradun presented the replenishment study report prepared by the FRI. The Committee asked the FRI to conclude the report and clearly specify whether the amount of RBM mentioned in the report can be safely extractable or not. The Committee finally deferred the proposal and is of the view that proposal can only be considered after the National Mission for Clean Ganga will take a decision on the Show Cause Notice issued on 09.10.2018 under section 5 of EPA, 1986 by exercise of power vested to

NMCG under para 8 of the Authorities Order, 2016 and on submission of clarification sought above by Forest Research Institute.

6. The PP replied to the ADS raised by EAC on 19.11.2019 and the proposal is now placed in EAC meeting held during 19-20 December, 2019. The Committee observed that amount of RBM deposited **(in Rawasan-1)** as per replenishment study report 2018 is 699421 m³ and as per 2019 replenishment study report is 15829.3 m³. Dr. Parmanand Kumar, Scientist-C, FRI, Dehradun who was involved in the preparation of report confirmed that as there was no mining so the net amount deposited (difference between pre-monsoon 2018 survey and 2019 post monsoon survey) comes out to be 715250.25 m³. The PP also submitted that there is no ban on mining in this region either by Hon'ble NGT and NMCG. However, PP informed that CPCB and NMCG has issued direction u/s of E(P) A, 1986 for not carrying out mining activity in certain area. It was further informed that CPCB has withdrawn their direction vide letter no. CPCB/IPC-II/Direction-DM/SSP, Haridwar/2016 dt. 22.03.2019. The reply submitted by PP with NMCG is under consideration.
7. The Committee is of the view that total RBM deposited is more than the initial amount granted i.e. 495623.69 m³/annum. Therefore, the committee **recommended amendment in EC granted** vides LR No J-11015/367/2012-IA. II (M) dated 16.05.2018 w.r.t. production capacity from 88651.7 m³/annum to 495623.69 m³/annum. The Committee also observed that specific condition while grating previous amendment and the same shall be applicable in the instant case. The committee recommended the following additional condition.

"The mining shall be limited to the area which is not covered under the direction of NMCG issued vide letter no. 09.10.2018. Mining in such area will be subjected to the final decision of NMCG".

2.22 Bhavanipuram Limestone Mine-3 of M/s Deccan Cements Limited with increase of Limestone production capacity from 2.3 to 4.6 MTPA in total area of 183.11 ha located at Saidulnama Reserved Forest (Compartment No. 26 & 27), Ravipahad Village, Nereducherla Mandal, Nalgonda District, Telangana

[File J-11015/375/2015-IA-II (M) IA/TG/MIN/128383/2019; Consultant B.S. Envi-Tech (P) Ltd]-ToR

The proposal of M/s Deccan Cements Limited is for expansion of Bhavanipuram Limestone Mine-3 [ML Area 183.11 Ha] production from 2.3 to

4.6 MTPA located at Saidulnama Reserved Forest (Compartment No. 26 & 27), Ravipahad Village, Nereducherla Mandal, Nalgonda District, Telangana. The Mining Lease area is a part of the Survey of India Topo-Sheet No. 56P/10. The site falls between Latitude 16°42'38.70" N - 16°43'26.0" and Longitude 79°42'26.40"E - 79°43' 53.90" E with an average altitude 74 m above MSL and falls in seismic zone-II.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", Project or Activity 1(a) as the Mining lease area is more than 100 Ha. The PP applied online vide proposal No. **IA/TG/MIN/128383/2019** dated 06.12.2019 and submitted the Form-1, Pre-feasibility Report. The proposal is now placed in EAC meeting held during 19-20 December, 2019.
3. PP submitted that Mining lease in favor of M/s Deccan Cement (DCL) on 16.12.2013 and the lease was executed on 28.12.2013 for a period of 20 years i.e. up to 27.12.2033. The State Govt vide its G.O. MS No. 12 dated 21.07.2017 extended the validity of mining lease for 50 years i.e. up to 27.12.2063.
4. PP submitted that DCL has earlier obtained EC (vide Letter No: J-11015/642/2007-IA.II (M) Dated 18.10.2007) for 0.3 MTPA of Limestone production. Mine was opened on 23rd March 2015. Later on, DCL has obtained EC (vide Letter No: J-11015/375/2015- IA.II (M) Dated 05.01.2017) for 2.3 MTPA of Limestone production.
5. PP submitted that Mining lease area (183.11 Ha) is part of Saidulnama Reserved Forest (Compartment No. 26 & 27). Forest Clearance was obtained vide letter No. Rc.No.31015/2007/F2, dated 13.08.2013. No sensitive areas or National parks are located within 10 km of the mine area and proposal does not involves approval/clearance under the wildlife (Protection) Act, 1972.
6. PP submitted that fully Mechanized method of mining is adopted. The benches are 8 m height. The limestone produced from the mine transported from the mines to the crusher inside the plant by dumpers of 35 t capacity. No top soil or waste is envisaged from the mine. Proved mineral reserve of 91.684 Million Tonnes, post the proposed expansion the mine will last for 20 years with proposed production capacity of 4.6 MTPA. PP submitted that waste water generated from domestic uses will be treated in septic tank followed by soak pit.

7. PP submitted that the present water requirement is 130 m³/day and after the proposed expansion is 250 m³/day. Water requirement of the mine is sourced from River Krishna /existing adjacent Mine pit.
8. PP submitted that existing man power is 39 and total manpower Requirement after expansion will be 60.
9. Based on the information submitted and discussion held the Committee **recommended the proposal for grant of ToR** for expansion of production from 2.3 MTPA to 4.6 MTPA with total excavation of 4.6 MTPA [Limestone 4.6 MTPA (ROM); Waste/Reject/IB/OB/Top Soil -Nil) from Bhavanipuram Limestone Mine-3 (ML Area 183.11 ha) located at Saidulnama Reserved Forest (Compartment No. 26 & 27), Ravipahad Village, Nereducherla Mandal, Nalgonda District, Telangana by M/s Deccan Cements Limited **subject to examination in light of common cause judgment dated 2.08.2017 and S.O. 804(E) dated 14.03.2017**. The Committee prescribed the following additional ToR along with Standard ToR (as per Annexure-1) for preparation of EIA/EMP Report after conducting public hearing.

Additional ToR:

- i. The total excavation (minerals, waste, top soil) to be excavated needs to be bring out clearly in production and development plan. The mineable reserves, blocked reserves need to be mentioned along with life of mine. PP should add an annexures showing the year-wise production and development plan (tabular format) till the end of life of mine. The location of mineral stacking, dumping sites, plantation and other infrastructures needs to bring out clearly in the mining plan. PP needs to bring out the waste to be generated during the entire life of mine and where it will be dumped/backfilled.
- ii. PP should submit an undertaking by way of affidavit as required as per Ministry's O.M No 3-50/2017 -IA. II(M) dated 30.05.2018 to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- iii. PP should provide in the EIA Report details of all the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after grant of EC.

- iv. PP should submit the revenue plan for mining lease, revenue plan should be superimposed on the satellite imaginary clearly demarcate the Govt. land, private land, agricultural land etc.
- v. PP should submit the real-time aerial footage & video of the mining lease area and of the transportation route.
- vi. PP should submit the detailed plan in tabular format (year-wise for life of mine) for afforestation and green belt development in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted.
- vii. PP should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.
- viii. PP should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.
- ix. PP should submit the year-wise, activity wise and time bound budget earmarked for EMP, occupational health surveillance & Corporate Environmental Responsibility needs to be submitted. The capital and recurring expenditure to be incurred needs to be submitted.
- x. PP should submit the measures/technology to be adopted for prevention of illegal mining and pilferage of mineral.
- xi. PP should submit the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.

