

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

SUMMARY RECORD OF 14th MEETING OF THE COMMITTEE OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF NON-COAL MINING PROJECTS CONSTITUTED UNDER THE EIA NOTIFICATION, 2006.

The 14th 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 **February 26-27, 2020**. 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 13th EAC Meeting held during January 30-31, 2020:

The minutes of 12th and 13th Meeting of EAC held during 19-20 December 2019 and January 30-31, 2020 respectively was placed before the members of the Committee. Certain typo error and mismatch in dates were highlighted before the committee for consideration and approval for modification in the Minutes. The committee confirmed the minutes with proposed modification.

(2.1) Mining of 4.0 LTPA of Malkapuram Dolomite (Minor Mineral) from mining lease area 73.113 Ha, located at Kochervu and Malkapuram Villages, Dhone Mandal, Kurnool District, Andhra Pradesh by M/s Sri Balaji Works [Agenda No 2.3; Proposal No. IA/AP/MIN/9059/2012; Consultant- Ind Tech House Consult] –Consideration of EC Regarding.

The proposal of M/s Sri Balaji Works is for the production of 4.0 lakh Tonnes of Dolomite from Malkapuram Dolomite Mine (ML area 73.113 Ha) located at Kochervu and Malkapuram Villages, Dhone Mandal, Kurnool District, Andhra Pradesh. The mine site is located between 15°20'39.20" to 15°21'02.60"N latitude, & 77°54'37.60" to 77°55'41.50"E longitude. The Mining Lease Area is a part of the Survey of India Topo-sheet No. 57/E/15 & 57 I/3.

2. The project initially at the time of application to Ministry 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 50 Ha. But now it is a category 'B' as the mining lease area is less than 100 Ha in pursuant to S.O. 3977(E) dated 14.08.2018. But as the proposal was already under appraisal by the EAC the same has been finalized by EAC in pursuant to Ministry O.M. No. J-11013/41/2006-IA. II(M) dated 23.10.2017.

3. The PP vide proposal No IA/AP/MIN/9059/2012 applied online for grant of ToR on 11.12.2012 submitted Form-1 and Pre-Feasibility Report. The proposal was considered in EAC meeting held on 13-15th March 2013, wherein, the Committee recommended for grant of ToR. The ToR was issued vide Lr. No. J-11015/460/2012. IA. II (M) dated 30.04.2013. As the Public Hearing was delayed extension in ToR was granted vide Lr. No. J-11015/460/2012. IA. II (M) dated 13.04.2016 which was valid up to 30.04.2017.

4. The PP vide proposal No. **IA/AP/MIN/9059/2012** applied online for grant of EC on 07.04.2017 i.e. before the expiry of ToR and submitted EIA/EMP Report after conducting public hearing. The proposal was considered in EAC meeting held on **May 29-30, 2017** wherein the Committee deferred the proposal as the PP did not attend the meeting. The proposal was then considered in EAC meeting held on **28th June 2017** wherein the Committee deferred the proposal for want of requisite information. The PP submitted the desired information vide LR No SBW/MOEF&CC/2017 dated 06.12.2017. As the documents submitted by PP were not complete in all respect the requisite information was sought from PP on 11.01.2018. The PP vide Lr. No SBW/MOEF&CC/2018 dated 19.02.2018 submitted the information and proposal was then re-considered in EAC meeting held on **March 22-23, 2018** wherein the Committee deferred the proposal for want of requisite information. The Ministry vide Lr No J-11015/460/2012-IA. II(M) dated 18.04.2018 requested PP to submit the requisite information. The PP vide LR No SBW/MOEF&CC/2018 dated 30/06/2018 submitted the information and the proposal was considered in EAC meeting held on **19-20 July 2018**. During the meeting PP vide LR No. No SBW/MOEF&CC/2018 dated 20.07.2018 submitted the map showing no mining area, revised budget for EMP, Occupational Health, & CER, and undertaking from PP and consultant. The Committee in its meeting held on 19-20 July 2018 deferred the proposal as the PP submitted the information with some changes in the modified mining plan and such changes was not brought to the notice of the Committee neither the PP has submitted any justification for the same.

PP submitted the clarification vide letter dated 26.10.2018 regarding modification in mining plan and proposal was then considered in EAC meeting held on **November 15-16, 2018** wherein Committee deferred the proposal because PP has come to the meeting without accredited consultant. The proposal was thereafter de-listed as PP did not submit the information on time. The PP submitted the requisite information 4.03.2019 and the proposal is placed in EAC meeting held on **June 27-28, 2019** wherein the EAC deferred the proposal for want of requisite information. PP submitted the information online on 7.01.2020 and the proposal is now placed in EAC meeting held during **26-27 February, 2020** wherein Committee deliberated on the following information so far submitted by PP.

5. The PP submitted the letter of intent issued by industries and commerce vide letter No. 12361/M.I (1)/2009 dated 18.06.2012 wherein it was recommended to grant mining lease for Dolomite over an extent of 73.113 Ha for 20 Years. In the same letter a time period of 6 months was given for submission of EC, Mining Plan and Consent to Operate from the date of issuance of this LOI. The EAC in its Meeting held on 22-23 march 2018 requested PP to obtain a Valid LOI as six months has already lapsed. The PP submitted Letter No Lr.No.1182/R4-2/2008 dated 17.07.2016 issued by Department of Geology and Mining, Govt of Andhra Pradesh wherein PP was requested to submit the copy of valid mining plan/scheme/, EC/CFE & CFO or acknowledgment for filling the same for taking further action for grant of lease. The Committee observed that as time period for submission of the above documents was not mentioned in the aforesaid letter it may be presumed that Govt. of Andhra Pradesh has extended the validity of Lol till the submission of the above documents.

Observation of EAC: *Committee previously asked PP to submit the cluster certificate as per provision of S.O.2269 (E) dated 1.07.2016 to ascertain the cluster situation if any.*

PP in its reply dated 7.01.2020 submitted the letter No. 8227/M4/2006 dated 29.06.2019 issued by Assistant Director, Mines & Geology, Kurnool District, Govt. of Andhra Pradesh wherein it has mentioned that there are two mining leases within 500 meters which was granted before 9.09.2013. PP submitted that as the lease was granted before 9.09.2013 therefore no cluster situation is applicable as per S.O.2269 (E) dated 1.07.2016.

6. The mining Plan along with Progressive Mine Closure Plan was approved by Office of the Joint Director of Mines and Geology, Govt. of A.P., Hyderabad vide Letter No. 7356/MP-KNL/2012 dated 28.02.2013. PP submitted that as EAC sought

clarification on the forest land involved in the mining lease they have approached DMG & Forest Department and site verification was done by both the agencies and based on the revised mine lease sketch and lease boundary coordinate and to leave a safety barrier of 50 meters as proposed by Forest Department the Mining Plan along with Progressive Mine Closure Plan was modified and approved by Office of the Joint Director of Mines and Geology, Govt. of A.P., Hyderabad vide Letter No. 4130/MMP-KNL/2017 dated 02.11.2017 . The Committee observed that there are other changes in this mining plan as compared to initial mining plan. The PP thus again Modified the Mining Plan along with Progressive Mine Closure Plan and approved by Office of the Joint Director of Mines and Geology, Govt. of A.P., Hyderabad vide Letter No. 426/MMP-KNL/2019 dated 13.02.2017 . The PP also submitted a letter No 426/MMP-KNL/2019 dated 15.02.2019 wherein it has mentioned that *"The contents of the Modifications to the Approved Modified Mining Plan and Approved Mining Plan are identical except the Revision of Reserves due to rectification of numerical calculations and provision of safety buffer zones. The document has been prepared based on the guidelines issued as per G.O.Ms.No.56 and Form-T. The Financial Assurance has been revised based on MCDR 2017"* [P.1293/c]. The PP previously submitted an undertaking vide letter dated 30.06.2018 that agricultural field will be excluded at the time of execution of mining lease and mining plan will be revised for the reduced area.

Committee previously observed that in initial mining plan submitted by PP, at conceptual stage, mining lease area of 53.8110 Ha will be under excavation, 0.1468 ha will be for top soil storage, 7.9450 ha will be for overburden dumps, 6.6340 Ha will be under 7.5 safety barrier, 0.5020 will under mineral storage, 0.0010 Ha under infrastructure, 0.3350 Ha under roads, 0.50 Ha for environmental protective measure, 0.0010 Ha under monsoon water flow channel, 2.0 Ha under plantation and 1.2372 ha un-used area. The Committee observed that current mining plan is only for five years and for a very limited period and thus did not bring out the details at conceptual stage. Further, PP during the meeting mentioned that the active mining area is now reduced to 25.9492 Ha and the remaining area 47.1638 ha will not be excavated. The Committee observed that PP should submit the modified mining plan with all the restrictions as proposed by EAC and Forest Department, clearly showing the land use pattern at conceptual stage. The total mineable reserves and blocked reserves needs to be mentioned along with life of mine. With reduction in active area of mining, PP need to clearly bring out the land use area viz. area for infrastructure and waste/top soil dumping, and other details like waste to be generated during the entire life of mine and where it will be dumped/backfilled.

Committee asked that the PP should submit the modified mining plan with all the restrictions as proposed by EAC and Forest Department, clearly showing the land use pattern at conceptual stage, progressive mine closure and reclamation activities to be carried out for safe and environmentally friendly closure of the mining operations. The total excavation (mineral, waste, top soil) to be excavated needs to be brought out clearly in production and development plan. The mineable reserves, blocked reserves needs to be mentioned along with life of mine. PP should add an annexure showing the year wise production and development plan till the end of life of mine. The location of mineral stacking, dumping sites, plantation and other infrastructures needs to be brought out clearly. The PP needs to bring out the waste to be generated during the entire life of mine and where it will be dumped/backfilled.

PP in its reply dated 7.01.2020 submitted that the Approved Modified Mining Plan prepared as per the restrictions advised by the Expert Appraisal Committee of MOEF&CC & Forest Department, Land use pattern at Conceptual stage, mine closure, Dump site, Plantation & Infrastructure along with Annexures showing the year wise production and Development plan till the end of life of mine are documented. We have incorporated all the modifications in the Modified Mining Plan duly considering the comments of EAC & Forest department. The Deputy Director, Mines and Geology, Kurnool district has approved the aforementioned Modified Mining plan vide letter No. 4557/MMP-KNL/2019 dated 21/12/2019. PP also submitted the copy of approved Modified Mining plan. PP also informed the Committee that Govt. of Andhra Pradesh is in process of issuing a G.O. for the preparation of mining plan which is in line with suggestion made by of EAC.

Observation of EAC: *Committee observed that as per approved modified mining plan the area under excavation will be 21.90 Ha, overburden dumps 2.751 ha, 7.5-meter safety barrier 2.887 Ha, Infrastructures 0.085 Ha, Roads 0.607 Ha, de-silting tank 0.898 Ha, surface water spread area 3.263 ha, plantation (7.5-meter safety barrier road side 2.886 ha, forest buffer zone 6.935 Ha, dump top 1.553 Ha and near water spread area 3.155 ha, in no mining zone 2.827 ha), unutilized area will be 23.36 Ha. PP submitted that total geological reserves is 1,88,81,832 Tons, blocked reserves is 62,98,752 Tons and mineable reserves will be 1,25,83,080 Tons. The life of mine at proposed rate of production will be approximately 32 years. The Committee observed that total excavation as per this mining plan is 400337 (ROM) Tons (360302 dolomite clean ore & 40034 mineral reject).*

7. The proponent submitted that the mine will be operated by the open cast mechanized method of mining, which includes drilling, blasting, loading and transportation by deploying mining machinery.

8. The PP submitted that the water table in the locality is at a depth of 12 to 15 meters below the general ground level. The lowest ground level is 415 m MSL recorded at western side of AML area. The ground water table is expected to be at 400m MSL. The ultimate workings will reach upto 415m MSL. The water table is below 15m ultimate working depth i.e., 400m MSL, therefore, level mining operations will not intersect the water table. The water requirement is estimated to be about 10m³/day - about 2m³/day for domestic purpose, 6 m³/day, for dust suppression and 2 m³/day for greenbelt development. The PP submitted that no bore well is proposed within the mining lease area.

Observation of EAC: *Committee previously asked that PP needs to provide the water table in BGL. In addition to this PP needs to provide the details from where water will be sourced for this project.*

PP in its reply dated 7.01.2020 submitted that the proposed ML area is trending EW sloping due west and east. Rain water constitutes the drainage system of the area. Normal course of drainage is a sheet wash over lower reaches and flows through the first order streams located on South east and south west of the proposed ML Area. Groundwater is observed to be ranging in depth from 25-30 m bgl as in the lower reaches of plateau i.e. 450 m MSL reference level. The data is obtained from the publication of Deputy Director of Groundwater Department, Kurnool District, September '2019 over web portal and a copy of the Ground water scenario in Kurnool district (based on Piezometers data September, 2019) is also submitted by PP. PP submitted that the water required for the mining operations will be sourced from private water tankers suppliers during first year of mine operation and from 2nd year of mining operations, the water will be sourced from working pit and also from the proposed water spread area as depicted on Environmental Management Plan.

9. PP proposes to develop 6.634 Ha under greenbelt which includes 7.5m width barrier zone [4.634 Ha out of which 2.0 Ha during 1st 5 years and rest from 2nd 5 years up to conceptual period] and road side plantations [2.0 Ha out of which 0.5 Ha during 1st 5 years and rest from 2nd 5 year up to conceptual period]. The PP Proposes to plant total 16585 saplings [6250 saplings during 1st 5 years and rest from 2nd 5 years up to conceptual period]. The PP proposes to plant Neem, Siris, Sisham,

Amaltas, Karanj, JungirJalebi, Eucayptus, Kanju, and Sharifa. In addition, Acacia mangium, DelonixRegia, Garugapinnata, Leuceanaleucocephala, Syzygiumcuntinil, Feronia sp., Phylanthus sp., Madhuca .sp.,Magnifera sp., etc. The PP earmarked Rs. 2.3 Lakh (capital Cost) and 1.5 Lakh (Recurring Cost) for development of Green Belt .The PP vide its letter dated 20.07.2018 revised the budget for plantation to Rs 2.5 Lakh (capital) and 0.5 Lakh (recurring).

Observation of EAC: *The Committee previously observed that in the EIA Report the recurring expenditure for plantation is only for 10 years but the life of mine is more than 10 years. Further, as the active mining area is now reduced the area under plantation will increase. Thus, PP needs to submit the revised plantation plan based on the life of mine and provide the details of species to be planted, density of plantation, time line for plantation and year wise capital and recurring budget for the same.*

PP in its reply dated 7.01.2020 submitted that the total Mining area is 73.113 Ha. As per the advice of the Hon'ble Expert Appraisal Committee, the Greenbelt is proposed to be developed over an area of 24.893 Ha. PP submitted the plantation plan **a) Afforestation / Green Belt 7.5 m Buffer zone** [during 1st five year total 8,525 saplings will be planted on 3.410 Ha, First Scheme Period total 2985 saplings will be planted on 1.194 Ha, Second Scheme Period total 2433 saplings will be planted on 0.973 Ha, Third Scheme Period (20.0 Years end of ML after grant) total 1800 saplings will be planted on 0.720 Ha, **b) Other Plantations (Safety Zone, Along the Road, approach road over the dump area)** [during 1st five year total 5083 saplings will be planted on 2.033 Ha, First Scheme Period total 5000 saplings will be planted on 2.0 Ha, Second Scheme Period total 5000 saplings will be planted on 2.0 Ha, Third Scheme Period (20.0 Years end of ML after grant) total 7338 saplings will be planted on 2.935 Ha,End of life of Mine at 32.0 Years total 24070 saplings will be planted on 9.628 Ha. PP submitted that total 62234 saplings will be on 24.893 Ha. PP submitted that the total capital expenditure will be Rs 16.06 Lakh and total recurring expenditure over 32 years will be Rs 96.96 Lakh.