- xii. PP should clearly show the transport route of the mineral and protection and mitigative measure to be adopted while transportation of the mineral. The impact from the center line of the road on either side should be clearly brought out supported with the line source modelling and isopleth. Further, frequency of testing of Poly Achromatic Hydrocarbon needs to be submitted along with budget. Based on the above study the compensation to be paid in the event of damage to the crop and land on the either side of the road needs to be mentioned. The PP should provide the source of equations used and complete calculations for computing the emission rate from the various sources.
- xiii. PP should clearly bring out that what is the specific diesel consumption and steps to be taken for reduction of the same. Year-wise target for reduction in the specific diesel consumption needs to be submitted.
- xiv. PP should bring out the awareness campaign to be carried out on various environmental issues, practical training facility to be provided to the environmental engineer/diploma holders, mining engineer/diploma holders, geologists, and other trades related to mining operations. Target for the same needs to be submitted.
- xv. The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.
- xvi. The PP should ensure that only NABET accredited consultant shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that accreditation of consultant shall be valid during the collection of baseline data, preparation of EIA/EMP report and during the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and PP and consultant are fully accountable for the same.
- xvii. The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.

All the certificates viz. Involvement of Forest land, distance from protected area, list of flora & fauna should be duly authenticated by Chief Wildlife

Warden & Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.

2.23 Proposal under the provision of Notification S.O. 1530 dated 06.04.2018 for Gagal Limestone mine of with Production Capacity 4.5 Million TPA (Limestone, shale & Quartzite) and sub-grade mineral stacking 2,50,000 CuM per annum (Maximum) with two nos. of existing Crushers having capacity 1000 TPH & 400 TPH from the mine lease area of 231.25 ha located at Villages Nalag, BhaterhUprali, Barmana, Jamthal, DhawanKothi, Baloh & Panjgain, Tehsil Sadar, District Bilaspur, Himachal Pradesh by M/s. ACC Limited.

File No. J-11015/130/2003-IA-II(M); Proposal No. IA/HP/MIN/81200/2018.

The proposal of M/s. ACC Limited is for Gagal Limestone mine of with Production Capacity 4.5 Million TPA (Limestone, shale & Quartzite) and sub-grade mineral stacking 2,50,000CuM per annum (Maximum) with two nos. of existing Crushers having capacity 1000 TPH & 400 TPH from the mine lease area of 231.25 ha located at Villages Nalag, BhaterhUprali, Barmana, Jamthal, DhawanKothi, Baloh&Panjgain, Tehsil Sadar, District Bilaspur, Himachal Pradesh. The Project Proponent submitted that mining lease area falls under Survey of India Topo-Sheet 53 A/15 and between Latitude: N 31° 23' 30.3 " to 31° 24' 57.50" N & Longitude: 76° 50' 15.5" to 76° 51' 8" E and in Seismic Zone -V.

2. The Project is Category A project as the mining lease area is more than 100 Ha as per S.O. dated 14.08.2018. The Proposal also involved Mineral Beneficiation (Wobbler). Due to this PP applied in Form-1 under Schedule 1(a) - Mining of minerals activity.
3. The has made application within the provision of Ministry's Notification S.O.1530(E) dated 6.04.2018. The proposal is placed in the present EAC meeting held during December 19-20, 2019, The Committee noted that as per the above notification the Project Proponent applied for ToR on 4th October 2018 i.e. well within the due date as per above notification and submitted the Form-1 & Pre-Feasibility Report.
4. PP reported that M/s ACC Ltd was accorded EC vide letter no J-11015/130/2003-IA.II(M) dated 21st April, 2005 for the proposal of Expansion of Gagal Limestone Mine(1.5 MTPA to 4.5 MTPA) of M/s ACC Ltd., located in village Burmana, Tehsil Sadar, District Bilaspur, Himachal Pradesh.

5. PP reported that the instant proposal is of existing operative captive Limestone Mine (Area: 231.25 ha.) for Production Capacity 4.5 Million TPA (Limestone, shale & Quartzite) and sub-grade mineral stacking 2,50,000 CuM per annum (Maximum) with two nos. of existing Crushers having capacity 1000 TPH & 400 TPH at Villages Nalag, BhaterhUprali, Barmana, Jamthal, DhawanKothi, Baloh&Panjgain, Tehsil Sadar, District Bilaspur, Himachal Pradesh.
6. PP reported that the total mine lease area is 231.25 ha of which 20.0 ha is agriculture land, 103.02 ha is forest land and 108.23 ha is wasteland. Forest clearance has been obtained on 25.01.2001. PP reported that initially mining lease was granted in favor of M/s. ACC Limited vide order no. 5-205 / 77- Ind (Glg) - 6253 dated 11.08.1978 by Director of Industries, Shimla, Government of Himachal Pradesh. Mining Lease deed was executed in favor of M/s ACC Limited for an area of 265.97 ha with effect from 10.02.1979 for 20 years. Further lease area of 231.25 ha was renewed vide letter no. Udyog-Bhu (Khani-4) Major-47 / 98-I-7556 dated 29.01.2003 for further terms of 20 years w.e.f. 19.02.1999 to 18.02.2019. Further as per provision of section 8A(5) of Mines & Minerals (Development & Regulation) Amendment Act, 2015, the period of above mentioned lease has been extended up to 31.03.2030 vide letter no. Udyog-Bhu (Khani-4) Major 47/98-I-2540 dated 09.06.2015 and Udyog-Bhu (Khani-4) Major - 47 / 98 - I -5133 dated 12.08.2015.
7. Mining operations is carried out by fully mechanized opencast method by utilizing Heavy Earth Moving Equipment (HEMM) in conjunction with deep hole drilling & blasting. Since Gagal Limestone Mine is a hilly mine, working will be from top to bottom by slicing method. The total mining lease area is 231.25 ha out of which PP proposed area to be mined is 62 ha mineral storage is 5ha, Infrastructure is 17.25ha and green belt is 147 ha. The project does not involve displacement of people. Entire mineral transportation 15,000TPD is by belt conveyors to the linked cement unit located at a distance of 1.5km. The total water requirement is 120 m³/day which is to be met from River Sutlej. Water table is 1600 m below mining level. There is no waste generation.
8. PP reported that Bandli Sanctuary is located at a distance of 4.1 kms for which PP has obtained recommendations from National Board for Wildlife vide letter No. 6-147/2015 WL (36th Meeting) dated 9th November 2015.
9. PP submitted the past production details for Limestone vide letter no Udyog-BHU/BLP/Report/-1105 dated 10.01.2019 from 1993-1994 till 2017-2018. The committee observed disagreement between the figures of the Department of Mine and Geology records and also the records are given for each minerals. PP

was in possession of EC for limestone only, whereas it is reported that Shale mineral was also mined clarification is needed by the PP.

10. The Committee suggested Ministry to examine the above proposal in light of NBWL Clearance, Forest Clearance, violation of SC Order dated 2.08.2017 and S.O. 141(E) dated 14.03.2017, if any applicable.
11. PP reported that a case is pending against the PP filed by M/s Archana Dutt in the Hon'ble High Court of Himachal Pradesh at Shimla, H.P.C.W.P. No. 708 of 2018 ArchanaDutt Petitioner Vs UoI & Othrs. The committee observed that the PP shall submit the latest status of the case.
12. Based on the discussion held and documents submitted, the Committee observed that PP has not submitted the complete information, and further examination of the submitted information is required for assessment of compliance of the various provision of ministry notifications, OM and Hon'ble Court judgements. The Committee suggested PP to submit all the requisite information viz. a) documents required as per annexure-III(minerals wise) of agenda for examining the matter in light of common cause order dated 02.08.2017 and S.O. 804(E) dated 14.03.2017; (b) comparative details of all the figures (mineral, waste, OB, top-soil, land use, water requirement, etc.) mentioned in the previous EC and what is proposed now, (c) details of any modification/expansion/amendment/change of scope of work/method of mining etc. if any carried out after grant of EC. The Committee also asked the Ministry to examine the matter for requirement of NBWL Clearance, Forest Clearance, violation of SC Order dated 2.08.2017 and S.O. 141(E) dated 14.03.2017. The Committee, therefore, **deferred** the proposal.

2.24 Proposed Manganese Ore Mining of M/s Special Blasts Limited, with proposed production capacity of 4000 TPA Manganese ore recovery from earlier mined out mineral dump [3 nos.] of already existing before grant of the mine lease area. The total mine lease area is 15ha, located at Miragpur Forest Compartment No. 551 (East), Miragpur Forest, Katangi, Tehsil, Balaghat District, Madhya Pradesh (MLA: 15 ha))

File No. J-11015/29/2019-IA-II(M); Proposal no. IA/MP/MIN/94859/2019) Consideration of ToR.

The proposal of M/s Special Blasts Limited is for recovery of Manganese Ore with proposed production capacity of 4000.0TPA from earlier mined out mineral dump [3 nos.] of already existing before grant of the mine lease area.

The total mine lease area is 15ha. The mine lease area is located at Miragpur Forest Compartment No. 551 (East), Miragpur Forest, Katangi, Tehsil, Balaghat District, Madhya Pradesh. The mining lease area lies between Latitudes & Longitudes:

S.No	Latitudes	Longitudes
1	210 38' 02.00" N	790 47'23.77" E
2	210 37' 53.40" N	790 47'18.00" E
3	210 37' 52.09" N	790 47'28.98" E
4	210 37' 57.90" N	790 47'43.40" E
5	210 38' 02.50" N	790 47'40.30" E
6	210 38' 01.36" N	790 47'33.90" E

2. The Mine lease area is located on Survey of India Toposheet no. 55 O/10 & 14. The proposal was considered as category 'A' as Interstate Boundary between Madhya Pradesh & Maharashtra at 4.7 Km.
3. The proposal was considered in the 3rd EAC Meeting held during March 25-26, 2019, Based on the discussion held and documents submitted by the PP the Committee deferred the is of the view that proposal may be considered only after submission of the following requisite documents/clarifications:
 - I. The Committee observed that there is water tank nalla inside the mine lease area, However, the mitigation measures have not properly addressed by the PP. PP should clearly bring out the safeguards for protecting the river, Nallah, water bodies exist in and around the mine lease are from the operation of the mine.
 - II. The PP should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of ground water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.
 - III. PP reported that the total volume of mineralized dumps existing in the lease area is 70,900 M3. Mineral recovery from existing erstwhile dump (considered peak production): 4252.5 TPA Proposed production from Mine: 4000.0 TPA Total Production including recovery from Mineral dump: 8252.5 TPA ha. There is no top soil or over burden generation during the mining activities. The committee observed that PP mentioned the total volume of mineralized dumps existing in the lease area is 70,900 M3 and proposed to

Mineral recovery from existing erstwhile dump (considered peak production): 4252.5 TPA there is a discrepancy in the quantity of mineral mentioned by PP. Therefore, the Committee suggested that the PP shall revise w.r.t. production capacity of Manganese, details of total excavation overburden/Top soil, also suggested the mineral quantity measurements should be in TPA only, so that the EIA/EMP report can reflect the impact of total excavation of mineral/ OB/ Top soil etc.

- IV. PP also needs to submit the full details of dumps existing in the mine lease area location of the dumps, total quantity of Mineral, waste, O.B, Top Spoil etc duly authenticated by the Department of Mines and Geology, Government of Madhya Pradesh
 - V. PP should submit an undertaking by way of affidavit as required as per Ministry's O.M No 3-50/2017 -IA. II(M) dated 30.05.2018 to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
 - VI. The Form-I and PFR PP should mention the total excavation quantity in TPA should be clearly provided in the PFR. The impact should also be ascertained for the total excavation.
 - VII. PP need to submit the Status of Forest Clearances.
4. PP vide letter no 27.09.2019 submitted the information online on 04 Oct 2019 accordingly the proposal is appraised in the EAC in its meeting held on 19-20, December, 2019 wherein PP submitted the following:
- I. PP submitted that the current mining plan has been approved for a period of 5 years. As per the approved mining plan the current proposal is only for mineral recovery from earlier mined out mineral dump [3 nos.] of already existing dumps before grant of the mine lease area only. This is depicted with its locations and year-wise production plan only and PP also submitted that will construct Retaining wall with the height of 2 m inside & outside along with drainage network around the proposed working area. Retaining wall will be constructed in such manner that the runoff within the working zone of mining pit will not join the nearby nalla. Runoff collected in working zone will be collected in settling ponds through drains. Drain will be constructed on the Northern side outside the retaining wall, which will connect with existing nallah within the lease area and Garland drain with Settling tank will be provided inside the retaining wall. PP also submitted that no mining activity will be carried during Monsoon i.e. June to September of every calendar year

II. Total water requirement for the mining operations is 50.0 m³/day among which 20.0 m³/ day for dust suppression on Haulage Roads, 20.0 m³/ day for Dust suppression on Approach Roads, 6.0 m³/ day for green belt development Greenbelt and 4.0 m³/ day is for domestic requirement water will be drawn from ground water source. PP submitted that the ML area comes under "Safe Category" as per guidelines of the CGWA. NOC from Central Ground Water Authority, New Delhi will be obtained and a copy of the same will be enclosed in the EIA report which will be submitted to MOEF&CC.

III. PP reported that the instant proposal is only proposed to reclaim the Manganese ore from dump with maximum production rate of 4252.50 Tons/ year total recoverable reserve is estimated as 21270 Tons. approved mining plan year-wise production plan for first 5 given as below:

S.no	Re-handling mineralizing	Recoverable @ 10%[m ³]	Production of Ore in Tons @ 3.0 BD
1 st Year	12600m ³	1260.0m ³	3780.00Tons
2 nd Year	12285m ³	1228.5m ³	3685.50 Tons
3 rd Year	12384 m ³	1238.4 m ³	3715.20 Tons
4 th Year	14175 m ³	1417.5 m ³	4252.50 Tons
5 th Year	13920 m ³	1392.0 m ³	4176.00 Tons
Total	65364 m ³	6536.4 m ³	19609.20 Tons

IV. PP submitted an undertaking by way of affidavit as required as per Ministry's O.M No 3-50/2017 -IA. II(M) dated 30.05.2018 to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. Confirming that all statutory requirements will be complied.

V. PP submitted the proof of Acknowledgements for seeking prior approval of Central Government under the Forest (Conservation) Act 1980 for obtaining the Forest clearances.

5. Based on the discussion held and document submitted Committee **recommended to prescribe Standard ToR (Annexure-I)** along with following additional ToR for preparation of EIA/EMP Report subject to submission following:

- I. Proof of application submitted to the Central Ground Water Authority(CGWA)/State Ground Water Authority(SGWA), as the case may be, for obtaining No Objection Certificate(NOC), as PP proposed to use Ground water as per the Ministry's OM F.No.21-103/2015-IA.III dated 2nd November, 2008.
- II. The total excavation waste generation, OB/IB, Top Soil generation, e.t.c.,

Additional Conditions:

- I. PP shall recover the Mg Ore as for 4 TPA from the existing Dumps and shall not make any new pits for mining Manganese Ore.
- II. PP shall submit the clear detailed mineral recovery Plan along with the map demarcating the dump locations and volume exist and size of the dumps.
- III. PP should clearly bring out the safeguards for protecting the river, Nallah, water bodies exist in and around the mine lease area after studying their impacts during the mining operations and mitigate measurement plans.