The Committee is of the view that PP should complete the plantation and green belt development activities in 1st 5 years, so that by the time mining will be over the plantation become self-sustaining.

PP vide its letter dated 26.02.2020 submitted the revised plantation plan wherein is has proposed to plant 1st Year [10880 saplings on 4.352 Ha area with density of plantation 2500 saplings/Ha, budget Rs 13.05 Lakh], 2nd Year [10880 saplings on

4.352 Ha area with density of plantation 2500 saplings/Ha, budget Rs 13.05 Lakh], 3rd year [10880 saplings on 4.352 Ha area with density of plantation 2500 saplings/Ha, budget Rs 13.05 Lakh], 4th year [14495 saplings on 5.798 Ha area with density of plantation 2500 saplings/Ha, budget Rs 17.394 Lakh] and 5th Year [14495 saplings on 5.798 Ha area with density of plantation 2500 saplings/Ha, budget Rs 17.394 Lakh]. The total area covered under green belt development in 5 years will be 24.652 Ha with 61630 saplings and total recurring budget of Rs 73.956 Lakh.

The Committee is of the view that PP should plant at least 75000 saplings within 5 years and after the lapse of 5 years PP should maintain the plantation density by gap filling and try to cover at least 24.893 Ha of area. The Committee is also of the view that species such as eucalyptus, acacia auriculiformis should not be planted. Drip irrigation to be done. The total area planted should be increased by planting trees in area left for infrastructure. The Committee observed that in the EMP budget PP has proposed ₹ 30.81 Lakh (Capital) & ₹ 3.5 Lakh (recurring) for greenbelt development in 24.652 Ha area @ 4000 saplings/Ha. Committee observed that there is mismatch in figures and is of the view that budget earmarked for plantation & green belt development (@ 2500 sapling/ha) should be at least ₹ 30.81 Lakh (Capital) & Rs 96.96 Lakh (recurring) (₹ 73.956 Lakh for five years and ₹ 23.004 Lakh for remaining period). The selection of the species should be in consultation with local forest department or PP may engage suitable agency having expertise in this field.

10. The proponent submitted that the Mining Lease is not part of Madhavaram Reserved Forest. The ML area was surveyed and a detailed surveyed map authenticated by DDM&G Kurnool was provided. As per the detailed survey carried out there is no forest land involved in the ML area. However, variation in the earlier ML sketch and present joint survey ML sketch was observed is true north orientation. The proponent submitted that they have approached Govt of Andhra Pradesh, Forest Department for inspection of the site. Forest Range officer, Dhone along with his staff and SBWL has inspected the proposed ML area. The Project Proponent has obtained the NOC from the forest department and Forest Department vide LR No 2922/2017/I-16 dated 13.11.2017, wherein inter alia it has mentioned that i) the mining lease is falling at a distance of 50 meters from compartment no 256, nearest Reserve Forest Madhavaram Forest, ii) There is no forest land inside the mining lease area, iii) There are no endangered species of flora existing in the area as well as buffer zone and it has neither ecological nor economic importance and most of the area consists of barren hills scarcely covered with normal species of shrubs & bushes.

The study area does not inhabit any thick vegetal cover there is usually thin grass which may appear during short rainy season.

11. The Committee noted that proponent submitted the Lr. No. 1182/R4- 2/2008 dated 17.08.2017 issued by Director of Mines & Geology, Andhra Pradesh wherein, the Deputy Director Mines & Geology was directed to depute the supervisor for the surveying the mining lease area.

12. PP submitted the mining lease plan along with the geo-coordinates duly authenticated by Asst. Director of Mines & Geology, Kurnool. PP submitted that based on the revised ML boundaries authenticated by Govt of Andhra Pradesh, Department of Mines and Geology and as per NOC and conditions issued by Govt of Andhra Pradesh, Forest Department, the mining plan was modified and approval was obtained on 02-11-2017. The Project Proponent submits that there are no changes in the survey numbers, jurisdiction, and mining Lease area and production capacity.

13. The PP submitted the certificate issued by Forest Department, Govt. of Andhra Pradesh vide Lr No.2922/2017/H6 dated 23.01.2018 wherein the list of schedule-1 species is provided. It is observed that there is no schedule-1 species present in the study area and mining lease.

14. The proponent submitted letter No.4067/M4/2017 dated 26.09.2017 & No.8227/M4/2006 dated 08.06.2018 issued by Department of Mines & Geology thereby submitting a report on Dolomite occurrence. PP submitted a copy of DSR as required as per S.O 141(E) dated 15.01.2016 and also informed that it is available on the website of the State Govt. of Andhra Pradesh at <http://www.kurnool.ap.gov.in/newsTitles.apo?mode=getNewsDetails&id=871>.

15. The PP has submitted the baseline data which includes i) Socio-economic study ,ii) Ambient air quality study comprising gaseous, particulate matter at 6 different locations, iv) Water quality analysis in 10 different locations (Bore well samples), v) Noise levels monitoring in 6 different locations, vi) Soil quality analysis in 5 locations, vii) Flora & Fauna status, viii) Land use pattern study and ix) Hydrological study have been carried out during summer Season (March 2016 – May 2016). The PP submitted that ambient air quality was monitored through network of 6 monitoring stations and the existing Ambient Air Quality levels in the monitored locations for PM₁₀, PM_{2.5}, SO₂ and NO₂, are within the prescribed NAAQ limits. The Noise levels were monitored through network of 6 monitoring stations and the

results are well within the limit. The water quality of the collected 10 ground water samples was found to be within the prescribed permissible limits of IS: 10500:2012 Norms for Drinking. The PP in submission made on 19.02.2018 submitted that the post project Concentrations of PM₁₀, PM_{2.5}, SO₂, NO_x& CO (GLC) (base line + incremental) in the AAQ monitored locations due to mining after adopting necessary control measures will be well within the prescribed AAQS limits. The PP submitted the NABET Accreditation Certificate of the consultant for the period 21.02.2014 to 14.11.2016, 16.11.2016 to Sep 2017, 18.09.2017 to 22.06.2018, and 22.06.2018 to 12.11.2019. PP also submitted the accreditation certificate of laboratory for the period 14.11.2014 to 13.11.2016 & 14.11.2016 to 13.11.2018, where sample were analyzed.

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

17. The public hearing for the project was conducted by Andhra Pradesh State Pollution Control Board (APSPCB) on 6th January 2017, under the Chairmanship of Shri C. HariKiran, Additional District Magistrate, Kurnool, at 11:00 AM at Grampanchayat office, Kanappakunta, Dhone Mandal, Kurnool District, Andhra Pradesh as per the Environmental Impact Assessment Notification dated 14th September, 2006. The advertisement for public hearing was published in '*Sakshi*' (5.12.2016) and '*Hans India*' (05.12.2016). The Committee deliberated on the issues raised during the public hearing and the major issues raised by the local people were related to damage to bore wells, crop damage, adjacent agricultural field belongs to SC Community and has 10 bore wells developed under Indira Jal Prabha Water Scheme & 10 by S.C. Corporation, depletion of ground water table due to blasting, CSR budget for rain water harvesting program, EIA should have study for health status, ground water, and crop production, 33% area should be under green belt, planting of medicinal & fruit bearing plants as green belt, construction of rain water harvesting structures, to implement the EMP mentioned in EIA, employment, compensation to villagers for damage, damage to road & houses near the mining lease, control blasting, top soil utilization, overloading of tippers, use of CSR fund for laying of roads and drinking water facility, skill development program. The Commitment made by PP during the PH includes control blasting, water spraying, transportation by covered trucks, baseline data of crop yield will be taken into consideration before starting mining operations, crop compensation, no agricultural will be purchased, initial and periodical medical examination of workers, rainwater storage in excavated pits to recharge ground water, green belt development, implementation of pollution control measures, mining within the lease area,

employment to 21 persons, strengthening of village road, over loading of truck will be avoided etc. PP also committed to spent Rs 11.0 Lakh for dust control measures, Rs 15.8 Lakh for Environmental Management Plan, Rs 17.5 Lakh for socio-economic welfare activities under CSR, and Rs 1.5 Lakh for skill development. The Committee observed that PP vide its letter dated 20.07.2018 revised the amount proposed under EMP from 26.8 Lakh to 15.8 Lakh (Capital) & 16.0 Lakh (recurring), revised the budget proposed under CER from 19.0 Lakh to 28.7 Lakh. The PP submitted that budget earmarked for plantation under EMP is 2.5 Lakh (Capital) and Rs 0.5 Lakh (Recurring).

Observation of EAC: *The Committee previously observed that in the Minutes of Public Hearing it has mentioned that land belongs to depressed people and this fact was ignored while granting mining lease. PP has submitted that the entire mining lease is government land and submitted a letter No D.Dis/51/2007/ dated 15.12.2007 issued by Thasildar, Dhona wherein the survey number in which lease is falling is mentioned as AW (Govt land). However, Committee observed that in the appraisal happened so far, the EAC has already restricted the mining on agricultural land. The PP has already submitted an undertaking on 30.06.2018 in this regard wherein it has mentioned that mining will not be carried out in agricultural field. Agricultural fields will be excluded from the mining lease at the time of lease execution and mining plan will be revised for the reduced area.*

18. PP initially proposed a budget of Rs 17.5 Lakh for socio-economic welfare activities under CSR, and Rs 1.5 Lakh for skill development. But later on vide its LR SBW/MoEF&CC/2018 dated 20.07.2018 submitted that the total budget for **Corporate Environment Responsibility (CER)** shall be ₹ 28.7 Lakhs, which includes a) ₹ 1.20 Lakhs for construction of rainwater harvesting structures at shallow areas of village Kannnappakunta (4pit) and Kamalapuram (2 pits), b) ₹ 2.50 Lakhs for construction of bore well to the nearby village (Kannnappakunta near to agriculture fields), c) ₹ 14.00 Lakhs for strengthening of road (connecting Kannnappakunta and Kamalapuram-3.5 km), d) ₹ 2.00 Lakhs for repairing & deepening of the non-working bore wells , e) ₹ 3.00 Lakhs for distillation of village ponds, providing bus shelter, f) ₹ 5.0 Lakhs for provision of computer to the school and g) ₹ 1.00 Lakhs for supporting sanitary needs for girls students (napkins).

Observation of EAC: *The Committee is of the view that hand pump proposed under CER should be put up within 2 years if it is substitution.*

PP vide letter dated 26.02.2020 submitted that total budget for **Corporate Environment Responsibility (CER)** shall be ₹ 28.7 Lakhs, which includes a) ₹ 1.20 Lakhs for construction of rainwater harvesting structures at shallow areas of village Kannappakunta (4pit) and Kamalapuram (2 pits) [time line 1st year], b) ₹ 4.5 Lakh for repairing & deepening of the non-working bore wells and construction of bore well to the nearby village as per their requirement (budget ₹ 2.00 Lakhs; time line 1st year & ₹ 2.50 Lakhs time line 2nd year), c) ₹ 15.00 Lakh for strengthening of road (connecting Kannappakunta and Kamalapuram-3.5 km) [timeline ₹ 3.00 Lakhs/annum 1st to 4th year and ₹ 2.00 Lakhs during 5th year], d) ₹ 3.00 Lakhs for distillation of village ponds, providing bus shelter [budget ₹ 1.00 Lakhs/annum; time line 1st-3rd year], e) ₹ 5.0 Lakh for provision of computer to the school [Budget ₹ 1.0 Lakh/annum; time line 1st to 5th year] and g) ₹ 1.00 Lakhs for supporting sanitary needs for girls students (napkins) [budget ₹ 0.2 Lakh/annum, timeline 1st to 5th year].

19. The PP has submitted that mine lease area consists of Government Waste Land. There is no habitation or private land in the mine area. Hence, there is no rehabilitation and resettlement in this project.

20. The Project Proponent initially proposed a budget of Rs 15.8 Lakh for **Environmental Management Plan (EMP)** but later on vide its LR SBW/MoEF&CC/2018 dated 20.07.2018 submitted that the total budget for implementation of **Environmental Management Plan (EMP)** shall be ₹ 15.8 Lakhs (capital) and ₹ 16.0 Lakh (recurring) which includes a) ₹ 11.0 Lakhs (Capital) & ₹ 4.0 Lakh (recurring) for deploying of water tanker for dust suppression- 5 kl capacity, b) ₹ 1.05 Lakh (Capital) & ₹ 0.85 Lakh (recurring) pre-medical examination of 21 persons, ₹ 0.63 Lakh (Capital) & ₹ 0.65 Lakh (recurring) for providing personnel protection equipment to 21 persons), ₹ 2.5 Lakh (Capital) & ₹ 0.5 Lakh (recurring) for greenbelt development in 6.63 Ha area @1500 saplings/Ha, ₹ 0.50 Lakh for construction of septic tank followed by soak pit (3 kl capacity), and ₹ 0.12 Lakh for rainwater harvesting pit (storm trenches and pit within ML area), and environmental monitoring ₹ 10.0 Lakh (recurring)

Observation of EAC: *The Committee previously observed the total recurring expenditure and number of years needs to be submitted. The Committee was of the view that PP needs to submit details on resource deployment in environment management cell for implementation of EMP and its associated budgetary provision and recurring expenditure.*

PP in its reply dated 7.01.2020 submitted that the environment management cell consists of mine owner, manager environment (1 nos), assistant manager environment (1 nos) and supervisor (2 nos). The budget proposed towards salary of the above members will be Rs 15.28 Lakh/annum with 7-10% increment in every 2 years.

Total budget for implementation of **Environmental Management Plan (EMP)** shall be ₹ 44.11 Lakhs (capital) and ₹ 18.50 Lakh (recurring) which includes a) ₹ 11.0 Lakhs (Capital) & ₹ 4.0 Lakh (recurring) for deploying of water tanker for dust suppression- 5 kl capacity, b) ₹ 1.05 Lakh (Capital) & ₹ 0.85 Lakh (recurring) pre-medical examination of 21 persons, ₹ 0.63 Lakh (Capital) & ₹ 0.65 Lakh (recurring) for providing personnel protection equipment to 21 persons), ₹ 30.81 Lakh (Capital) & ₹ 3.0 Lakh (recurring) for greenbelt development in 24.652 Ha area @ 4000 saplings/Ha, ₹ 0.50 Lakh for construction of septic tank followed by soak pit (3 kl capacity), and ₹ 0.12 Lakh for rainwater harvesting pit (storm trenches and pit within ML area), and environmental monitoring ₹ 10.0 Lakh/annum (recurring).

PP also submitted that frequency of monitoring will be i) for PM₁₀, PM_{2.5}, NOx and CO (at 5 locations, once in a month, 60 samples/annum), ii) Ground water (at 3 locations, once in six months, 6 samples/annum), Noise Level (4 locations, once in a month, 48 samples/annum), and vibration study (1 location, 1 sample/year). The budget earmarked for the same is Rs 6.28 lakh/annum.