2.25 Proposal under the provision of Notification dated 06.04.2018 and for expansion of production capacity from 15000 TPA to 84240 TPA (Feldspar & Quartz) of Para Magra Ganeshpura Mines (M.L. No. 08/95; Area: 136 Ha; 15000 TPA) located in Village: Ganeshpura, Tehsil: Kekri, District: Ajmer (Rajasthan) by M/s Stone Metals Private Ltd.

[File No: J-11015/171/2018-IA. II (M); Proposal No. IA/RJ/MIN/81518/2018, Consultant: Fulgro Environment & Engineering Services (I) Pvt Ltd]-Re-consideration of ToR

The proposal of M/s Stone Metals Private Ltd. is for expansion of production capacity from 15000 TPA to 84240 TPA (Feldspar & Quartz) of Para Magra Ganeshpura Mines (M.L. No. 08/95; Area: 136 Ha) located in Village: Ganeshpura, Tehsil: Kekri, District: Ajmer (Rajasthan). The mining lease area falls between 24°52'11.96"N to 25°52'52.26"N and Longitudes 75°12'34.58"E to 75°13'41.25"E on the Survey of India Topo-sheet No. 45 O/1.

2. The project falls under Schedule 1(a) of mining and is a Category- "A" as the mining lease area is greater than 100 Ha. PP submitted that for this mining project EC was obtained in the name of Shri P.C Agarwal under the EIA Notification 1994, vide Ministry's letter No. J-11015/5/1999-IA. II (M), dated 15.07.1999 for two mining lease Kalera Mine (135.325 Ha; 25000 TPA) and Para Magra Ganeshpura Mines (M.L. No. 08/95; Area: 136.0 Ha; 15000 TPA) of mineral Feldspar & Quartz.
3. As the Environmental Clearance for the above mentioned project was granted under EIA Notification 1994 the PP applied for ToR on 5.10.2018 as per provision of Ministry's Notification S.O. 1530(E) dated 6.04.2018 and submitted Form-1 & PFR. The proposal was placed in EAC meeting held during 15th November, 2018 wherein the proposal was deferred for want of requisite information. The Ministry vide letter dated 12.12.2018 requested PP to submit the information. PP uploaded the information on 26.10.2019. The proposal is now placed in EAC meeting held during 19-20 December, 2019. The information sought by EAC and reply submitted by PP is as follows:

i) The PP should also submit the updated form-1 for total excavation per annum (quantity of mineral, waste, O.B, top soil etc.).

PP submitted the updated form-1 wherein it has mentioned that total excavation from the mine would be 1, 96, 350 TPA (ROM) (Mineral – 84,240 MT, Reject – 21060 MT, Overburden – 91050 MT)

ii) Comparative of all the figures (waste, O.B, land use, water requirement, etc.) mentioned in the previous EC and what is proposed now, details of any modification/expansion/amendment/change of scope of work/method of mining etc. if any carried out after grant of EC, cluster certificate is required.

PP submitted the comparative figures which show that there is expansion of production, increase in effective area of mining, change in method of mining from manual to mechanized, slight increase in water requirement.

iii) Information as per annexure-1 to examine the proposal in light of common Cause Judgment dated 2.08.2017 and S.O. 804(E) dated 14.03.2017.

PP submitted the information as sought in annexure-1 of agenda, to examine the proposal in light of common Cause Judgment dated 2.08.2017 and S.O. 804(E) dated 14.03.2017

Observation of EAC: *The EC for the said mining lease was granted on 15.07.1999 for 15000 Tonnes and the production from 1999-2000 till 2010-11 is well within the EC capacity and thereafter there is no production from the mines. But the CTO for the mines was obtained in 2008 and mining prior to this without CTO is violation of Common Cause Judgment dated 2.08.2017. There is no violation of S.O. 804(E) dated 14.03.2017 and mining is well within the EC Capacity.*

4. During the meeting the Committee noted that previously one EC was granted for two mining leases viz. Kalera Mine (M.L. No. 07/1995; Area: 135.325 Ha; 25000 TPA) and Para Magra Ganeshpura Mines (M.L. No. 08/1995; Area: 136 Ha; 15000 TPA) in the name of Shri P.C Agarwal vide Ministry's letter No. J-11015/5/1999-IA. II (M), dated 15.07.1999. The leasee then transferred the mining lease to Shri Sanjay Chowdhari on 08.12.2005 which then transferred the lease in the name of M/s Stone Metals Private Ltd on 18.07.2011. PP also submitted a letter No AME/SAWAR/M.L.-8/1995/1513-15 dated 19.02.2015 as per which the validity of the said mining lease is extended upto 26.08.2048.
5. PP submitted that mining activity will be mechanized opencast method of mining with drilling and blasting. Excavator & Loader will be deployed for material handling and tippers for transportation of mineral. PP submitted that the total water requirement for the project is 10 KLD [8.0 KLD for Dust Suppression & 2.0 KLD for Drinking & Domestic purpose]. PP submitted that mine working does not intersect the ground water table.
6. PP submitted that proposal does not involve approval/clearance under Forest (Conservation) Act, 1972, Wildlife Protection Act, 1972 and CRZ Notification 2011.
7. Based on the information submitted and discussion held the Committee **recommended the proposal for grant of ToR** for total exaction of 1, 96, 350 TPA (Quartz & Feldspar – 84,240 MT (ROM), Reject – 21060 MT, Overburden – 91050 MT) from Ganeshpura Mines (M.L. No. 08/95; Area: 136 Ha; 15000 TPA) located in Village: Ganeshpura, Tehsil: Kekri, District: Ajmer (Rajasthan) by M/s Stone Metals Private Ltd. The Committee prescribed the following additional ToR along with Standard ToR (as per Annexure-1) for preparation of EIA/EMP Report after conducting public hearing.

Additional ToR:

- i. Total excavation (minerals, waste, top soil) to be excavated needs to be bring out clearly in production and development plan. Annual quantity of Quartz &

Feldspar needs to bring out clearly and should be combined. The mineable reserves, blocked reserves needs to be mentioned along with life of mine. PP should add an annexures showing the year-wise production and development plan (tabular format) till the end of life of mine. The location of mineral stacking, dumping sites, plantation and other infrastructures needs to bring out clearly in the mining plan. PP needs to bring out the waste to be generated during the entire life of mine and where it will be dumped/backfilled.

- ii. PP should submit an undertaking by way of affidavit as required as per Ministry's O.M No 3-50/2017 -IA. II(M) dated 30.05.2018 to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- iii. PP should provide in the EIA Report details of all the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after grant of EC.
- iv. PP should submit the revenue plan for mining lease, revenue plan should be superimposed on the satellite imaginary clearly demarcate the Govt. land, private land, agricultural land etc.
- v. PP should submit the real-time aerial footage & video of the mining lease area and of the transportation route.
- vi. PP should submit the detailed plan in tabular format (year-wise for life of mine) for afforestation and green belt development in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted.
- vii. PP should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through

rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.

- viii. PP should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.
- ix. PP should submit the year-wise, activity wise and time bound budget earmarked for EMP, occupational health surveillance & Corporate Environmental Responsibility needs to be submitted. The capital and recurring expenditure to be incurred needs to be submitted.
- x. PP should submit the measures/technology to be adopted for prevention of illegal mining and pilferage of mineral.
- xi. PP should submit the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.
- xii. PP should clearly show the transport route of the mineral and protection and mitigative measure to be adopted while transportation of the mineral. The impact from the center line of the road on either side should be clearly brought out supported with the line source modelling and isopleth. Further, frequency of testing of Poly Achromatic Hydrocarbon needs to be submitted along with budget. Based on the above study the compensation to be paid in the event of damage to the crop and land on the either side of the road needs to be mentioned. The PP should provide the source of equations used and complete calculations for computing the emission rate from the various sources.
- xiii. PP should clearly bring out that what is the specific diesel consumption and steps to be taken for reduction of the same. Year-wise target for reduction in the specific diesel consumption needs to be submitted.
- xiv. PP should bring out the awareness campaign to be carried out on various environmental issues, practical training facility to be provided to the environmental engineer/diploma holders, mining engineer/diploma holders, geologists, and other trades related to mining operations. Target for the same needs to be submitted.

- xv. The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.
- xvi. PP should ensure that only NABET accredited consultant shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that accreditation of consultant shall be valid during the collection of baseline data, preparation of EIA/EMP report and during the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and PP and consultant are fully accountable for the same.
- xvii. PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
- xviii. PP should submit the District Survey Report as per S.O. 3611(E) dated 25.07.2018.
- xix. All the certificates viz. Involvement of Forest land, distance from protected area, list of flora & fauna should be duly authenticated by Chief Wildlife Warden & Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.

The meeting ended with thanks to the chair.

Annexure-I

Standard Terms of Reference (TOR) for Mining Project

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

- 9) 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.
- 10) 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.
- 11) 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.
- 12) 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.
- 13) 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.
- 14) 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.
- 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 16) 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.
- 17) 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.

- 18) 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.
- 19) 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.
- 20) 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).
- 21) 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.
- 22) 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.

- 23) 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.
- 24) 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.
- 25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 26) 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.
- 27) 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.
- 28) 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.
- 29) 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.
- 30) 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.
- 31) 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.
- 32) 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.
 - 33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
 - 34) 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.
 - 35) 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.
 - 36) 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.
 - 37) 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.
 - 38) 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.
 - 39) 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.
 - 40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

- 41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 42) A Disaster Management Plan shall be prepared and included in the EIA/EMP Report.
- 43) 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.
- 44) 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.

Standard Tor Beneficiation

1. The alternate sites considered, the relative merits and demerits and the reasons for selecting the proposed site for the Beneficiation Plant should be indicated.
2. Details of the technology and process involved for beneficiation should be given.
3. Location of the proposed Plant w.r.t. the source of raw material and mode of transportations of the ore from mines to the beneficiation plant should be justified.
4. Treatment of run of mine (ROM) and or of the fines/waste dump should be spelt out.
5. Estimation of the fines going into the washings should be made and its management described.
6. Details of the equipment, settling pond etc. should be furnished.
7. Detailed material balance should be provided.
8. Sources of raw material and its transportation should be indicated. Steps proposed to be taken to protect the ore from getting air borne should be brought out.
9. Management and disposal of tailings and closure plan of the tailing pond, if any after the project is over, should be detailed in a quantified manner.
10. 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 also be indicated.
11. A copy of the document in support of the fact that the Proponent is the rightful lessee of the unit should be given.
12. All documents including EIA and public hearing should be compatible with one another in terms of the production levels, waste generation and its management and technology and should be in the name of the lessee.
13. All corner coordinates of the Unit, superimposed on a High Resolution Imagery/Toposheet should be provided. Such an Imagery of the proposed Unit should clearly show the land use and other ecological features of the study area (core and buffer zone).
14. It should be clearly indicated 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 EIA Report.

15. Issues relating to Safety should be detailed. The proposed safeguard measures in each case should also be provided. Disaster management plan shall be prepared and included in the EIA/EMP Report.
16. The study area will comprise of 10 km zone around the Plant.
17. Cumulative impact study of both Beneficiation Plant with suggested mitigation measures as per the study should be described.
18. Location of Railway siding with its handling capacity and safety measures should be indicated.
19. Option to provide only silo for storage of minerals instead of open stacking to avoid fugitive dust should be explored and arrangements finalized justified.
20. 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 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.
21. Details of the land for any Over Burden Dumps outside the lease, such as extent of land area, distance from lease, its land use, R&R issues, if any, should be given.
22. 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.
23. 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.
24. 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.
25. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
26. A study shall be got done to ascertain the impact of the 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.

27. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, 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.
28. 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 along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
29. Proximity to Areas declared as 'Critically Polluted' shall also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB/CPCB shall be secured and furnished to the effect that the proposed activities could be considered.
30. Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the unit w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
31. 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 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.
32. 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 unit in the pre-dominant downwind direction. The mineralogical composition of PM₁₀, particularly for free silica, should be given.

33. 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 modeling 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.
34. 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.
35. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be secured and copy furnished.
36. 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.
37. 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.
38. 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 brought out.
39. 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. 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 the pollution.
40. 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.

41. Details of the onsite shelter and facilities to be provided to the workers should be included in the EIA report.
42. 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 should be detailed.
43. 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.
44. 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.
45. Public hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
46. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
47. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
48. A brief background of the Project, its financial position, Group Companies and legal issues etc should be provided with past and current important litigations if any.
49. Benefits of the Project, if the project is implemented should be outlined. The benefits of the projects shall clearly indicate environmental, social, economic, employment potential, etc.
50. Besides the above, the below mentioned general points are also to be followed:-

a) Executive Summary of the EIA/EMP Report

b) All documents to be properly referenced with index and continuous page numbering.

c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.

- d) 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.
- e) Where the documents provided are in a language other than English, an English translation should be provided.
- f) The Questionnaire for environmental appraisal of project as devised earlier by the Ministry shall also be filled and submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006- IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should also be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
- i) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified Report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project by the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable

**Standard EC conditions as per Ministry's OM No. 22-34/2018-IA.III,
dated 08.01.2019**

I. Statutory compliance

- 1) This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
- 2) The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India &Ors before commencing the mining operations.
- 3) The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India &Ors.
- 4) This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.
- 5) This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.
- 6) Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.
- 7) The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.

- 8) The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.
- 9) The Project Proponent shall follow the mitigation measures provided in MoEFCC's 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".
- 10) The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.
- 11) A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
- 12) State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
- 13) The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.
- 14) The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

II. Air quality monitoring and preservation

- 15) The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.
- 16) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board.

III. Water quality monitoring and preservation

- 1) In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEFCC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
- 2) 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. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

- 3) Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- 4) The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data 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, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.
- 5) Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a

suitable location near the main gate of the Company. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.

- 6) Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC annually.
- 7) Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
- 8) The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.

IV. Noise and vibration monitoring and prevention

- 9) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
- 10) 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 /night hours.
- 11) The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety

and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

V. Mining plan

- 12) The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.
- 13) The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.
- 14) The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEFCC and its concerned Regional Office.

VI. Land reclamation

- 15) The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like

height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.

- 16) The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
- 17) The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.
- 18) The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
- 19) The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.
- 20) Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.
- 21) Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which

shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.

- 22) The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.

VII. Transportation

- 23) No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. 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 Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.
- 24) The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

VIII. Green Belt

- 25) The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.
- 26) The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.
- 27) The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.
- 28) The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.
- 29) And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.

IX. Public hearing and human health issues

- 30) The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEFCC Regional Office and DGMS on half-yearly basis.
- 31) The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.
- 32) The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray.

Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).

- 33) The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1),Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEFCC annually along with details of the relief and compensation paid to workers having above indications.
- 34) The Project Proponent shall ensure that 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.
- 35) Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.
- 36) The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.

X. Corporate Environment Responsibility (CER)

- 37) The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated

01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.

- 38) Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEFCC and its concerned Regional Office.

XI. Miscellaneous

- 39) The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.
- 40) 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.
- 41) The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.
- 42) A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEFCC.
- 43) The concerned Regional Office of the MoEFCC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEFCC officer(s) by furnishing the requisite data / information / monitoring reports.

Annexure-IV

Recommendation of CSIR-NEERI Report on "Carrying Capacity Study for Environmentally Sustainable Iron and Manganese Ore Mining Activity in Keonjhar, Sundargarh and Mayurbhanj districts of Odisha State:

The Committee has also deliberated the various specific recommendations of carrying capacity study report conducted by CSIR-NEERI w.r.t. mining proposal of Iron Ore and/or manganese in the State of Odisha. There are recommendation which needs to be implemented by the State Govt. of Odisha and Project Proponent.