Observation of EAC: Committee observed that i) budget proposed in EMP for environmental monitoring is Rs 10.0 Lakh/annum but PP has proposed above an amount of Rs 6.28 Lakh/annum. Further, in the total project cost the cost of EMP is mentioned as Rs 50 Lakh but in the EMP plan the capital cost is mentioned as Rs 44.11 Lakh. Thus, the remaining capital cost of 5.89 Lakh shall be used for purchasing the equipment for blast vibration monitoring and the balance recurring amount of Rs 3.72 Lakh shall be used for blast vibration monitoring as per DGMS norms & calibration of equipment. In addition to this PP shall keep a record of each blasting viz. location, number of holes, delay assigned of each hole, explosive quantity of each hole, blasting pattern etc. and ii) Committee observed that EMP budget comes out to be is Rs 50 Lakh (Capital) & Rs 18.50 lakh (recurring) but as there is change in plantation schedule the budget earmarked under EMP should be Rs 19.9 Lakh (Capital) & Rs 15.5 Lakh (recurring) for other activities proposed under EMP (including blast vibration monitoring) and for plantation & green belt development (@ 2500 sapling/ha) should

be at least ₹ 30.81 Lakh (Capital) & Rs 96.96 Lakh (recurring) (₹ 73.956 Lakh for five years and ₹ 23.004 Lakh for remaining period).

21 The Project Proponent submitted that that budget (capital cost) earmarked for **occupation health** shall be ₹ 1.05 Lakh pre-medical examination of 21 persons, 0.63 Lakh providing personnel protection equipment to 21 persons), and recurring cost for occupation health shall be ₹0.85 Lakh premedical examination, 0.65 Lakh for wear and tear replacement of personnel protection equipment of 21 persons. The capital cost shall be spent before commencement of mining operation and recurring cost annually.

22. The Project Proponent submitted that the total project cost shall be ₹ 60 Lakh and shall give direct employment to 21 persons.

Observation of EAC: *The Committee previously observed that there is change in Project cost and PP has enhanced the budget for EMP, CER etc., consequent to discussion during appraisal by EAC. Accordingly, PP needs to submit the revised project cost considering all the budgetary provisions and commitment made during the appraisal process and public hearing.*

PP in its reply dated 7.01.2020 submitted that total project cost will be 2.36 Crore and the CER budget @ 2% of project cost comes out to be Rs 4.72 Lakh but PP has proposed a budget of Rs 28.7 Lakh under CER.

23. The PP vide its letter dated 27.06.2019 informed the Ministry that PP has changed the consultant from M/s B.S. Envitech Consultants, Hyderabad to M/s Ind Tech House Consult, New Delhi for this project. PP also submitted a No Objection Certificate issued by M/s B.S. Envitech Consultants, Hyderabad vide Lr No BSET/BW/2019 dated 08.08.2018 wherein it has mentioned that “we have carried out EIA Study, conduct public hearing and presented the project to EAC (Non-Coal Mining) and also presented the ADS points raised by MoEF&CC from time to time. As desired by the Project Proponent, we have no objection to engage services of any other consultant on the above project”. The Project Proponent and previous consultant also given an undertaking that information provided in EIA Report and additional details (ADS-1,2&3) submitted to the Ministry are factually correct. The new consultant M/s Ind Tech House Consult, New Delhi submitted an undertaking that they have validated the data submitted for the environmental clearance by M/s B.S. Envi-Tech (P) Ltd. and the information provided to the MoEF&CC is factually correct.

Observation of EAC: *The committee previously observed that PP should submit an undertaking through affidavit for compliance of all statutory requirements and Common Cause Judgment dated 2.08.2017.*

PP submitted an undertaking for compliance of statutory requirement and common cause judgment dated 2.08.2017. PP also undertakes that PP shall abide by all the commitment and recommendation made in EIA/EMP Report, commitment made during public hearing and also commitment made before EAC. PP also submitted that concealing factual data or submission of false/fabricated data may result in revocation of environmental clearance and attract action under EPA, 1986. PP also submitted an affidavit wherein consented to voluntarily surrender the proposed mining lease area for dolomite at any stage by State, Central Government or any Governing bodies under law and take responsibility of insolvency & financial implication. PP also submitted an affidavit for compliance of EC Conditions.

24. Based on the discussion held and documents submitted the Committee **recommended** the proposal for grant of Environmental Clearance for production of 4.0 lakh Tonnes of Dolomite (ROM) from Malkapuram Dolomite Mine (ML area 73.113 Ha) located at Kochervu and Malkapuram Villages, Dhone Mandal, Kurnool District, Andhra Pradesh. In addition to Standard EC Conditions as per Ministry's O.M. No. 22-34/2018-IA.III dated 08.01.2019 & 16.01.2020, the Committee also prescribed the following specific conditions for this project:

1) Project Proponent should plant at least 75000 saplings within 5 years and after the lapse of 5 years maintain the plantation density to atleast 2500 sapling/ha by gap filling and try to cover at least 24.893 Ha of area. Species such as eucalyptus, acacia auriculiformis should not be planted. Drip irrigation to be done. Year wise plantation plan is 1st Year [10880 saplings on 4.352 Ha area with density of plantation 2500 saplings/Ha, budget Rs 13.05 Lakh], 2nd Year [10880 saplings on 4.352 Ha area with density of plantation 2500 saplings/Ha, budget Rs 13.05 Lakh], 3rd year [10880 saplings on 4.352 Ha area with density of plantation 2500 saplings/Ha, budget Rs 13.05 Lakh], 4th year [14495 saplings on 5.798 Ha area with density of plantation 2500 saplings/Ha, budget Rs 17.394 Lakh] and 5th Year [14495 saplings on 5.798 Ha area with density of plantation 2500 saplings/Ha, budget Rs 17.394 Lakh]. In addition to this 13370 saplings should be planted for gap-filling and other areas. The total area covered under green belt development in 5 years shall be 24.652 Ha. The total area planted should be increased by planting trees in area left for

infrastructure. Budget earmarked for plantation & green belt development (@ 2500 sapling/ha) should be at least ₹ 30.81 Lakh (Capital) & Rs 96.96 Lakh (recurring) (₹ 73.956 Lakh for five years and ₹ 23.004 Lakh for remaining period). The selection of the species should be in consultation with local forest department or PP may engage suitable agency having expertise in this field.

2) Budget earmarked for **Corporate Environment Responsibility (CER)** shall be ₹ 28.7 Lakhs, which includes a) ₹ 1.20 Lakhs for construction of rainwater harvesting structures at shallow areas of village Kannappakunta (4pit) and Kamalapuram (2 pits) [time line 1st year], b) ₹ 4.5 Lakh for repairing & deepening of the non-working bore wells and construction of bore well to the nearby village as per their requirement (budget ₹ 2.00 Lakhs; time line 1st year & ₹ 2.50 Lakhs time line 2nd year), c) ₹ 15.00 Lakh for strengthening of road (connecting Kannappakunta and Kamalapuram-3.5 km) [timeline ₹ 3.00 Lakhs/annum 1st to 4th year and ₹ 2.00 Lakhs during 5th year], d) ₹ 3.00 Lakhs for distillation of village ponds, providing bus shelter [budget ₹ 1.00 Lakhs/annum; time line 1st-3rd year], e) ₹ 5.0 Lakh for provision of computer to the school [Budget ₹ 1.0 Lakh/annum; time line 1st to 5th year] and g) ₹ 1.00 Lakhs for supporting sanitary needs for girls students (napkins) [budget ₹ 0.2 Lakh/annum, timeline 1st to 5th year]. 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.

3) Total budget for implementation of **Environmental Management Plan (EMP)** shall be ₹ 19.9 Lakh (capital) and ₹ 15.50 Lakh (recurring) which includes a) ₹ 11.0 Lakhs (Capital) & ₹ 4.0 Lakh (recurring) for deploying of water tanker for dust suppression- 5 kl capacity, b) ₹ 1.05 Lakh (Capital) & ₹ 0.85 Lakh (recurring) pre-medical examination of 21 persons, ₹ 0.63 Lakh (Capital) & ₹ 0.65 Lakh (recurring) for providing personnel protection equipment to 21 persons), ₹ 0.50 Lakh for construction of septic tank followed by soak pit (3 kl capacity), and ₹ 0.12 Lakh for rainwater harvesting pit (storm trenches and pit within ML area), environmental monitoring ₹ 6.28 Lakh/annum (recurring) and ₹ 5.89 (capital) and ₹ 3.72 (recurring) for blast vibration monitoring as per DGMS norms & calibration of equipment. In addition to this budget for plantation & green belt development (@ 2500 sapling/ha) should be at least ₹ 30.81 Lakh (Capital) & Rs 96.96 Lakh (recurring) (₹ 73.956 Lakh for five years and ₹ 23.004 Lakh for remaining period). The location and frequency of monitoring shall be i) for PM₁₀, PM_{2.5}, NO_x and CO (at 5 locations, once in a month,

60 samples/annum), ii) Ground water (at 3 locations, once in six months, 6 samples/annum), Noise Level (4 locations, once in a month, 48 samples/annum), and vibration study (1 location, 1 sample/year). Amount proposed under EMP shall 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.

4) PP shall keep a record of each blasting viz. location, number of holes, delay assigned of each hole, explosive quantity of each hole, blasting pattern etc.

5) Capital cost earmarked for **occupation health** shall be ₹ 1.05 Lakh pre-medical examination of 21 persons, 0.63 Lakh providing personnel protection equipment to 21 persons), and recurring cost for occupation health shall be ₹ 0.85 Lakh premedical examination, 0.65 Lakh for wear and tear replacement of personnel protection equipment of 21 persons. The capital cost shall be spent before commencement of mining operation and recurring cost annually. 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.

6) PP shall ensure that water required for the mining operations will be sourced from private water tankers suppliers drawing water from legal source during first year of mine operation and from 2nd year of mining operations, the water will be sourced from working pit and also from the proposed water spread area as depicted on Environmental Management Plan.

(2.2) Proposal for change in excavation & dispatch patter of Durgaiburu Iron Ore Mining Lease (1443.756 Ha), Beneficiation and Pelletisation Plant Project of M/s Steel Authority of India Limited (SAIL), located at Village Gua&Ghatkuri Reserve Forest, Tehsil-Noamundi, District West Singhbhum, Jharkhand-[Proposal No: IA/JH/MIN/139621/2020, File No. J-11015/453/2008-IA. II (M), -

Consultant: M/s MECON LTD] - Consideration of EC under Para 7(ii) of EIA 2006.

The proposal of M/s. Steel Authority of India Limited is for grant of EC **under para 7(ii) of EIA Notification 2006 (as amended)** for **change in excavation & dispatch pattern increasing the excavation & dispatch of Iron ore fines from existing fines dump from 3.1 MTPA to 5 MTPA keeping the total production from the mines within the approved EC capacity of 12.5 MTPA.** The Durgaburu Iron Ore Mining Lease mining lease(ML area 1443.756 ha) is located in Tehsil Noamundi, District West Singhbhum, is a part of Survey of India Topo sheet bearing no.73F/8(F45H8) and is bounded by latitudes 22°11'17.511" N -22°14'17.304" N and longitudes 85°19.58.525" E - 85°23'28.973" E. The entire mining lease area is located in Ghatkuri Reserve Forest.

2. PP applied online vide proposal No. **IA/JH/MIN/139621/2020** dated 30.01.2020 under para 7(ii) of EIA Notification 2006 (as amended) and submitted Form-2, Modification in approved Review Mining Plan in Respect of Duargiburu Iron ore, letter of Intent(LOI) along with the Lease deed execution and Order of Ministry of Mines. The proposal is placed in EAC meeting held during 26-27 February, 2020.

3. PP submitted that Durguiburu Mining Lease was first granted on 22.02.1949 for a period of 30 years. 1st Renewal of Mining Lease (RML) was also granted for another 30 years period w.e.f 22.02.1979 to 21.02.2009. The Govt. of Jharkhand vide order dated 25.06.2019 extended the lease period from 22.02.2009 to 21.02.2029 under the provisions of Mineral (Mining by Government Company) Rules, 2015 and mining lease deed has been executed on 24.09.2019. PP submitted that the total lease area of 1443.756 ha, presently the mining and allied activities are confined over 274.691 ha for which Stage – II Forest Clearances have been obtained from MoEF&CC vide F.No. 8-251/1986 – FC (Pt) dated 22.08.2014. Further, Stage-I FC over an additional area of 361.295 ha for was granted by MoEF&CC vide F .No. 8 – 251/1986-FC dated 04.03.2014 and grant of Stage – II FC is under consideration by MoEF&CC. The entire mining lease area is located in Ghatkuri Reserve Forest and do not fall under the purview of Wildlife Protected Area.

4. PP submitted that earlier the Environmental Clearance granted vide letter no. J-11015/453/2008-IA. II (M) dated 25th March, 2013 for expansion in production to 12.5 Million Tonnes Per Annum (MTPA) iron ore comprising of 10 MTPA fresh ROM and 2.5 MTPA of fines from the existing Fines Dump and liquidate the entire fines dump in 13 years, setting up a new 12.5 MTPA iron ore Beneficiation Plant (for processing of 10 MTPA ROM & 2.5 MTPA fines from Fine Dump and Setting up a new 4 MTPA Pelletisation Plant to pelletise slimes generated at the new beneficiation plant. The initial proposal had received Environmental Clearance from Ministry of Environment and Forests (MoEF) (as MoEFCC was earlier called) vide their letter no. J-11015/453/2008-IA.II (M) dated 25th March, 2013 for the above stated expansion plan. Subsequently MoEFCC has amended the specific condition by vide letter No. J-11015/453/2008-IA.II (M) dated 02nd February, 2015 to utilize the entire dump in 9 years instead of 13–14 years.

5. Project Proponent submitted that Ministry of Mines, Govt. of India have noted that the large stocks of low grade material viz. low grade fines, slimes and sub-grade ore/fines extracted from the captive mines of M/s SAIL and which are not suitable for end-use of captive purposes has been accumulated over the years and which has occupied huge area within and/or outside lease areas and are liable to cause environmental hazards. The Ministry has also observed that M/s SAIL does not have enough beneficiation and palletisation capacity to consume these low grade fines/ore, slimes and sub-grade ore/fines. In view of the economic rationale for realisation of full value of such mineral extracted from the captive mines and providing flexibility for complete utilisation of all grades of minerals, the Ministry of Mines, Govt. of India vide order dated 16.09.2019 has directed the concerned State Governments to allow M/s SAIL to sell these low grade fines/slimes in open market. The Ministry has also directed the concerned State Governments to allow M/s SAIL to sell fresh iron ore upto 25% of total previous year production for two years to mitigate the risk of possible shortage of iron ore on account of afore said expiry of mining leases.

6. PP submitted that for faster liquidation of iron ore fines at the Fines Dump, SAIL has planned to excavate the fines from the Fine Dump to the tune of 5 MTPA for selling in open market keeping total production within the approved EC sanctioned capacity of 12.5 MTPA i.e. 7.5 MTPA ROM and 5 MTPA fines till installation of the envisaged beneficiation & pellet plants at Gua Ore Mines,

which will take about 4years after grant of Stage –II Forest clearance over 361.295 ha. Out of the proposed excavation of 5 MTPA fines, about 2.5 MTPA fines will be transported by dumpers/trucks to Gua Public Siding through SAIL's own internal road over 3.5 km for dispatch through rail and the remaining 2.5 MTPA will be dispatched by road through Private road (SAIL owned) covering a distance of 2.2 km and subsequently through Public Road up to Barajamda Railway Siding for dispatch through rail or directly by road by other agencies.

7. The Project Proponent reported that Review of Mining Plan for the period from 2019-20 (01.11.2019 to 31.03.2020) to 2023-24 has been approved by IBM vide letter No. RAN/WSB/Fe/MP-17/2019-20 dated 20.12.2019. Consent to Operate has been obtained from JSPCB, Ranchi vide letter no. JSPCB/HO/RNC/CTO-1005380/2016/1066 dated 26.12.2016 which is valid from 01.01.2017 to 31.12.20120. Certified Compliance report of Environmental Clearance has been obtained from the Regional Office, MoEF&CC, Ranchi vide letter no. 103-175/08/EPE/3784 dated 29.01.2020.

8. PP reported that the proposed change in scope of work does not have any significant adverse impacts on environment as revealed by the studies undertaken. Further, proposed additional pollution prevention and control measures under the current proposal will further improve environmental quality and land use of the area and also maintain & improve socio-economic aspects of the region. Project Proponent also submitted that in order to assess the likely impacts, if any, on the local road infrastructure & air quality of the area, due to the proposed changes in the scope of work, specific environmental studies viz., Traffic Density Study and Air Quality Impact Prediction Study have been carried out through our environmental consultant M/s MECON Ltd. and incorporated in the enclosed addendum to EIA/EMP Report. It has been noted that the existing roads have adequate spare capacity to handle the additional traffic load due to iron ore transportation by road. Further, the air quality impact predication also shows the quality of air is within the permissible limits. The proposed utilization of fines from the fines dumps will not only result in effective utilization of these low grade minerals, but also eliminates environmental hazards associated due to storage of fines. PP submitted that 200 persons will be deployed for additional fines handling. 50kW power shall be required for the fines handling area. 600 m³/day of water from the mine's existing allocation will be required for the fines handling area.

Observation of EAC: The Committee is of the view that a site visit may be conducted by EAC Members and officials of MoEF&CC for ground truthing of EC Compliance.

9. The Project Proponent has reported that subsequent to the judgment of Apex Court dated 02.08.2017 in the matter of Common Cause vs Union of India and Ors., the Government of Jharkhand vide letter dated 07.09.2017 issued a demand for payment of Rs. 612,37,00,454/-. Against this demand, SAIL had filed a Writ Petition bearing WP (C) No. 7016/2017 before Hon'ble High Court of Jharkhand at Ranchi. The matter was heard and Hon'ble High Court vide order dated 21.02.2018 referred the matter to Division bench of the Jharkhand High Court since it involves substantial questions of Law. The matter is sub-judice before Division bench of the Hon'ble High Court of Jharkhand.

10. Based on the discussion held and document submitted the Committee **deferred** the proposal for want of a) PP need to conduct the dump stabilisation studies, b) Transport scenario to be properly calculated and resubmitted, c) Traffic density and road carrying capacity to be calculated, d) Excavation plan to be properly delineated, d) Mass balance to be prepared and quantitative despatch scenario for lump, fines to be submitted, e) impact on pollution load (increase/decrease) due to proposed excavation & dispatch plan needs to be submitted. The Committee is of the view that proposal may only be consider after the submission of above information, and site visit by EAC Members & MoEF&CC officials.

(2.3) Proposal for change in excavation & dispatch pattern of Kiriburu-Meghahatuburu Iron Ore Mining project [ML Area 2897.499 Ha] of M/s Steel Authority of India Limited (SAIL), located at Villages Kiriburu, Meghahatuburu & Karampada Reserve Forest, Tehsil-Noamundi, District West Singhbhum, Jharkhand [File No. J-11015/272/2007-IA. II (M); Proposal No: IA/JH/MIN/139875/2020, Consultant: M/s MECON LTD]- Consultant: M/s MECON LTD].- Consideration of EC under Para 7(ii) of EIA 2006.

The proposal of M/s. Steel Authority of India Limited is for grant of EC under para 7(ii) of EIA Notification 2006 (as amended) for change in excavation & dispatch pattern by increasing excavation and dispatch of iron ore of tailings from tailing ponds of Kiriburu & Meghahatuburu Iron Ore Mine up to 2 MTPA (1MTPA each)

keeping total production within approved production capacity of 16 MTPA. Kiriburu & Meghahatuburu Iron Ore Mine (amalgamated lease area 2897.499 ha) is located in Noamundi Tehsil, West Singhbhum District of Jharkhand and Karampada Reserve Forest (R.F.). The amalgamated lease under Kiriburu– Meghahatuburu Iron Ore Mine forms part of Survey of India topo-sheet no: F45H8 and F45H4 and is bounded by latitudes 22°02'10.71490" N& 22°07'51.23635" N and longitudes 85°13'51.19803" E - 85°18'11.08104" E.

2. The PP applied online vide proposal No. **IA/JH/MIN/139875/2020** dated 31st January, 2020 under para 7(ii) of EIA Notification 2006 (as amended) and submitted Form-2, approved Review of Mining Plan, letter of Intent(LOI) along with the Lease deed execution and Order of Ministry of Mines. The proposal is placed in EAC meeting held during 26-27 February, 2020.

3. PP submitted that two of SAIL's captive iron ore mines are Kiriburu Iron Ore Mine and Meghahatuburu Iron Ore Mine which are located in Noamundi Tehsil, West Singhbhum District of Jharkhand and Karampada Reserve Forest (R.F.). Earlier there were 3 leases (three Leases); Lease-I, Lease – II and Lease III (having two operating Mines - Kiriburu & Meghahatuburu) which have been amalgamated into one lease with area 2897.499 ha vide letter no. Kha .Ni (Chai)-31/2005 / 1750/M/Ranchi dated 23.10.2019 of Director Mines & Geology , Jharkhand Govt. of 2897.499 ha. The two mines continue to operate separately for administrative purposes and have their own quarries, beneficiation plants, material despatch facilities and other infrastructure. Subsequent to promulgation of MMDR Amendment Act, 2015 and Mineral (Mining by Government Company) Rules, 2015, Department of Mines and Geology, Govt. of Jharkhand has extended the lease period of amalgamated lease of Kiriburu – Meghahatuburu Iron Ore Mines up to 27.03.2030 vide letter no ख-(चाई).नि.31/2005/1255/एम., राँचि dated 30.07.2019. Subsequently, lease deed of the amalgamated lease for the period up to 27.03.2030 has been executed on 25.10.2019. PP reported that the Stage-I FC over 247.5 ha for development of South and Central Blocks was granted by MoEFCC vide F. No. 8-537/1988-FC(pt.) dated 18.10.2010 and grant of Stage – II FC is under consideration by MoEFCC.

4. PP submitted that previously Environmental Clearance was obtained vide their letter no. J-11015/272/2007-IA.II(M) dated 23rd September, 2014 for proposed expansion included Increasing ROM iron ore production

capacity to 16 MTPA (8.5 MTPA from Meghahatuburu and 7.5 MTPA from Kiriburu), Expansion and Modernisation of the existing iron ore beneficiation plants capacities to 16 MTPA, Modernisation of existing material handling facilities commensurate with increased production and Slime Beneficiation Plants for iron ore recovery from tailings.

5. Project Proponent informed that Ministry of Mines, Govt. of India have noted in their Order F.No. 16/30/2019-M.VI dated 16th September, 2019 that vast stocks of slimes and sub-grade ore are lying at mine pit heads of captive mines of SAIL and are liable to cause environmental hazards. Accordingly, Ministry of Mines, Govt. of India have accorded permission for selling of these low grade mineral (tailings and sub-grade ore) in the open market such that mineral can be exhausted and environmental hazards can be mitigated. The disposal of such stockpiles would enhance the availability of iron ore for the purpose of beneficiation and pelletisation and subsequent use for iron & steel making. Further, Ministry of Mines, Govt. of India has also directed concerned State Governments to allow SAIL to sell fresh iron ore up to 25% of total previous year production to mitigate the risk of possible shortage of iron ore on account of expiry of mining leases pertaining to merchant mining on 31.03.2020.

6. PP submitted due the above reason it proposed that a) excavation of tailings at the rate of 1 MTPA from the tailing pond of Kiriburu and dispatch through internal road to SAIL's Kiriburu private siding over 3.3 km stretch of road within SAIL's ML area and thereafter by rail for selling in open market keeping the total production from Kiriburu Iron Ore Mine within permitted EC capacity of 7.5 MTPA, b) Excavation of tailings at the rate of 1 MTPA from the tailing pond of Meghahatuburu and dispatch through internal road to SAIL's Meghahatuburu private siding over 6.5 km stretch of road within SAIL's ML and thereafter by rail for selling in open market keeping the total production from the Meghahatuburu Iron Ore Mine within permitted EC capacity of 8.5MTPA. and c) Dispatch of excavated tailings by rail to external pellet conversion agencies for beneficiation & pelletization on conversion cost basis and consume the same in SAIL Steel Plants.

7. The Project Proponent reported that Indian Bureau of Mines, Ranchi has approved the Review of Mining Plan for the period from 2020-21 to 2024-25 vide letter no. RAN/WSB/Fe/MP-09/2019-20 dated 27.01.2020 covering the above proposed changes under amalgamated lease of Kiriburu & Meghahatuburu Iron Ore

Mines. Consent to Operate has been obtained from JSPCB, Ranchi vide letter no. JSPCB/HO/RNC/CTO-5913229/2019/2540 dated 24.12.2019 which is valid from 24.12.2019 to 31.12.2024. Certified Compliance report of Environmental Clearance has been obtained from the Regional Office, MoEF&CC, Ranchi vide letter no. 103/232/09/EPE/3698 dated 31.12.2019. Out of the total amalgamated lease of 2897.499 ha, presently the mining and allied activities are confined over 726.09 ha for which Stage – II Forest Clearances have been obtained from MoEFCC.

8. PP submitted that the proposed change in scope of work does not have any significant adverse impacts on environment as revealed by the studies undertaken. Further, proposed pollution prevention control measures under the current proposal will further improve environmental quality and land use of the area and also maintain & improve socio-economic aspects of the region.

9. Project Proponent submitted that in order to ascertain the likely impacts, if any, on the road infrastructure & air quality of the area, due to the proposed changes in the scope of work, specific environmental study viz., Air Quality Impact Prediction Study have been carried out through our environmental consultant M/s MECON Ltd. and incorporated in the enclosed addendum to EIA/EMP Report. It has been noted that the air quality impact prediction shows the resultant quality of air shall be within the permissible limits specified in the National Air Quality Standards. The proposed utilization of tailings from the tailing ponds of Kiriburu & Meghahatuburu will not only result in effective utilization of these low grade minerals/mineral rejects but will also eliminate environmental hazards associated with bulk storage of tailings.

Observation of EAC: The Committee is of the view that a site visit may be conducted by EAC Members and officials of MoEF&CC for ground truthing of EC Compliance.

10. Project Proponent has reported that Subsequent to the judgement of Apex Court dated 02.08.2017 in the matter of Common Cause vrs Union of India and Ors., the Government of Jharkhand issued demand of Rs. 308,36,46,118/- to Kiriburu Iron Ore Mine on 07.09.2017 and demand of Rs. 184,79,04,782/- to Meghahatuburu Iron Ore Mine on 07.09.2017 & 08.03.2018. Against this demand, SAIL had filed a Writ Petition bearing WP (C) No. 7016/2017 before Hon'ble High Court of Jharkhand at Ranchi. The matter was heard and Hon'ble High Court vide order dated 21.02.2018 referred the matter to Division Bench of the Jharkhand High Court since it involves

substantial question of law. The matter is sub-judice before Division bench of the Hon'ble High Court of Jharkhand.

11. Based on the discussion held and document submitted the Committee **deferred** the proposal for want of a) PP need to conduct the tailing pond stability studies, b) Transport scenario to be properly calculated and resubmitted, c) Traffic density and road carrying capacity to be calculated, d) Excavation plan to be properly delineated, e) Mass balance to be prepared and quantitative despatch scenario for lump, fines from in suite reserves and tailing pond needs to be submitted, f) impact on pollution load (increase/decrease) due to proposed excavation & despatch plan needs to be submitted. The Committee is of the view that proposal may only be consider after the submission of above information, and site visit by EAC Members & MoEF&CC officials.

(2.4) Proposal for change in excavation & dispatch pattern of Bolani Iron Ore Mine [ML Area 1321.45 ha] of M/s Steel Authority of India Limited, located at Village Bolani, Tehsil- Barbil, District Keonjhar, Odisha [File No. J-11015/418/2008-IA. II(M); Proposal No: IA/OR/MIN/139447/2020, Consultant: M/s MECON LTD]-EC Consideration under Para 7(ii) of EIA 2006.

The proposal of M/s. Steel Authority of India Limited is for grant of EC under para 7(ii) of EIA Notification 2006 (as amended) for change in excavation & dispatch pattern by increasing excavation and despatch of iron ore fines from existing Fines Dumps up to 3.0 MTPA (from present 0.5 MTPA) and Modification of Mining parameters including updating of reserves and waste generation keeping total production within approved EC capacity of 12 MTPA. Bolani Iron Ore Mine (1321.45 HA) is located at Villages Bolani & Balagoda and Karo Reserve Forest (R.F.) in Barbil Tehsil, Champua Sub-division, Keonjhar District of Odisha. The lease area forms part of Survey of India topo-sheet no: 73 F/8 (F45H/8) and is bounded by latitude 22⁰05'11.65848" N & 22⁰07'46.2869"N & longitudes 85⁰16'52.81330" E – 85⁰20'13.85260"E.

2. The PP applied online vide proposal No. **IA/OR/MIN/139447/2020** dated 31.01.2020 under para 7(ii) of EIA Notification 2006 (as amended) and submitted Form-2, approved Review of Mining Plan, letter of Intent(LOI) along with the Lease deed execution and Order of Ministry of Mines. The proposal is placed in EAC meeting held during 26-27 February, 2020.

3. PP submitted that Bolani Ore Mines comprises of two adjacent leases; Bolani 5.1 Sq. Mile Lease (area: 1321.45 ha) and Bolani 6.9 Sq. Mile Lease (area: area: 1786.74 ha). 5.1 Sq. Mile lease is the main iron ore mining lease. 6.9 Sq. Mile Lease is a manganese ore mining lease. The two leases are adjacent to each other and have common infrastructure such as Railway siding, loading plant, crushing & screening, conveyors, power-lines, magazine, township, office, guest house, hospital, roads, Tailing Dam etc. The lease comprises of 1312.86 ha Forest Land and 8.59 ha Non-Forest Land under the villages of Bolani and Balagoda. The 5.1 Sq. Mile ML was granted for 30 years with validity from 11.04.1960 to 10.04.1990. The lease has been renewed up to 09-04-2030 vide express order of Govt. of Odisha, Steel & Mines Department. Stage-II Forest clearance exists for the total forest land within the Mining Lease.

4. PP submitted that previously EC was obtained vide letter no. J-11015/418/2008-IA.II(M) dated 21st December, 2012 for increasing the production from the mine from 5.65 million tonnes per annum (MTPA) to 12.00 MTPA of Iron Ore (ROM), increasing the beneficiation plant's capacity to 12 MTPA and installing a new 4 MTPA pelletisation plant. .

5. Project Proponent informed that Ministry of Mines, Gov. of India have noted in their Order F.No. 16/30/2019-M.VI dated 16th September, 2019 that vast stocks of slimes and sub-grade ore are lying at mine pit heads of captive mines of SAIL and are liable to cause environmental hazards. Accordingly, Ministry of Mines, Govt. of India have accorded permission for selling of these low grade mineral (tailings and sub-grade ore) in the open market to maximise the availability of iron ore for the purpose of beneficiation and pelletisation and subsequent use for iron & steel making and to protect the environment such that mineral can be exhausted and environmental hazards can be mitigated. The disposal of such stockpiles would enhance the availability of iron ore for the purpose of beneficiation and pelletisation and subsequent use for iron & steel making. Further, Ministry of Mines, Govt. of India has also directed concerned State Governments to allow SAIL to sell fresh iron ore up to 25% of total previous year production to mitigate the risk of possible shortage of iron ore on account of expiry of mining leases pertaining to merchant mining on 31.03.2020.