- 1) Project Proponent and Department of Steel & Mines, Govt. of Odisha shall ensure the implementation of recommendations of carrying capacity study report conducted by CSIR-NEERI w.r.t. mining proposal of Iron Ore and/or manganese in the State of Odisha.
- 2) Department of Steel & Mines, Govt. of Odisha should prepare 5 years regional plan for annual iron ore requirement from the state, which in turn shall be met from different mines/zones (e.g. Joda, Koira.) in the state. Accordingly, sustainable annual production (SAP) for each zone/mine may be followed adopting necessary environmental protection measures.
- 3) Project Proponent shall construct the cement concrete road from mine entrance and exit to the main road with proper drainage system and green belt development along the roads and also construction of road with minimum 300 m inside the mine. This should be done within one year for existing mines and new mine should have since beginning. The Department of Steel & Mines, Govt. of Odisha should ensure the compliance and should not issue the Mining Permits, if mine lease holder has not constructed proper cement concrete road as suggested.
- 4) The Committee observed that as per the recommendations of NEERI report the PP needs to do regular vacuum cleaning of all mineral carrying roads aiming at "zero dust re-suspension" within 3 months.
- 5) Project Proponent shall monitor the environmental quality parameters as per EC and CTE/CTO conditions, and implementation of suggested measures for control of road dust and air pollution. Odisha State Pollution Control Board has to ensure the compliance of CTE/CTO. Regional office of the MoEF&CC, Bhubaneswar shall monitor the compliance of the EC conditions. Regional office of the Indian Bureau of Mines (IBM) shall monitor the compliance of mining plan and progressive mine closure plan. Any violation by mine lease holder may invite actions per the provisions of applicable Acts.
- 6) Project Proponent shall ensure the compliance of Suggested Ore Transport Mode (SOTM) with association of the State Government of Odisha. All existing mines should ensure adoption of SOTM within next 5 years. New

mines or mines seeking expansion should incorporate provision of SOTM in the beginning itself, and should have system in place within next 5 years.

- 7) The State Govt. of Odisha shall ensure dust free roads in mining areas wherever the road transportation of mineral is involved. The road shoulders shall be paved with fence besides compliance with IRC guidelines. All the roads should have proper drainage system and apart from paving of entire carriage width the remaining right of way should have native plantation (dust capturing species). Further, regular maintenance should also be ensured by the Govt. of Odisha. Progress on development of dust free roads, implementation of SOTM, increased use of existing rail network, development of additional railway network/conveyor belt/ pipelines etc. shall be submitted periodically to Regional office of the MoEF&CC.
- 8) Project Proponent shall develop the parking plazas for trucks with proper basic amenities/ facilities inside the mine. This should be done within one year for existing mines and new mines should have since beginning.
- 9) Department of Steel & Mines shall ensure the construction of NH 215 as minimum 4 lane road with proper drainage system and plantation and subsequent regular maintenance of the road as per IRC guidelines. Construction of other mineral carrying roads with proper width and drainage system along with road side plantation to be carried out. This shall be completed within 2 Years.
- 10) Regular vacuum cleaning of all mineral carrying roads aiming at "Zero Dust Re- suspension" shall be adopted by PWD / NHAI/ Mine Lease Holders within a time Period of 3 months for existing roads..
- 11) In case the total requirement of iron ore exceeds the suggested limit for that year, permission for annual production by an individual mine may be decided depending on approved EC capacity (for total actual dispatch) and actual production rate of individual mine during last year or any other criteria set by the State Govt., i.e. Dept. of Steel & Mines. Department of Steel and Mines in consultation with Indian Bureau of Mines-RO should prepare in advance mine-wise annual production scenario so that demand for iron ore can be anticipated, and actual production/dispatch does not exceed the suggested annual production.
- 12) R&D studies towards utilization of low-grade iron ore should be conducted through research/academic institutes like IMMT, Bhubaneswar, NML, Jamshedpur, and concerned metallurgical departments in IITs, NITs etc., targeting full utilization of low-grade iron ore (Fe content upto 45% by 2020 and upto 40% by 2025). In fact, life cycle assessment of whole process including environmental considerations should be done for techno-economic and environmental viability. R&D studies on utilization of mine wastewater having high concentration of Fe content for different commercial

applications in industries such as cosmetics, pharmaceutical, paint industry should also be explored. Responsibility: IBM, Dept. of Steel & Mines, Individual Mine Lease Holders.

- 13) The mining activity in Joda-Koira sector is expected to continue for another 100 years, therefore, it will be desirable to develop proper rail network in the region. Rail transport shall not only be pollution free mode but also will be much economical option for iron ore transport. The rail network and/or conveyor belt system upto public railway siding needs to be created. The total length of the conveyor belt system/ rail network to be developed from mines to nearest railway sidings by 11 mines in Joda region is estimated to be about 64 km. Similarly, in Koira region, total length of rail network/ conveyor system for 8 mines (under SOTM 1 & 2) is estimated to be around 95 km. Further, it is suggested to develop a rail network connecting Banspani (Joda region) and Roxy railway sidings in Koira region. Responsibility: Dept. of Steel & Mines, Govt. of Odisha and Concerned Mines along with Indian Railways. Time Period: Maximum 7 years (by 2025). The Department of Steel & Mines, Govt. of Odisha should follow-up with the concerned Departments and railways so that proposed proper rail network is in place by 2025.
- 14) State Govt. of Odisha shall make all efforts to ensure exhausting all the iron & manganese ore resources in the existing working mines and from disturbed mining leases/zones in Joda and Koira region. The criteria suggested shall be applicable while suggesting appropriate lease area and sustainable mining rate. Responsibility: Dept. of Steel & Mines, Govt. of Odisha.
- 15) **Mining Operations/Process Related:** Project Proponent shall implement the following mitigation measures: (i) Appropriate mining process and machinery (viz. right capacity, fuel efficient) should be selected to carry out various mining operations that generate minimal dust/air pollution, noise, wastewater and solid waste. e.g. drills should either be operated with dust extractors or equipped with water injection system. (ii) After commencement of mining operation, a study should be conducted to assess and quantify emission load generation (in terms of air pollution, noise, waste water and solid waste) from each of the mining activity (including transportation) on annual basis. Efforts should be made to further eliminate/ minimize generation of air pollution/dust, noise, wastewater, solid waste generation in successive years through use of better technology. This shall be ensured by the respective mine lease holders. (iii) Various machineries/equipment selected (viz. dumpers, excavators, crushers, screen plants etc.) and transport means should have optimum fuel/power consumption, and their fuel/power consumption should be recorded on monthly basis. Further, inspection and maintenance of all the machineries/ equipment/ transport vehicles should be followed as per manufacturer's instructions/ recommended time schedule and record should be maintained by the respective mine lease holders. (iv) Digital processing of the entire

lease area using remote sensing technique should be carried out regularly once in 3 years for monitoring land use pattern and mining activity taken place. Further, the extent of pit area excavated should also be demarcated based on remote sensing analysis. This should be done by ORSAC (Odisha Space Applications Centre, Bhubaneswar) or an agency of national repute or if done by a private agency, the report shall be vetted/ authenticated by ORSAC, Bhubaneswar. Expenses towards the same shall be borne by the respective mine lease holders. Responsibility: Individual Mine Lease Holders.