6. The Project Proponent reported that the Scheme of Mining for the period 01.04.2015 to 31.03.2020 was approved by IBM, Bhubaneswar vide letter no. MS/FM/31-ORI/BHU/2014-15, dated 03.08.2015 and subsequent modification of Review of Mining Plan for the period 2018-2020 approved by IBM, Bhubaneswar vide letter no. MSM/FM/17--ORI/BHU/2018-19/1086, dated 06.08.2018 valid up to 31.03.2020. The review of the mining plan for the period 2020-2025 has already been approved by IBM vide letter no. RMP/A/19-ORI/BHU/2019-20 dated 13.11.2019 covering the above proposed changes. Consent to Operate has been obtained from OSPCB, Bhubaneswar vide letter no. IND-I-CON-242 dated 28.03.2019 which is valid till 31.03.2020. Certified Compliance report of Environmental Clearance has been obtained from the Regional Office, MoEF&CC, Bhubaneswar vide letter no. 101-570/09/EPE dated 29.01.2020. Stage-II Forest clearance exists for the total forest land within the Mining Lease.

7. Project Proponent submitted that in order to assess the likely impacts, if any, on the local road infrastructure and air quality of the area, due to the proposed above mentioned changes in the scope of work, specific environmental studies viz., Traffic Density Study and Air Quality Impact Prediction Study have been carried out and incorporated in the enclosed addendum to EIA/EMP Report. It has been observed that adequate road capacity is available to undertake additional traffic load due to iron ore transportation by road from fine dumps located in 5.1 Sq. Mile lease as proposed. Further, the air quality impact predication also shows the quality of air within the permissible limit. The proposed liquidation of fines will not only result in effective utilization of these low grade minerals, but also eliminates environmental hazards associated due to storage of fines besides meeting the iron ore demand during scarcity period of the country. PP reported that the Installation of in-pit crushing and screening plant (fixed/mobile) of capacity up to 300 TPH, one no. in each D, Panposh, F, G and B & C Quarries for achieving the maximum production (Earlier provision was for Installation of pit head crushing plant at D & Panposh Quarries) within the approved EC capacity and Updation of mineral reserve from 137.72 MT (with life of mine 12 years) to 315 MT (with life of mine 26 years), which has been established through the exploration. Updation of Waste generation quantity after detailed exploration from 13.729 Million m³ to 56.042 Million m³ till the end of conceptual period.

8. The Project Proponent has reported that Subsequent to the judgment of Apex Court dated 02.08.2017, the Governments of Odisha vide letter dated 23.10.2017 issued a demand notice for payment of Rs. 47,49,46,999/-. Against this demand, SAIL

had filed a Writ Petition bearing WP (C) No- 24279/2017 before High Court of Orissa at Cuttack. The matter was heard and Hon'ble High Court had passed the stay order on 04.04.2018 & matter is sub-judice.

9. Based on the discussion held and document submitted the Committee **deferred** the proposal for want of a) PP need to conduct the dump stabilisation studies, b) Transport scenario to be properly calculated and resubmitted, c) Traffic density and road carrying capacity to be calculated, d) Excavation plan to be properly delineated, d) Mass balance to be prepared and quantitative despatch scenario for lump, fines to be submitted, e) impact on pollution load (increase/decrease) due to proposed excavation & despatch plan needs to be submitted. The Committee is of the view that proposal may only be consider after the submission of above information, and site visit by EAC Members & MoEF&CC officials.

(2.5) Expansion of Limestone Production from 6.0 MTPA to 10.50 MTPA (ROM) in the MLA of 548.78 Ha located in Villages: Mohanpura, Kujota, Mahrampura (Rajput), Maharampura (Nawab), Kansli, Kiratpura, Fatehpura, and Ajitpura, Tehsil: Kotputli, District- Jaipur (Rajasthan) by M/s. UltraTech Cement Ltd. [File No: J-11015/08/2020-IA. II(M); Proposal No: IA/RJ/MIN/136203/2020; Consultant: J.M. EnviroTechPvt Ltd]-Consideration for ToR

The Proposal of M/s. UltraTech Cement Ltd is for expansion in limestone production from 6.0 MTPA to 10.50 MTPA (ROM) with total excavation of 16.8 Million TPA [limestone 10.50 MTPA (ROM), 5.72 million TPA of Waste, 0.53 Million TPA of Clay/sub Soil and 0.05 million TPA of Top Soil] from Mining lease area of 548.78 Ha located in Villages: Mohanpura, Kujota, Mahrampura (Rajput), Maharampura (Nawab), Kansli, Kiratpura, Fatehpura, and Ajitpura, Tehsil: Kotputli, District- Jaipur (Rajasthan). The Mining Lease area falls under SOI Topo-sheet No. G43E2 (Core zone), G43E2 & G43E1 (Buffer Zone) and lies between Latitude: 27⁰ 39' 47.68" N to 27⁰ 41'40.74" N & Longitude: 76⁰ 06' 27.61" E to 76⁰ 08'40.21" E. The mining lease area falls under Seismic Zone II as per IS: 1893 (Part-I):2002.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", as the Mining lease area is more than 100 Ha. PP applied under Schedule 1(a) Mining of Minerals & 2(b) Mineral beneficiation. PP applied online vide proposal No. **IA/RJ/MIN/136203/2020** dated 16.01.2020 and submitted the Form-1 , Pre-feasibility Report . Proposal is placed in EAC meeting

held on 26-27 February, 2020 wherein the EAC deliberated on the following information so far submitted by PP.

3. PP reported that it's a brown filed project and previous EC was granted vide letter No J-11015/350/2008-IA. II(M) dated 30.04.2010 in the name of M/s Grasim Industries Limited. Proposal for change in name in EC from M/s Grasim Industries Limited to M/s. UltraTech Cement Ltd is under process in the Ministry.

4. PP submitted that initially, the mining lease over an area of 548.78 ha was granted to M/s. Rajasthan State Industrial Development and Investment Corporation Limited (RIICO) on 29.06.1984. Then, the Mining Lease was transferred and registered in name of M/s. Grasim Industries Limited on 18.02.2002 and 08.03.2002 respectively. The lease renewal was done on 13.10.2006 effective from 05.07.2004 for 20 years. Afterwards, the Mining Lease deed was executed on 03.04.2007 in name of M/s. Grasim Industries Limited. As per section 8A of MMDR Amendment Act, 2015; **the validity of Mining Lease period has been extended up to 04.07.2034.** Letter for the same has been obtained from Asstt. Mining Engineer, Kotputli vide letter no AME/Kot/CC/Pra./M.L.3/03 (R)/272 dated 10.03.2015. Mining lease has been transferred from Grasim Industries Ltd. to UltraTech Cement Ltd. Vide State Govt letter no P.2 (62) Mines/Group-1/2006 dated 26.06.2018. Transfer of Mining lease deed executed on 27.08.2018 and registered on 28.08.2018. Subsequently, contract of Memorandum of Mining Lease transfer from Grasim Industries Ltd to UltraTech Cement Ltd has been issued by AME Office, Kotputli, DMG, Rajasthan vide letter no. AME / Kot / Reya / Pr /M.L.-3 / 2003 (R) / 34 dated 30.08.2018. Lease deed executed by State Govt on 29.10.2018.

5. The mining operations are being carried out by fully mechanized opencast method of mining with drilling & blasting. Blasted limestone is being/ will be loaded by large size hydraulic excavators into the dump trucks for onward dispatch to the crusher (for limestone) and waste dump (for waste and clay/soil). Blasted limestone is reduced by crushing to meet size requirement of cement plant i.e. crushed to meet <75 mm size. Sometimes the ROM limestone needs screening to separate out clay/siliceous material to upgrade them to meet cement grade quality.

6. PP submitted that already a 1600 TPH crusher is installed in the mining lease. One more limestone crusher of capacity 1600 TPH required for production enhancement will be commissioned in-pit for reducing lead and lift of dumpers supporting eco-friendly mining in the year 2023-24. The crushing and screening

(wobbler) processes are entirely dry and mechanical processes. Crushed Limestone is being/ will be transported from mine site to the Cement Plant via Covered Conveyor Belt. Cement Plant is adjacent to existing Mine site.

7. PP submitted that the total water requirement after expansion in Limestone Production Capacity is 190 KLD which will be sourced from the Bore wells and Mine Sump Water (Rain water as well as seepage water). NOC for dewatering of mine seepage has already been obtained from Central Ground Water Authority vide letter no 21-4(11)/WR/CGWA/2005-1696 dated 25.09.2017 which is valid till 24.09.2020.

8. PP reported that proposal does not require approval/clearance under Forest Conservation Act, 1980, Wildlife Protection Act, 1972 and C.R.Z notification, 2011.

9. The PP submitted that the total project cost for expansion will be 51.0 Crores. The project will get employment to 147 persons.

10. Based on the discussion held and document submitted the Committee **recommended** the Proposal of M/s. UltraTech Cement Ltd for expansion in limestone production from 6.0 MTPA to 10.50 MTPA (ROM) with total excavation of 16.8 Million TPA [limestone 10.50 MTPA (ROM), 5.72 million TPA of Waste, 0.53 Million TPA of Clay/sub Soil and 0.05 million TPA of Top Soil] from Mining lease area of 548.78 Ha located in Villages: Mohanpura, Kujota, Mahrampura (Rajput), Maharampura (Nawab), Kansli, Kiratpura, Fatehpura, and Ajitpura, Tehsil: Kotputli, District- Jaipur (Rajasthan) subject to transfer of Environmental Clearance in the name of M/s. UltraTech Cement Ltd. The Committee prescribed the standard term of references for mining & beneficiation and following additional ToR for preparation of EIA/EMP Report.

A. Additional ToR:

1). 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.

2). 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.

3). 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.

4). PP should submit the real-time aerial footage & video of the mining lease area and of the transportation route.

5). 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.

6). 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.

7). 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.

8). 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.

9). 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.

10). 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.

11). PP should clearly bring out that what is the specific diesel consumption (liters/tonne for total excavation) and steps to be taken for reduction of the same. Year-wise target for reduction in the specific diesel consumption needs to be submitted.

12). 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.

13). 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.

14). 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.

15). 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.

16). 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.

(2.6) Subject: Lunghar Chromite Mines of M/S Sarvesh Refractories Private Limited with the production capacity of 10,531 TPA in the mine lease area of 132.781 Ha located in Village- Lungar, Sub-division- Ukhurl Central, District- Ukhrl, Manipur.-Consideration for ToR.

Proposal No: IA/MN/MIN/130344/2019; File No: J-11015/07/2020-IA. II(M).

The proposal of M/S Sarvesh Refractories Private Limited is for the production capacity of 10,531 TPA in the mine lease area of 132.781 Ha. The mine lease area is located in Village- Lungar, Sub-division-Ukhurl Central, District-Ukhrl, Manipur. The ML area located in survey of India toposheet No. 83 K/8. The mine lease area falls in between Latitudes 25° 09' 52.35" N to 25° 09' 51.35" N and Longitudes 94°28' 10.67" E to 94°27' 43.67" E. The area falls in Seismic zone-V.

2. PP applied vide proposal No IA/MN/MIN/130344/2019 on 13 Jan 2020 and submitted Form-1 & PFR. The proposal is placed in EAC meeting held during February 26-27, 2020 wherein the Committee observed that the mining lease area is mentioned as 132.781 Ha in Form-1 but as per the letter no 43/16/2005-Com&Ind/577 dated 1st October, 2007 submitted by the PP which obtained from the Secretariat: Commerce & industries Department, Government of Manipur the mine lease area is 85 Ha. Due to ambiguity in the mining lease area the Committee **deferred** the proposal and is of the view that PP in case it is Category 'B' mines then PP shall withdraw the application and apply to concern SEIAA else submit the document to in support of the fact that that the mining lease area is **132.781 Ha**.

(2.7) Expansion of Captive "Nawabpet-Talamanchipatnam Limestone Mine" by Expanding its limestone Production Capacity from 3.819 Million TPA to 8.77 Million TPA, Soil ~1.6 Million TPA and OB/Screen Reject ~2.82 Million TPA (Total Excavation of 13.19 Million TPA) (ML Area 407.05 ha) and installation of an additional Crusher of 2000 TPH Capacity with Wobbler at Villages:

Nawabpet & Talmanchipatnam, Taluka: Mylavaram (M) District: YSR Kadapa, Andhra Pradesh by M/s. Dalmia Cement (Bharat) Limited [File No.: J-11015/64/2008 IA.II (M); Proposal No: IA/AP/MIN/109558/2019; Consultant : J.M EnviroNet Pvt. Ltd]-ToR Regarding

The Proposal of M/s. Dalmia Cement (Bharat) Limited is for expansion of limestone production capacity from 3.819 Million TPA to 8.77 Million TPA with total excavation of 13.19 Million TPA which includes [Limestone (ROM) 8.77 MTPA; Soil ~1.6 Million TPA and OB/Screen Reject ~2.82 Million TPA] and installation of an additional Crusher of 2000 TPH Capacity with Wobbler in "Nawabpet-Talamanchipatnam Limestone Mine located at Villages: Nawabpet & Talmanchipatnam, Taluka: Mylavaram (M) District: YSR Kadapa, Andhra Pradesh. The Mining Lease area falls under SOI Toposheet No. Core zone-D44G5 Study area-D44G1, D44G5, D44A4 & D44A8 and lies between Latitude: 14⁰ 56'18.3" N to 14⁰ 57'1.6" N Longitude: 78⁰ 18'53.9" E to 78⁰ 21'27.2" E.

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/AP/MIN/109558/2019 dated 30.06.2019 in Schedule 1(a) for mining of mineral and 2(b) for beneficiation. The PP submitted the Form-1, Pre-feasibility Report. The proposal was placed in EAC meeting held on 30-31 July, 2019. The PP vide its letter dated 31.07.2019 requested Ministry to consider the proposal in next EAC meeting as they are not able to attend this meeting due to some un-avoidable circumstance. The Committee therefore deferred the proposal. The proposal was then placed in EAC meeting held during 24-25September, 2019 wherein the Committee deferred the proposal for want of requisite information. PP submitted the information vide letter dated 6.01.2020 and the proposal is now placed in EAC meeting held during 26-27 February,2020 wherein the EAC deliberated on the following information so far submitted by PP.

3. PP submitted that initially Environmental Clearance for operating limestone mine (407.05 ha. area) was granted in favor of M/s Eswar Cement (P) Limited with vide letter no - 11015/64/2008 IA.II (M) dated 03.04.2008. After amalgamation of M/s Eswar Cement (P) Limited into M/s. Dalmia Cement (Bharat) Limited the Environmental Clearance was transferred in the name of M/s. Dalmia Cement (Bharat) Limited vide Letter No J-11015/64/2008 IA.II (M) dated 17.10.2012.

4. The PP submitted that the Mining lease was granted in favor of M/s. Eswar Cement(P) Limited over an area of 407.05 ha at Villages: Nawabpet & Talmanchipatnam, Taluka: Mylavaram (M), District: YSR Kadapa, Andhra Pradesh by the Department of Industries and Commerce, Government of Andhra Pradesh as per G.O.Ms. No: 10 dated 09.01.2008. The Mining lease executed in Form -K in favour of M/s Eswar Cement (P) Limited as per Proc. No. 225/M/2008 by the ADMG, Yerraguntla dated 24.06.2008 for 30 years (i.e. up to 23.06.2038). Mining lease was transferred from M/s Eswar Cement (P) Limited to M/s. Dalmia Cement (Bharat) Limited by the Department of Industries and Commerce (M-III), Government of Andhra Pradesh as per G.O.Ms. No: 321 dated 08.12.2008. Transfer of Mining lease was executed in form -O in favour of M/s. Dalmia cement (Bharat) Ltd. As per Proc. No. 2005/TML/2008 by the ADMG, Yerraguntla dated 03.03.2009. The validity of Mining Lease is for 50 years, as per MMDR Amendment Act, 2015. Total ML area is 407.05 ha, out of which 402.49 ha is private land and 4.56 ha is Govt. land and private land is under possession of DCBL. PP submitted that there is no litigation pending against the project and/or land in which the project is proposed to be set up.

Comment of EAC: *The Committee observed that PP has not submitted any document regarding extending the validity of lease for 50 years. The PP submitted that letter is not yet received. The Committee thus considered the validity of lease for 30 years only i.e. up to 23.06.2038.*

5. The mining operations are being carried out by fully mechanized opencast method of mining. The mineral mining is being done by conventional Drilling & Blasting method with excavator -Dumper combination. In the lease area the limestone occurs below an overburden of soil and clay the topsoil is of thickness from 0m to 1.5m and below it is yellow colored clay of thickness varying from 3m to 5m. The soil is excavated by a box cut made in top soil which is advanced. The topsoil & yellow material (OB) is very loose in nature it does not require any drilling and blasting. The black top soil is first excavated with dumper excavator combination. → The yellow clay occurring below the topsoil is also removed with dumper and excavator combination. Below the clay zone there is Flaggy limestone about 1m thickness. The fracture zones commonly continue up to 5m resulting in low grade about 42.5% CaO. Thus the first bench in limestone is made 5m height. Below the fractured zone there is dark grey and grey limestone with occasional fractures and soil/ clay intrusion. The second bench made in the limestone is of 9m height. It may be noted although the surface is mostly level alluvial in nature the limestone deposit having concave shape at bottom. Thus bench height parameters occasionally

changes depending on thickness of limestone and occurrence fracture zones. Under such circumstances sub benches are made depending on the local situation. The bench width is made at 30m for running benches at the ultimate pit limit the bench width will be made equal to height of the bench.

6. To reduce the size of the blasted limestone a crusher has been installed in the mining lease area & screening plant to treat the first bench material, to separate the yellow clay intermixed with limestone, The yellow clay is spread across the joints and bedding planes of the limestone in the first bench also. This limestone mixed with yellow clay is having high silica content and low in calcium, so it is not useful to the cement manufacturing without segregation of the yellow clay. The yellow clay is being segregated with help of screening plant/ Wobbler installed in the crusher circuit. In addition to the existing 1000 TPH Crusher, It is proposed to install another Crusher of 2000 TPH to cater to the requirement of proposed expansion.

7. Excavated limestone is being/ will be transported to the crusher via dumpers and crushed limestone will be transported to the Interlinked Cement Plant at distance of ~150 m from mine site boundary by covered conveyor belt having length of ~2.61 km. Conveyor belt will be modified suitably to cater the demand of plant.

8. Two types of soil will be generated i.e. Yellow clay soil and Top Soil. About 8106968 m³ yellow clay & 4528048 m³ soil will be generated till conceptual stage. The OB yellow clay and the top soil will be back filled in to the pit. Generally the yellow clay is first backfilled in the pit and the top soil layer of 0 to 1.5m is spread on the clay and then will be planted with saplings of local species and fruit bearing trees. There is no mineral reject from the mine. The top soil will also be utilized for plantation purpose in the 7.5 meters and 50 meters safety zone. Domestic effluent generated from mine office is being/will be disposed off in soak pit via septic tank. Waste water generated from workshop will be passed through oil & water separator and water will be used for dust suppression.

9. At conceptual stage, out of the total mine lease area, Green belt/plantation. Will be done on backfilled area and stabilized by plantation, along the periphery of the mining lease area, safety zone, and safety barrier along the roads habitation, Nalla etc. and 227.62 ha will be converted into water reservoir for the ground recharge and also for the purpose of pisciculture. At conceptual stage, total 91.63 ha mined out area will be reclaimed by backfilling clay and soil. The area reclaimed will be planted with local species. A green barrier will be constructed along the lease

boundary and the restricted zone. The balance area of 227.62ha will be reclaimed by water reservoir. Thus total reclaimed and rehabilitated area will be 319.246 ha.

10. Total water requirement after expansion in Limestone Production Capacity will be 234KLD which is being/will be fulfilled by rain water only, which is being harvested in the mines out area. Only water requirement for drinking/domestic purpose may be sourced from ground water. PP submitted that one seasonal nalla is flowing in the southern side of the mining lease area. A barrier of 50m width will be left as per the statutory requirement. PP also submitted that Tigalaru River ~ 1.0 km in SE direction.

11. 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.

12. *Previously Committee is of the view that proposal will be considered once the PP submits the compliance of earlier EC Conditions.*

PP vide letter dated 6.01.2020 submitted that RO, MoEF&CC (South Eastern Zone), Chennai has visited the site and issued the certified compliance report of grant of EC vide No EP/12.1/641/TN/019 dated 3.01.2020.

Observation of EAC:*The Committee deliberated on the compliance report and observed that PP needs to submit evidences with supporting documents for compliance of observations of Regional Office report on conditions of EC conditions granted in 2008. PP submitted the documents and Committee is of the view that same needs to be verified from Regional Office.*

13. PP submitted the past production details duly authenticated by DMG, Andhra Pradesh as per which production is well within the sanctioned EC Capacity. In addition to this PP also submitted an undertaking by the way of an affidavit bearing No. CK 022400 dated 16.07.2019 to comply with all the statutory requirement and Common Cause Judgment dated 2.08.2017.

14. The PP submitted that the total project cost for expansion will be 140 Crores. The Cost for EMP will be Rs 5 Crore (Capital) and Rs 1.63 Crore (Recurring).

15. Based on the discussion held and document submitted the Committee **deferred** the proposal and is of the view that proposal may be consider only after PP gets the supporting document verified from the concerned Regional Office for compliance of earlier EC Conditions.

(2.8) Proposal of Deora, Sitapuri&Udiyapura Limestone mine (Auction Block) of M/s UltraTech Cement Limited for production Capacity of 2.0 Million TPA(ROM) Limestone, Top Soil - 0.17 Million TPA, OB & IB - 0.25 Million TPA (Total Excavation - 2.42 Million TPA) from the mine lease area of 344.783 ha located at Manawar, District: Dhar, State: Madhya Pradesh.-Consideration for ToR

Proposal No: IA/MP/MIN/115209/2019; File no. J11015/66/2019-IA. II(M)

The proposal of M/s UltraTech Cement Limited is for Deora, Sitapuri&Udiyapura Limestone mine for production Capacity of 2.0 Million TPA(ROM) Limestone, Top Soil - 0.17 Million TPA, OB & IB - 0.25 Million TPA (Total Excavation - 2.42 Million TPA) from the mine lease area of 344.783 ha. The mine lease area is located at Villages: Deora, Sitapuri, Udiyapura and Muhali, Tehsil: Manawar, District:Dhar, State: Madhya Pradesh. The Latitude and Longitude of the proposed site is 22°19'09" to 22°20'19" N and 75°05'29"E to 75°07'08"E. The mining lease area falls in Survey of India (SOI) Topo sheet no. F43/15, F 43/16, F 43J/3 & F 43J/4. The project is located in Seismic Zone – III.

2. The proposal was considered in the EAC in its meeting held during September 24-25, 2019 wherein the Committee deferred the Proposal for want of requisite information. The PP submitted the information on 07.11.2019 and due to technical issues proposal was not considered in subsequent meeting. The proposal is now placed in EAC meeting held during 26-27 February, 2020.The information submitted by PP and observation of the EAC are as follows:

- I. The PP should submit the water budget incorporating the quantity of surface and 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.**

Total water requirement will be 100 KLD, out of which the drinking & sanitation water requirement of 4 KLD will be met from ground water and remaining requirement of 96KLD will be sourced from the existing mine sump of the adjoining mine lease(Sitapuri Mines). The total capital and recurring

expenditure earmarked for rainwater harvesting is Rs 23.00 lakhs and Rs.1.50Lakhs/Annum respectively.

II. The detailed land breaks up involved in the mine lease area.

PP reported that the total mine lease area is 344.783ha out of which 293.614 ha is private land and 51.169 ha is Government land. The lease area falls in four villages namely Deora, Sitapura&muwali.

III. PP is required to submit the revised project cost including the land cost.

PP submitted the revised project cost i.e. 72.93 crores(including land cost & capital cost).

IV. PP need to submit No Objection Certificate(NOC) from the adjacent mine whose it proposed to use the crushing facility for handling of excavated mineral is 2.0 MTPA(ROM).

PP submitted the No Objection Certificate (NOC) from the adjacent mine of Sitapuri&Udiyapura mine belongs to Ms UltraTech Cement Ltd to use the crushing facility for handling of excavated mineral is 2.0 MTPA (ROM). PP also submitted the undertaking by the M/s UltraTechCement Ltd letter no nil dated 26.02.2020 stating that the total existing crusher capacity will not exceed 3.66 MTPA. The crusher will be utilised till the new crusher install in the proposed mine.

Observation of EAC:The Committee is of the view thatPP shall obtain amendment in the EC of the adjacent mine, the crushing facility of which is proposed to be used.

V. PP need to submit an undertaking in form of affidavit stating that the mined material will not be stored outside the lease area except the captive cement plant else necessary clearance for all applicable statutory provision will be obtained.

PP submitted an undertaking in form of affidavit vide letter no AV 892643 dated 08.11.2019 stating that the mined material will not be stored outside

the lease area except the captive cement plant else necessary clearance for all applicable statutory provision will be obtained.

VI. **Detailed conceptual plan along with Map for proposed mining with reclamation plan and also measures for protection of river, nalla in and around the habitats situated in the vicinity of mine lease area needs to be submitted.**

PP submitted that the total mine lease area is 344.783ha out of which at conceptual stage mined out area will be 189.60ha out the mined area 26.21 ha will be backfilled & reclaimed by plantation and 163.39ha area will be converted into water reservoir. 64.20ha including 37.99ha area of statutory barrier area will be cultivated by Plantation. PP also submitted that beyond this 4.85ha is proposed for infrastructure and 112.343 ha will be undisturbed area. Apart from the above pp submitted that 7.5 m safety barrier along with the plantation is proposed and the 50 m on either side of the water body canal hutment and conveyor belt will be maintained as safety barrier. PP also submitted the 10 m safety barrier alongside the road is proposed by PP.

4. Based on the discussion held and document submitted the Committee **recommended** the proposal for prescribing Term of Reference (ToR) along with the following additional TORs for Deora, Sitapuri&Udiyapura Limestone mine of M/s UltraTech Cement Pvt. Ltd for production Capacity of 2.0 Million TPA(ROM) Limestone, Top Soil - 0.17 Million TPA, OB & IB - 0.25 Million TPA (Total Excavation - 2.42 Million TPA) from the mine lease area of 344.783 ha. The mine lease area is located at Villages: Deora, Sitapuri, Udiyapura and Muhali, Tehsil: Manawar, District: Dhar, State: Madhya Pradesh.

1) PP reported that adjacent crusher will be used till the new crusher till that time PP shall not exceed the crusher capacity beyond the existing capacity.

2) Detailed conceptual plan along with Map for proposed mining with reclamation plan and also measures for protection of river, nalla in and around the habitats situated in the vicinity of mine lease area needs to be submitted.

3) The PP should submit the detailed water budget incorporating the quantity of surface and 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 bring out in the EIA/EMP report.

4) Detailed conceptual plan along with Map for proposed mining with reclamation plan and also measures for protection of river, nalla in and around the habitats situated in the vicinity of mine lease area needs to be submitted in the EIA/EMP report.

5) PP needs to submit the GLC values of all the pollutants in control case and worst case scenario considering the existing Habitats, rodas, water bodies and other terrain features. The PP needs to define the transportation route of thee mineral and impact due to transportation.

6) PP needs to provide the time bound action plan for the installation of new crusher.

7) PP shall obtain amendment in the EC of the adjacent mine, the crushing facility of which is proposed to be used.

8) PP need to conduct the flood zone map shall be drawn by detailed analysis of Hydro and geomorphological changes on temporal scale and a management plan for the flood management shall be included in EMP.

9) The impact of silting in the surface waters due to mining activities shall be assessed.

10) The impact of mining on the tank water shall be analysed based on the hydraulic gradient and conductivity considering the stage of ultimate pit of mining, necessary geophysical and geotechnical parameters shall be analysed to characterise by the aquifer.

11) 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.

12) The PP should submit the revenue plan for mining lease, revenue plan should be superimposed on the satellite imagery clearly demarcate the Govt. land, private land, agricultural land etc.

13) The PP should submit the real-time aerial footage & video of the mining lease area and of the transportation route.

14) The 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.

15) The PP should submit 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.

16) The 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.

17) The 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.

18) PP should submit the measures/technology to be adopted for prevention of illegal mining and pilferage of mineral.

19) PP should submit the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.

20) 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 modeling 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.

21) 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.

22) PP should bring out the awareness campaign to be carried out on various environmental issues, practical training facility to be provided to the environmental engineers/diploma holders, mining engineers/diploma holders, geologists, and other trades related to mining operations. Target for the same needs to be submitted.

23) The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.

24) 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.

25) 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.

26) The original test reports and certificates of the labs which has analyze the samples.

27) 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.

(2.9): River Bed Sand/Morram Mining Project at Yamuna River with production capacity of 2929473 TPA from mining lease area 108.499 Ha located Near Village-DhaurahraKhadar, Tehsil Rajapur& District-Chitrakoot, Uttar Pradesh in favour of M/s Jai Mata Di Packaging [File No.: J-11015/25/2018-IA. II(M); IA/UP/MIN/117929/2018; Consultant: Udaipur Min-Tech Pvt. Ltd]- Consideration of EC

The proposal of M/s Jai Mata Di Packaging is for Mining of River Sand/morram for production of 2929473 TPA of Sand/Morrum from the Yamuna river bed, the total mining area of 108.499 ha located at VillageDhaurahraKhadar, Tehsil- Rajapur& District- Chitrakoot, Uttar Pradesh. The applied area forms a part of Survey of India topo-sheet no. 63G/02, 63G/03. The lease is located at following latitude and longitudes: Latitude: 25°30'00.39"N to 25°30'38.64"N Longitude: 81°07'09.46"E to 81°08'00.12"E.

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.PP applied online vide proposal No.IA/UP/MIN/72663/2018for grant of ToR on 02.02.2018 and submitted the Form1, Pre-feasibility Report. The proposal was considered in EAC meeting held during 22nd -23rd March, 2018 & 22nd -23rd March, 2018 wherein the EAC recommended the proposal for grant of ToR. The ToR letter was issued on 28.05.2018. The PP after conducting public hearing applied for Environmental Clearance Proposal No. IA/UP/MIN/117929/2018 dated 9.01.2020 and the proposal is placed in EAC meeting held during 26-27 February, 2020. Based on the discussion held and document

submitted the Committee observed that i) consultant did not take due care while filing the Form-2 as PP has authorized the consultant to make the application on behalf of the User Agency, but relevant document in pursuant to Ministry's O.M. No J-11015/333/2009-IA. II(M) dated 25.02.2010 is not submitted by PP, ii) copy of public hearing advertisement was not uploaded in Form-2 rather some other document is uploaded, iii) quantity of mineral mentioned in Form -2 is 1464862 TPA but the proposal is of 2929473 TPA, iv) air & water quality data is not filled correctly, v) in place of approval of conservation plan some other letter is uploaded, vi) in place of cluster certificate copy of Lol is uploaded, vii) transportation is mentioned through excavator which is not correct, viii) plantation on 5000 Ha is proposed which is not feasible, ix) complete copy of DSR is not uploaded online, x) for compliance of ToR point no 1 to 4, PP has referred for the surface and geological plan, the details of the grids are not available on the same and PP should submit the relevant information for the compliance of the same, xi) photograph of permanent bench mark is not submitted by PP.