16) **Air Environment Related:** Project Proponent shall implement the following mitigation measures: (i) Fugitive dust emissions from all the sources should be controlled regularly on daily basis. Water spraying arrangement on haul roads, loading and unloading and at other transfer points should be provided and properly maintained. Further, it will be desirable to use water fogging system to minimize water consumption. It should be ensured that the ambient air quality parameters conform to the norms prescribed by the CPCB in this regard. (ii) The core zone of mining activity should be monitored on daily basis. Minimum four ambient air quality monitoring stations should be established in the core zone for SPM, PM₁₀, PM_{2.5}, SO₂, NO_x and CO monitoring. Location of air quality monitoring stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board (based on Emission Load Assessment Study). The number of monitoring locations may be more for larger capacity mines and working in larger area. Out of four stations, one should be online monitoring station in the mines having more than 3 MTPA EC Capacity. (iii) Monitoring in buffer zone should be carried out by SPCB or through NABET accredited agency. In addition, air quality parameters (SPM, PM₁₀, PM_{2.5}, SO₂, NO_x and CO) shall be regularly monitored at locations of nearest human habitation including schools and other public amenities located nearest to source of the dust generation as applicable. (iv) Emissions from vehicles as well as heavy machinery should be kept under control and regularly monitored. Measures should be taken for regular maintenance of vehicles used in mining operations and in transportation of mineral. (v) The vehicles shall be covered with a tarpaulin and should not be overloaded. Further, possibility of closed container trucks should be explored for direct to destination movement of iron ore. Air quality monitoring at one location should also be carried out along the transport route within the mine (periodically, near truck entry and exit gate), Responsibility: Individual Mine Lease Holders and SPCB.

17) **Noise and Vibration Related:** Project Proponent shall implement the following mitigation measures: (i) Blasting operation should be carried out only during daytime. Controlled blasting such as Nonel, should be practiced. The mitigation measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented. (ii) Appropriate

measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs. (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone. Further, date, time and distance of measurement should also be indicated with the noise levels in the report. The data should be used to map the noise generation from different activities and efforts should be made to maintain the noise levels with the acceptable limits of CPCB (CPCB, 2000) (iv) Similarly, vibration at various sensitive locations should be monitored atleast once in month, and mapped for any significant changes due to successive mining operations. Responsibility: Individual Mine Lease Holders.

- 18) **Water/Wastewater Related:** Project Proponent shall implement the following mitigation measures: (i) In general, the mining operations should be restricted to above ground water table and it should not intersect groundwater table. However, if enough resources are estimated below the ground water table, the same may be explored after conducting detailed geological studies by GSI and hydro- geological studies by CGWB or NIH or institute of national repute, and ensuring that no damage to the land stability/ water aquifer system shall happen. The details/ outcome of such study may be reflected/incorporated in the EIA/EMP report of the mine appropriately. (ii) Natural watercourse and/or water resources should not be obstructed due to any mining operations. Regular monitoring of the flow rate of the springs and perennial nallas should be carried out and records should be maintained. Further, regular monitoring of water quality of nallas and river passing thorough the mine lease area (upstream and downstream locations) should be carried out on monthly basis. (iii) Regular monitoring of ground water level and its quality should be carried out within the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out on monthly basis. (iv) In order to optimize water requirement, suitable conservation measures to augment ground water resources in the area should be undertaken in consultation with Central Ground Water Board (CGWB). (v) Suitable rainwater harvesting measures on long term basis should be planned and implemented in consultation with CGWB, to recharge the ground water source. Further, CGWB can prepare a comprehensive plan for the whole region. (vi) Appropriate mitigation measures (viz. ETP, STP, garland drains, retaining walls, collection of runoff etc.) should be taken to prevent pollution of nearby river/other water bodies. Water quality monitoring study should be conducted by State Pollution Control Board to ensure quality of surface and ground water sources on regular basis. The study can be conducted through NABL/ NABET approved water testing laboratory. However, the report should be vetted by SPCB. (vii) Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated in ETP so as to conform to the discharge standards applicable. (viii) Oil and grease trap should be installed before discharge of workshop effluents. Further, sewage treatment

plant should be installed for the employees/colony, wherever applicable. (ix) Mine lease holder should ensure that no silt originating due to mining activity is transported in the surface water course or any other water body. Appropriate measures for prevention and control of soil erosion and management of silt should be undertaken. Quantity of silt/soil generated should be measured on regular basis for its better utilization. (x) Erosion from dumps site should be protected by providing geo-textile matting or other suitable material, and thick plantation of native trees and shrubs should be carried out at the dump slopes. Further, dumps should be protected by retaining walls. (xi) Trenches / garland drain should be constructed at the foot of dumps to arrest silt from being carried to water bodies. Adequate number of check dams should be constructed across seasonal/perennial nallas (if any) flowing through the mine lease areas and silt be arrested. De-silting at regular intervals should be carried out and quantity should be recorded for its better utilization, after proper soil quality analysis. (xii) The water so collected in the reservoir within the mine should be utilized for the sprinkling on hauls roads, green belt development etc. (xiii) There should be zero waste water discharge from the mine. Based on actual water withdrawal and consumption/ utilization in different activities, water balance diagram should be prepared on monthly basis, and efforts should be made to optimize consumption of water per ton of ore production in successive years. Responsibility: Individual Mine Lease Holders, SPCB and CGWB.

- 19) **Land/ Soil/ Overburden Related:** Project Proponent shall implement the following mitigation measures: (i) The top soil should temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long (not more than 3 years or as per provisions mentioned in the mine plan/ scheme). The topsoil should be used for land reclamation and plantation appropriately. (ii) Fodder plots should be developed in the non-mineralised area in lieu of use of grazing land, if any. (iii) Over burden/ low grade ore should be stacked at earmarked dump site (s) only and should not be kept active for long period. The dump height should be decided on case to case basis, depending on the size of mine and quantity of waste material generated. However, slope stability study should be conducted for larger heights, as per IBM approved mine plan and DGMS guidelines. The OB dump should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles should be undertaken for stabilization of the dump. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Proper records should be maintained regarding species, their growth, area coverage etc. (iv) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from mine operation, soil, OB and mineral dumps. The water so collected can be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly de-silted, particularly after monsoon and should be maintained properly. Appropriate documents should be maintained. Garland drain of appropriate size, gradient and length should be constructed for mine pit, soil. OB and mineral dumps and sump capacity

should be designed with appropriate safety margin based on long term rainfall data. Sump capacity should be provided for adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and de-silted at regular intervals. (v) Backfilling should be done as per approved mining plan/scheme. There should be no OB dumps outside the mine lease area. The backfilled area should be afforested, aiming to restore the normal ground level. Monitoring and management of rehabilitated areas should continue till the vegetation is established and becomes self-generating. (vi) Hazardous waste such as, waste oil, lubricants, resin, and coal tar etc. should be disposed off as per provisions of Hazardous Waste Management Rules, 2016, as amended from time to time. Responsibility: Individual Mine Lease Holders.

- 20) **Ecology/Biodiversity (Flora-Fauna) Related:** Project Proponent shall implement the following mitigation measures: (i) All precautionary measures should be taken during mining operation for conservation and protection of endangered fauna namely elephant, sloth bear etc. spotted in the study area. Action plan for conservation of flora and fauna should be prepared and implemented in consultation with the State Forest and Wildlife Department within the mine lease area, whereas outside the mine lease area, the same should be maintained by State Forest Department. (ii) Afforestation is to be done by using local and mixed species saplings within and outside the mining lease area. The reclamation and afforestation is to be done in such a manner like exploring the growth of fruit bearing trees which will attract the fauna and thus maintaining the biodiversity of the area. As afforestation done so far is very less, forest department needs to identify adequate land and do afforestation by involving local people in a time bound manner. (iii) Green belt development carried out by mines should be monitored regularly in every season and parameters like area under vegetation/plantation, type of plantation, type of tree species /grass species/scrubs etc., distance between the plants and survival rate should be recorded. (iv) Green belt is an important sink of air pollutants including noise. Development of green cover in mining area will not only help reducing air and noise pollution but also will improve the ecological conditions and prevent soil erosion to a greater extent. Further, selection of tree species for green belt should constitute dust removal/dust capturing plants since plants can act as efficient biological filters removing significant amounts of particulate pollution. Thus, the identified native trees in the mine area may be encouraged for plantation. Tree species having small leaf area, dense hair on leaf surface (rough surface), deep channels on leaves should be included for plantation. (v) Vetiver plantation on inactive dumps may be encouraged as the grass species has high strength of anchoring besides medicinal value. (vi) Details of compensatory afforestation done should be recorded and documented by respective forest divisions, and State Forest Department should present mine-wise annual status, along with expenditure details. Responsibility: Individual Mine Lease Holders and State Forest & Wildlife Department.