Committee observed that PP has submitted a replenishment study report conducted by CMPDIL which is based on Meyer-Peter's equation. The study reflects that amount of material replenished is less than what is proposed in mining plan. Although during the meeting PP & consultant submitted that the actual replenishment study was also conducted, but no supporting documents or study report was submitted by PP. The ToR was granted for an annual capacity of 2929473 TPA but machine calculation and transportation impact was calculated for 1464862 TPA. Certificate for involvement of forest land and distance of mining lease from protected area is not enclosed in EIA Report. PP did not submit the list of schedule-1 species duly authenticated by concerned authorities.

3. Based on the discussion held and document submitted Committee is of the view that there is serious lapse on the part of consultant in filling the Form-2 and submission of relevant document. The Committee is of the view that Ministry may

initiate action against consultant. The Committee returned **the proposal in present form** due to above short comings and is of the view that PP may apply afresh with revised EIA Report after rectifying the above shortcoming and compliance of ToR conditions. In case there is a cluster situation as per cluster certificate then cumulative impact needs to be ascertained, transportation route needs to be defined on map & KML file. Activity Wise, time bound budget for Occupational Health, EMP, Plantation, and CER should be submitted. Frequency & location of monitoring station needs to be submitted. PP and Consultant needs to be submit i) an undertaking by the way of an affidavit to comply with the Common Cause Order and other statutory requirements in pursuant to O.M. dated 03.05.2018, ii) undertaking that all the data and information given in the application, enclosures, and other documents are true to the best of my knowledge and belief and PP is aware that if any part of the data and information submitted is found to be false or misleading at any stage the project will be rejected and clearance given if any to the project will be revoked at their risk and cost, iii) Consultant needs to submit an undertaking that EIA/EMP Report is prepared by them and data and information provided in the same is 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.

(2.10) Pachhtardi Limestone Mine of M/s. Shree Digvijay Cement Co. Ltd with Production Capacity 0.35 million TPA (ROM) in the mine lease area of 18.03.88 ha Near Village: Pachhtardi, Taluka: Bhanvad, District: Devbhumi Dwarka (Erstwhile Jamnagar), Gujarat-[Proposal No: IA/GJ/MIN/65781/2017; File no: J-11015/240/2016-IA.II (M)]-Consideration of Environmental Clearance.

The proposal of M/s. Shree Digvijay Cement Company Ltd. (SDCCL) is for Pachhtardi Limestone Mine with limestone Production Capacity of 0.35 Million TPA in the mine lease area of 18.03.88 ha. The mine lease area is located at survey No 78/p near Village: Pachhtardi, Taluka: Bhanvad, District: Devbhumi Dwarka (Erstwhile

Jamnagar), Gujarat. The mine lease area falls between the Latitude 21° 51' 16.39"N to 21° 51' 38.11"N and Longitude 69° 40' 58.74"E to 69° 41' 33.83"E.

2. The proposal was considered in the EAC in its meeting held during November 27-28, 2019 wherein the Committee differed the proposal for want of information PP submitted the information on 06 Jan 2020, accordingly the proposal has been considered in the EAC in its meeting held on 26-27 February, 2020 wherein the PP submitted the following:

- I. **The Committee observed that the amendment in ToR is not yet granted. The Committee mentioned that the Ministry will investigate the same and issue the amendment in ToR, if all necessary documents are submitted as sought in February 2019 EAC meeting. However, the Public Hearing carried out for the proposal shall be valid for consideration of appraisal as the same has been carried out as per the provision of EIA-2006, provided there is no significant change in basic proposal in the amended ToR.**

The Member secretary informed the Committee that amendment is under process.

- II. **PP shall submit revised action plan to address the concerns raised in public hearing with budgetary provision and timeline.**

PP has proposed revised action plan to address the concerns raised in public hearing with budgetary provision as: i) to Improvements in Infrastructures of School earmarked with budget of Rs 2.0 Lakh and for School Bags & Kits Distribution to Students, Rs 1.0 Lakh; ii) during PH a budget of Rs. 2.0 Lakhs was proposed for Contribution in Temple & Gaushala Development, Rs. 1.00 Lakhs was earmarked for Roads Maintenance and development and Rs. 5.00 Lakhs for Skill development programme to unemployed people, Rs 1.0 Lakh for Free Medical Camps and Veterinary Camps, Rs 1 Lakh for Promotion of Swachhta Rs 1.00 Lakh Free Supply of Drinking Water to nearby community and Rs 1.0 Lakh for Deepening of water pond.

III. PP needs to revise the CER budget as per the provisions of OM No. F. No. 22-65/2017-IA-III dated 01 May 2018.

PP submitted the revised budget earmarked under Corporate Environmental Responsibility (CER) is Rs 15.0 Lakhs. Which include Activity-1 Education [i) provision for teaching aids for schools, (Rs 1.0 Lakh, timeline 1st year), ii) provision for Improvements in Infrastructures like provision of Washrooms of two Schools, supports in construction and maintenance of playground (Rs 2.0 Lakh, timeline 2nd year),iii) Providing Basic Necessary equipment to PHC like BP Instrument; Electric Auto Clave, SS Dressing Trolley, Instrument Trolley (Rs 1.0 Lakh, timeline 2nd year), iv) Providing Basic Necessary equipment to PHC like Oxy Kit with Filling Adaptor; Semi Fowler Hospital Beds, Electronic Weighing Scales (Rs 1.0 Lakh, timeline 1st year)], Skill development programme like Tailoring classes, Computer training (Sewing machines and computers will be provided by Company) (Rs 5.0 Lakh, timeline 1st year), iv) Renovation and Development of Shamshan Ghat (Cemetry) at Pachhtardi, (Rs 1.0 Lakh, timeline 1st year), Providing Solar Powered Street Lights in Pachhtardi Village (Rs 2.0 Lakh, timeline 2nd year), Arrangement of RO facility for safe drinking water supply in schools and Gram Panchayat (Rs 1.0 Lakh, timeline 1st year), Deepening and maintenance of water pond (Rs 1.0 Lakh, timeline 1st year).

IV. PP requires to properly address the details of issues arises from shifting of school from MLA and find appropriate alternative land for shifting of school and their EMP along with budgetary provisions and timeline.

PP submitted that District Magistrate and Collector, Devbhumi Dwaraka Jilla Seva Sadan has given the consent vide letter no. JAMAN - 1/VASHI/1612/2019 Date: 20.12.2019 for construction of primary school at an alternative site and also given consent to pay reasonable compensation for the agriculture farms. Accordingly, PP submitted that they have noted some parts of Government Waste lands are identified which are available nearby on the other side of the SH in Pachhtardi Village. These are about 250 mtrs and 500 m from existing school in the western side and 500 mtrs on Northern side of Lease boundary on same side, as in Existing School. These parts of the land may be used

for construction of New School Building, subject to allotment of the same by the District Administration.

Observation of the EC:PP need to submit the letter of agreement from the Local panchayat in consultation with the local people for shifting the school along with the proper planning, budget and time line for completion of the School.

V. PP needs to submit details of measures required for protection of agriculture land in the adjoining lands and probable impact zone area along with budgetary provisions.

PP submitted that the mine lease area is surrounded by Agricultural Private Land in Northern and Southern sides of Mining Lease with the distance of 300m from North side of the mine lease area and 900 m in southern boundary of the lease and in compliance to the mitigation measures PP submitted that the mining will not be carried out by the drilling and blasting and Mining will be undertaken by eco-friendly Surface Miner/Ripper Dozer. PP also submitted that 7.5 m width shall be left in-situ all along the agriculture land adjoining MLA. Green belt / Plantation shall be started in the First year of working and Besides green belt, stone parapet wall of 1.5' X 5' dimension shall be constructed all along the ML boundary to protect the fields from Risk of accidents as well as to arrest dust. PP also submitted that the Length of mine lease periphery is about 2687 m and therefore 7.5 m width on lease periphery having an area of 2.0150 ha will be developed as greenbelt with 5050 plants. Greenbelt will comprise herbs, shrubs and trees having high dust collection efficiencies. Further PP submitted that regular water sprinkling will be carried out on mining face and during loading tippers and on haul roads to suppress dust. Further, tippers will be covered with tarpuline or will have covers having hydraulic arrangement for closing so that spillage free transportation is there. Additionally, the vehicles will be restricted to speed limitation.

VI. PP requires to submit details and status of plantation in buffer zone and plans for protecting the same.

PP submitted the as per the Land use/ Land cover status of the study area has been assessed using satellite data and as per analysis area under plantation is estimated as 5.85%. The Plantation in buffer zone area includes Trees and shrubs as mentioned in the list of Flora authenticated by concerned Forest Department. Plantation is there in private land as well as in forest land lying in the south-eastern part of study area along with the protective measures. Mining will be done by Ripper Dozer without Drilling and Blasting. However, Protection Plan for Plantation in Buffer Area includes:

VII. PP needs to carry out the impact analysis on transportation of truck over 90 km road and also submit health impact considering the baseline health data of the people in the regions.

PP submitted the impact analysis on transportation of truck over 90 km road along with the health impacts considering the baseline health data of the people in the regions as per study conducted by the PP it was noted that diseases found in the villages are Diabetes Mellitus, Hypertension, Chronic Low back ache, Eye ailments, Ear ailments, Dental ailments, Throat ailments, Respiratory ailments, DM with HT, Sciatica, Gastric ailments, Muscular ailments, Joint ailments, Skin ailments and Anemeia which are common not related to mining project. However, following measures are proposed.

- i. Greenbelt will be developed in safety zone of 7.5 m width on lease periphery having an area of 2.0150 ha with 5050 plants. Greenbelt will comprise herbs, shrubs and trees having high dust collection efficiencies.
- ii. Transportation route has been selected away from forest area in opposite direction and does not pass through sensitive areas.
- iii. Pollution control measures for ambient air, water, noise will be taken to maintain within the prescribed standards and Regular Ambient air quality monitoring, noise monitoring & water quality analysis will be done.
- iv. Efforts will be made under CER to improve the hygiene, sanitation, education and infrastructure of the nearby villagers. All the employees when inducted will be

medically examined. Further, they will also be medically examined at periodical interval.

- v. PP proposed 2.0 Lacs (Two years) for the above activities.

VIII. PP needs to submit the details of precautionary measures considered for protection of village (Pachhtar- adjacent to MLA) and associated budgetary provisions.

PP also submitted that Pachhtardi village is lying 50m away from Mining lease area in the western side, and Bhanvad-Porbander state Highway No.95 is passing adjacent to ML area and separating the MLA from Pachhtardi village. PP submitted that Avenue Plantation shall be maintained on either side of village road in coordination/ permission with Gram Panchaya. PP also submitted that water sprinkling will be done on the haul roads to suppress the dust. In addition to this PP also submitted that tippers will be covered with tarpuline or will have covers having hydraulic arrangement for closing so that spillage free transportation shall be there. Additionally, the vehicles will be restricted to speed limitation. PP also earmarked the budget for the above activities as for Plantation: Rs. 0.50 Lacs + 3.93 Lacs Per Annum; Dust Suppression Rs. 6 Lacs/Annum and AAQ & Noise Monitoring- Rs. 1 Lac/Annum.

IX. PP needs to submit details of environment management cell and proposed performance including monitoring and their educational backgrounds.

PP submitted the details of environmental management cell as HOD(mines having the degree in mining with first class mine managers Certificate, Mines Manager, Manager(Safety and Environment) with the qualification of Environmental engineering/Science, Residential geologist with the qualification of masters in Geology, Mining Engineer with the qualification of Mining Graduate engineer and Mines foreman with the qualification of Diploma Mining.

X. PP ensured that a group of qualified and efficient engineers with technicians will be deputed for maintenance, up keeping and

monitoring the pollution control equipment, to keep them in working mode at the best of their efficiencies.

PP ensured that a group of qualified and efficient engineers with technicians will be deputed for maintenance, keeping and monitoring the pollution control equipment, to keep them in working mode at the best of their efficiencies.

3. Based on the discussion held the Committee **deferred** the proposal is of the view that PP need to submit the letter of agreement from the Local Panchayat for shifting of school along with the proper planning, budget and time line for completion of the School.

(2.11) Subject: File No: J-11015/29/2011-IA. II(M) Proposed Amendment in existing EC for Captive limestone mine for Limestone production of 10 MTPA in 422.94 Ha by M/s Chettinad Cement Corporation Limited at kallur Village, Chincholi Taluka, Gulbarga. IA/KA/MIN/123452/2019- Amendment in EC

PP did not attend the EAC Meeting, hence the EAC **deferred** the proposal.

(2.12) Subject: Amendment in Environmental Clearance, w.r.t. reduction of mining lease area from 1236.479 ha to 1085.365 ha, for New Captive Limestone Mine Production capacity of 4.0 MTPA Limestone located at Near Village: Chilhati, Tehsil: Masturi, District: Bilaspur, Chhattisgarh by M/s Nuvoco Vistas Corp. Ltd. (formerly Lafarge India Limited)- [Proposal No: IA/CG/MIN/136569/2020 File No: J-11015/210/2010-IA. II(M)] - Consideration for Amendment in EC.

The proposal of M/s Nuvoco Vistas Corp. Ltd. is for Amendment in Environmental Clearance w.r.t. reduction of mine lease from 1236.479 ha to 1085.365 ha in the existing EC granted to the M/s Lafarge India Limited for New Captive Limestone Mine Production capacity of 4.0 MTPA Limestone located at Near Village: Chilhati, Tehsil: Masturi, District: Bilaspur, Chhattisgarh.

2. The Environmental Clearance was obtained from the Ministry, in the name of M/s Lafarge India Limited over an area of 1236.479 ha vide letter no. J-11015/210/2010-IA-II (M) dated 18th September, 2014. The mining lease area was

reduced from 1236.479 ha to 1085.365 ha due to deduction of restricted areas (Government grassland, approach roads) from the mining lease. By the Mineral Resource Department (Chhattisgarh) vide letter no. 3-86/2007/12(2) dated 03.07.2019.

3. During the presentation PP submitted that earlier M/s Lafarge India Limited, has applied in the Ministry for transfer of EC vide letter no J-11015/210/2010-IA-II (M) dated 18th September, 2014 from M/s Lafarge India Limited to M/s Nuvoco Vistas Corp. Ltd. The letter of intent has been issued by Chhattisgarh State Government for areas of 1236.479ha vide their letter no. F3-86/2007/12(2) dated 7th December, 2009. The Mineral resource department, Chhattisgarh , Govt of Chhattisgarh has reduced the lease area from 1236.479 ha to 1085.365 ha vide letter no 3-86/2007/12(2) dated 03.07.2019 in which it mentioned that due to deduction of restricted areas (Government grassland, approach roads) and now same is revised from 1236.479 ha to 1085.365 ha. PP also submitted the addendum to mining lease agreement dated 30th November, 2017 for execution on lease over reduced area of 1085.365ha in the name of M/s Nuvoco Vistas Corp. Ltd for a period of 50 years w.e.f. 15.12.2015 to 14.12.2065.

4. Based on the deliberation held during the meeting the Committee **deferred** the proposal for want of following information:

- I. PP need to submit the revised EMP for the reduced area of 1085.365 ha along with land use land cover details.
- II. PP shall prepared the revised stage wise mine development plan considering the back filled area duly approved by the Competent authority. Besides this PP shall also bring the Compensation provided for the plantation.
- III. PP shall carried out the air quality impact assessment and other environmental parameters study report considering the adjoining the emissions from the mine, settlements, terrain features, and water bodiese.t.c., the mitigation measurements for the sustainable environment.
- IV. Compliance of the existing EC conditions of conveyor belt duly authenticated by the R.O. MoEF&CC.

- V. The Committee also suggested that Ministry may review the matter from view point of change in mining plan due to reduction in mine lease area.

(2.13) Amendment in Environmental Clearance granted vide letter no. EC/ SEIAA / 2015 – 16 / 694 / 2015 / 1291 dated 17th August, 2015 for selling of mineral in open market and change in mode of mineral despatch from Topailore Mining Lease (14.15 Ha) of M/s Steel Authority of India Limited (SAIL) 0.6 MTPA and at Village- Topailore, Tehsil- Noamundi District-West Singhbhum, Jharkhand. [Agenda Item 2.13; File No. J-11015/272/2011-IA. II(M); Proposal No: IA/JH/MIN/135407/2020, Consultant: M/s MECON LTD]-EC Amendment.

The proposal of M/s. Steel Authority of India Limited is for amendment in Environmental Clearance granted vide letter no. EC/ SEIAA / 2015 – 16 / 694 / 2015 / 1291 dated 17th August, 2015 for i) Transportation of part of excavated fines to Gua Public Siding by road [existing: Transport to beneficiation plant by conveyor; proposed: Transport by Internal road to Gua public siding], ii) Excavation of fines from Fines Dump [existing: 0.6 MTPA for beneficiation & pelletisation; proposed: 0.6 MTPA excavation for selling in open market], and iii) Transportation of remaining part of excavated fines to Gua Public Siding by road [existing: Transport to beneficiation plant by conveyor; proposed: Transport by internal road & public road] .The Topailore Mine [ML Area 14.15 ha] of Gua Ore Mines is located in Tehsil Noamundi, District West Singhbhum, Jharkhand is a part of Survey of India Topo-sheet bearing no. 73F/8 (F45H8) and is bounded by latitudes from 22°12'35.788" N to 22°12'45.184" N and from Longitudes 85°21'0.336" E to 85°22'19.726" E. The entire mining lease area is located in Ghatkuri Reserve Forest.

2. PP submitted that there is no geological reserve in the Topailore Lease, but about 6.58 million tonnes of iron ore fines i.e. part of the Fines Dump at Gua Ore Mines, is stacked in the lease. Environmental Clearance was granted for excavation of 0.6 million tonne per annum of Iron ore fines from the fines dump and transportation to the proposed Beneficiation & Pelletisation plants via covered conveyor which is located in adjacent Durgaburu lease. Though all the statutory clearances exist, excavation of fines from the fines dump in the Topailore Mining Lease could not commence since installation of envisaged beneficiation & pellet plants for the processing of the fines is being delayed for want of Stage – II forest Clearance over an area of 361.295 ha which is still pending with MoEFCC, New Delhi.. . Of late, Ministry of Mines, Govt. of India vide order dated 16.09.2019 allowed sale

of low-grade tailings/fines lying at mine pit heads at SAIL Captive Mines in open market for their effective utilization and eliminate environmental hazards. In compliance to directions of Ministry of Mines, Govt. of India, SAIL intends to resume mining operation in Topailore Lease by excavation of the fines from the Fine Dump within the approved EC limit of 0.6 MTPA for selling in open market till installation of the envisaged beneficiation & pellet plants at Gua Ore Mines, which will take about 4 years after grant of Stage – II Forest clearance over 361.295 ha under Durgaiburu lease. 5. The instant proposal is for modification / amendment of Environmental Clearance granted for Topailore Iron Ore Mining Project of Gua Ore Mines, SAIL to allow excavation of fines from the Fines Dump and transport involving road / rail for selling in open market.

3. PP submitted that Environmental Clearance has been granted by the SEIAA, Jharkhand vide letter no EC/ SEIAA / 2015 – 16 / 694 / 2015 / 1291 dated 17/08/2015 as the proposal was category 'B' project as per EIA notification 14th September 2006 (amended time to time) as the mining lease area is less than 50 Ha. However, at present SEIAA Jharkhand is not functioning and due to this proposal in Form-4 is submitted to Ministry vide proposal No. **IA/JH/MIN/135407/2020** dated 17 Feb 2020 for amendment in EC. The proposal is placed in EAC meeting held during 26-27 February, 2020.

4. During the meeting PP information that amendment is also required in the mine lease area i.e. from 14.16 ha to 14.15 ha as the Original lease deed is for 14.15 ha.

5. Project Proponent informed that Ministry of Mines, Govt. of India have noted that the large stocks of low grade material viz. low grade fines, slimes and sub-grade ore/fines extracted from the captive mines of M/s SAIL and which are not suitable for end-use of captive purposes has been accumulated over the years and which has occupied huge area within and/or outside lease areas and are liable to cause environmental hazards. The Ministry has also observed that M/s SAIL does not have enough beneficiation and pelletisation capacity to consume these low grade fines/ore, slimes and sub-grade ore/fines. In view of the economic rationale for realisation of full value of such mineral extracted from the captive mines and providing flexibility for complete utilisation of all grades of minerals, the Ministry of Mines, Govt. of India vide no. F.NO/16/30/2019-M.VI dated 16.09.2019 has directed the concerned State Governments to allow M/s SAIL to sell these low grade fines/ slimes in open market. The Ministry has also directed the concerned State Governments to allow M/s SAIL to sell fresh

iron ore up to 25% of total previous year production for two years to mitigate the risk of possible shortage of iron ore on account of aforesaid expiry of mining leases.

6. The Project Proponent reported that the mining plan for Topailore lease was approved by IBM vide letter no. 314(3)/3006- MCCM(CZ)/MP/-17 dated 26.04.2007 for a capacity of 80,000 tonne in first year and thereafter for a capacity of 6,00,000 tonne per year for the next four years. Modification in approved of Mining Plan for period from 2017-18 to 2021-2022 has also been approved by IBM vide letter No. RAN/WSB/Fe/MP-14/2019-20 dated 26.12.2019. The entire Topailore Mining Lease area (14.15 ha) is forest area under Ghatkuri Reserve Forest. Stage-II Forest Clearance (FC) for diversion of entire forest land under the Topailore Leases over 14.15 ha has been granted by Ministry of Environment, Forest & Climate Change (MoEFCC), Regional Office, Jharkhand vide letter no. 5-JHC092/2009-BHU/3497 dated 04th October, 2019. PP reported that the transportation of most of the excavated fines from the Topailore Mining Lease by private road (SAIL owned) to Gua Public Siding covering a distance of about 3.5 km for further dispatch by rail. Transportation of remaining excavated fines through private road (SAIL owned) covering a distance of 2.2 km & subsequently through Public Road up to Barajamda Railway Siding & thereafter by rail or directly by road by other agencies.

7. The proposed change in scope of work does not have any significant adverse impacts on environment as revealed by the studies undertaken. Further, proposed additional pollution prevention and control measures under the current proposal will further improve environmental quality and land use of the area and also maintain & improve socio-economic aspects of the region. Project Proponent also submitted that in order to assess the likely impacts, if any, on the local road infrastructure & air quality of the area, due to the proposed changes in the scope of work, specific environmental studies viz., Traffic Density Study and Air Quality Impact Prediction Study have been carried out through M/s MECON and incorporated in the enclosed addendum to EIA/EMP Report. It has been observed that adequate road capacity is available to undertake additional traffic load due to iron ore transportation by road to the Public Sidings at Gua and Barajamda. Further, the air quality impact predication also shows the quality of air is within the permissible limits. The proposed utilization of fines from the fines dumps will not only result in effective utilization of these low grade minerals, but also eliminates environmental hazards associated due to storage of fines. The proposed change in scope of work does not

have any significant adverse impacts on environment as revealed by the studies undertaken.

8. Based on the discussion held and document submitted the Committee **recommended** the proposal for amendment in EC to convey mineral by road to public siding by the road within the mining lease area and road owned by M/s SAIL outside ML area. No public road will be utilised. This amendment is only valid for 5 years.

2.14: Production of 306065 Tonne of Manganese Ore from Guguldoh Manganese Ore Block (ML Area 105 Ha) located at Villages: Manegaon, Taluka: Ramtek, District - Nagpur, State – Maharashtra by M/s Shanti G.D. Ispat & Power Pvt. Ltd. [File No.: J-11015/05/2020 IA.II (M); Proposal No: IA/MH/MIN/129481/2019]-ToR Regarding

The Proposal of M/s Shanti G.D. Ispat & Power Pvt. Ltd is for Production of 306065 Tonne of Manganese Ore from Guguldoh Manganese Ore Block (ML Area 105 Ha) located at Villages: Manegaon, Taluka: Ramtek, District - Nagpur, State – Maharashtra. 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/MH/MIN/129481/2019 dated 29.01.2020 in Schedule 1(a) for mining of mineral. The PP submitted the Form-1, Pre-feasibility Report. PP reported that general condition is not applicable for the project. The proposal is placed in EAC meeting held on 26-27 February, 2020 wherein the based on the discussion held and document submitted Committee **returned the proposal in present form** and is of the view that PP shall apply a fresh with following information:

- a) Application should be made for total excavation from the mining lease area.
- b) Whether there is requirement of clearance under wildlife protection act 1972 due to proximity of the protected area/wildlife sanctuary.
- c) Cut -off grade should be as reported by Indian Bureau of Mines to be considered.
- d) Type of crusher, its capacity, number of crusher, location of crusher needs to be provided by PP.
- e) PP needs to submit the compliance of Ministry's O.M No 21-103/2015- IA.III dated 2.11.2018.

2.15.Wah-Pynkon Limestone Mine-II of M/s STAR CEMENT LIMITED with proposed expansion production capacity of Limestone from 49,275 TPA to 6,78,123 Lakh TPA in mine lease area of 13.58 Ha, located at Village Lumshnong, Tehsil-Khliehriat, District- East Jaintia Hills, Meghalaya. [Proposal No: IA/ML/MIN/117068/2019; File No: J-11015/06/2020-IA. II(M) Old file no: J-11015/193/2015-IA. II(M).]-Consideration for ToR

The proposal of M/s STAR CEMENT LIMITED with proposed expansion production capacity of Limestone from 49,275 TPA to 6,78,123 Lakh TPA in mine lease area of 13.58 Ha, located at Village Lumshnong, Tehsil-Khliehriat, District- East Jaintia Hills, Meghalaya. The mine lease area falls in-between falls on latitude 25°09'.43.0"N to 25°09'58.5" N and longitude 92°23'12.9" E to 92°23'40.1"E. The mining lease area falls in Survey of India (SOI) Topo sheet no. 83 C/8 is restricted.

2. The proposal is a category 'A' proposal due to applicability of general conditions as Narpuh Wildlife Sanctuary is located at 3.2 Km in SE direction from the mine lease area.

3. PP reported that Ministry accorded the Environmental clearance vide letter no J-11015/193/2015-IA.II (M) dated 3rd march, 2016 for production capacity of 49,275 TPA(ROM) of Limestone.

4. PP reported that the total mine lease area is 13.58ha and the total mine lease area is private non forest and. The LOI for ML area was granted by the State Government vide letter no. MG.96/2007/82 dated 22.07.2010 and issued grant of mining lease vide letter no.MG96/2007/283 dated 04.01.2017. The mine lease deed is executed in-between Mining and Geology department, Govt. of Meghalaya and M/s Star Cement Limited for a period of 50 years from the date of grant of the Mine lease area, over an area of 13.58ha.

5. PP reported that the modified mining plan has been approved by IBM, Guwahati vide letter no. IBM/GHY/MEG/JNH/LST/MP-69 dated 24.01.2019 as per the modified mine plan the method of mining will be done by fully mechanised opencast method involving drilling and Blasting with the help of excavator/loader and dumper. Bench height will be kept at 6m & working bench width will be 15-20m. Dust suppression will be carried out in working area and haul roads by sprinkling of water with water tanker. Wet drilling will be practiced to reduce noise generation. PP reported that the geological reserves are estimated as 15,315,993.63 Tonnes and the Mineable reserves are estimated as 47,40,774.80 Tonnes as per Approved modification of mining plan. The life of mine based on proven and feasible reserves

is estimated at 15.31 Million Ton will be about 22.5 Years with maximum production level of 0.678 Million TPA. As per present proven reserve under category (111) estimated at 4.74 Million TPA, the life of mine is expected to be about 7 years. No overburden (OB) will be generated during the mining plan period. Top soil, if generated will be stacked in the mine lease and will be further used for plantation.

6. PP reported that the mine lease area is at a distance of 3.2Km from the Nerpuh Wild Life Sanctuary. Schedule I species are reported in the study area. A species Specific conservation plan for schedule I species has been prepared and which was approved by the PCCF, Meghalaya vide no. MFG. 16/50/CMCL/Vol/14748, dated 21th January, 2016, has verified that the notified boundary of narpuh Wild life Sanctuary is 3.2 KM and distance from the Eco-Sensitive zone is 1.88 km.

Observation of EAC: The Committee is of the view that Ministry may examine for any non-compliance of EC w.r.t. requirement of NBWL clearance.

The total water requirement is 15 KLD, out of which 1 KLD for drinking purpose, 6 KLD for mining & allied activities, and 8 kld for Sprinkling. The water shall be met from Cement plant of CMCL. No Ground water intersection will be done during the mining operations.

7. The total cost of the project is Rs 12.35 Crores and the project will generate the employment of 42 directly and indirectly. PP also reported that at present 21 personnel are working at mine site, in addition to that 21 workers will be required during expansion. Besides there will be an indirect employment on account of transportation, canteen, repair shop, security etc.

8. The proposal was placed in EAC meeting held during February 26-27, February, 2020 wherein the Committee **deferred** the proposal for want of following information and is of the view that the Ministry may examine the documents submitted by PP for requirement of amendment in EC and also for any non-compliance of EC w.r.t. requirement of NBWL clearance.

- I. Legible copy of the EC compliance report and efforts made by PP for obtaining NBWL clearance.

(2.16) Kirari Limestone Mine (ML Area 167.048 Ha) with production capacity of Limestone 0.36 MTPA, Soil 76583 TPA, OB 54249 TPA at Villages Kirari&Chorbhatti, Tehsil Akaltara, District Janjgir-Champa, Chhattisgarh. [Proposal No: IA/CG/MIN/80467/2018; File No: IA-J-11015/45/2019-IA-II(M)]-. Consideration for ToR

PP did not attend the EAC meeting therefore the Committee **deferred** the proposal and informed the Ministry the said proposal may be considered after request of the PP only.

(2.17) Table Agenda: Standardisation of Term of Reference (ToR) for Non-Coal Mining Projects

The Member Secretary placed the Standard ToR conditions for grant of auto TOR for Non-Coal Mining Project. The Committee deliberated on the same and **recommended** the Standard ToR and is of the view that Ministry may upload the same on the PARIVESH Portal after obtaining approval of the Competent Authority. The copy of the recommended TOR shall not be put on public domain, till permission of competent authority in Ministry is not obtained and therefore it shall not be part of this Minutes.

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 Ministry's O.M No 22-34/2018-IA.III dated 8.01.2019
and Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020)**

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 well 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.
- 44) In pursuant to Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Hon'ble Supreme Court on 8.01.2020 in W.P. (Civil) No 114/2014 in the matter Common Cause vs Union of India, the mining lease holder shall after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

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 waterfogging 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, PM2.5, SO2, NOx 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, PM2.5, SO2, NOx 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) Overburden/ 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 selfsustaining. 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.