- 21) **Socio-Economic Related:** Project Proponent shall implement the following mitigation measures: (i) Public interaction should be done on regular basis and social welfare activities should be done to meet the requirements of the local communities. Further, basic amenities and infrastructure facilities like education, medical, roads, safe drinking water, sanitation, employment, skill development, training institute etc. should be developed to alleviate the quality of life of the people of the region. (ii) Land outtees and land losers/affected people, if any, should be compensated and rehabilitated as per the national/state policy on Resettlement and Rehabilitation. (iii) The socio-economic development in the region should be focused and aligned with the guidelines/initiatives of Govt. of India/ NITI Aayog around prosperity, equality, justice, cleanliness, transparency, employment, respect to women, hope etc. This can be achieved by providing adequate and quality facilities for education, medical and developing skills in the people of the region. District administration in association with mine lease holders should plan for "Samagra Vikas" of these blocks well as other blocks of the district. While planning for different schemes in the region, the activities should be prioritized as per Pradhan Mantri Khanij Kshetra Kalyan Yojna (PMKKKY), notified by Ministry of Mines, Govt. of India, vide letter no. 16/7/2017-M.VI (Part), dated September 16, 2015. Responsibility: District Administration and Individual Mine Lease Holders.
- 22) **Road Transport Related:** Project Proponent shall implement the following mitigation measures: (i) All the mine lease holders should follow the suggested ore transport mode (SOTM), based on its EC capacity within next 5 years. (ii) The mine lease holders should ensure construction of cement road of appropriate width from and to the entry and exit gate of the mine. Further, maintenance of all the roads should be carried out as per the requirement to ensure dust free road transport. (iii) Transportation of ore should be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore/dust takes place. Further, air quality in terms of dust, PM₁₀ should be monitored near the roads towards entry & exit gate on regular basis, and be maintained within the acceptable limits. Responsibility: Individual Mine Lease Holders and Dept. of Steel & Mines.
- 23) **Occupational Health Related:** Project Proponent shall implement the following mitigation measures: (i) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects periodically. (ii) Occupational health surveillance program for all the employees/workers (including casual workers) should be undertaken periodically (on annual basis) to observe any changes due to exposure to dust, and corrective measures should be taken immediately, if needed. (iii) Occupational health and safety measures related awareness programs including identification of work related health hazard, training on malaria eradication, HIV and health effects on exposure to mineral dust etc., should be carried out for all the workers on regular basis. A full time qualified doctor should be engaged for

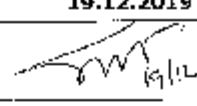
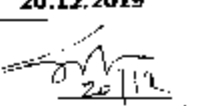
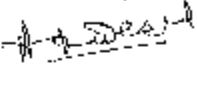
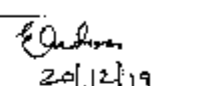
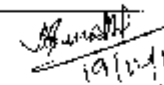
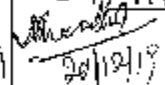

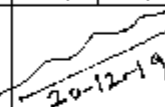

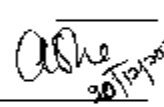
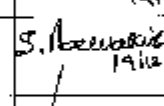
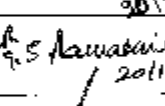
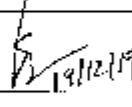

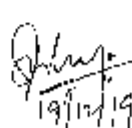
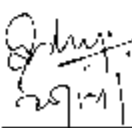
the purpose. Periodic monitoring (on 6 monthly basis) for exposure to respirable minerals dust on the workers should be conducted, and record should be maintained including health record of all the workers. Review of impact of various health measures undertaken (at an interval of 3 years or less) should be conducted followed by follow-up of actions, wherever required. Occupational health centre should be established near mine site itself. Responsibility: Individual Mine Lease Holders and District Administration (District Medical Officer).

Annexure-V

Standard EC conditions for Mineral Beneficiation Plants:

Standard EC conditions for mineral beneficiation plants which are mentioned in Ministry's OM No. 22-234/2018-IA-III dated 09th August 2018.

LIST OF EXPERT APPRAISAL COMMITTEE (Non Coal Mining Sector)

Sl. No.	Name and address	Designation	Signature 19.12.2019	Signature 20.12.2019
1.	Dr. S.R. Wate, 146/149, Nagar Vikas Society, Narendra Nagar, Nagpur-440015, Maharashtra	Chairman	 19/12/19	 20/12/19
2.	Dr. Ajay Deshpande, Flat A-101, Pristino Privilege Apartments, Opposite Prism, Near RohanNilay, Behind Spicer College, Aundh, Pune 410007, Maharashtra	Member	---	
3.	Shri G.P. Kundargi, Plu. No. 32, MOIL Valika, Chicholi Road, Fort, Nagpur 441501, Maharashtra	Member	---	 20/12/19
4.	Dr. A.K. Malhotra, C-6, SubharnaNiketan, Road No. 41, Pitampura, Delhi-110034	Member	 19/12/19	 20/12/19
5.	Dr. Gurdeep Singh, Department of Environmental Science & Engg. Indian Institute of Technology (Indian School of Mines), Dhanbad 826004	Member	 19-12-19	 20-12-19
6.	Shri B Ramesh Kumar, H.No. 6 I 134/6, Balram Compound, Padmarao Nagar, Secunderabad-500025, Andhra Pradesh	Member	---	---
7.	Dr. Asherajvanshi, WIL, P.B# 10, Chandrabani, Dehradun-248001, Uttarakhand	Member	 19/12/2019	 20/12/2019
8.	Prof. S. Ramakrishna Rao, D.No. 50-120-9/1, North Ex., Seethamadhara, Visakhapatnam-530013, Andhra Pradesh	Member	 19/12/19	 20/12/19
9.	Shri Santosh Gupta, Flat No. 405, Gaur Green Vista, NvayKhand I, Indrapuram, Ghaziabad, UP-201014	Member	 19/12/19	 20/12/19
10.	Dr. Parimal Chandra Bhattacharjee, A/3 Aiyana Housing Complex Maligaon, Guwahati- 781011, Assam	Member	---	---
11.	Prof. Mukesh Khare, Department of Civil Engineering, IIT, Delhi	Member	---	---
12.	Representative of DGMS Head Office, Sarcar Patel Nagar, Dhanbad, Jharkhand 826001 dg@dgms.gov.in	Member	---	---
13.	Shri Mantu Biswas, Controller of Mines, IBM Block D, Second Floor, Indira Bhawan, Civil Lines, Nagpur - 440001	Member	---	---
14.	Shri V.K. Soni, Scientist 'C', IFC, New Delhi - 110 003	Member	---	---
15.	Shri Sundeep, Director IA-Division (Non-coal Mining sector) Agri-A106, Indira Paryavaran Bhawan, Ministry of Environment, Forest & Climate Change, Connaught Road, New Delhi-110003	Member Secretary	 19/12/19	 20/12/19

Agenda for 12th EAC Meeting to be held on during 19-20, December 2019