

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

SUMMARY RECORD OF 15th MEETING OF THE COMMITTEE OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF NON-COAL MINING PROJECTS CONSTITUTED UNDER THE EIA NOTIFICATION, 2006.

The 15th 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 **April, 20-21, 2020 through video conference**. The list of participants is annexed herewith. After login of the Committee Members through video conference link provided by NIC, discussion on each of the Agenda Items was taken up ad-seriatim.

(1.1) Deliberation & Circulation on the Minutes of the 14th EAC Meeting held during February, 26-27, 2020:

1. The minutes of 14th Meeting of EAC held during 26-27th February, 2020 was placed before the members of the Committee. The committee confirmed the minutes.
2. Further certain typo errors in the Minutes of 13th EAC Meeting held during January 30-31, 2020 were brought to the notice of the committee for consideration and approval and the committee approved the following modifications in the said MoM, namely: -

In item no 2.2 para no3 line no.5 the file no and date of the TOR may read as 'J-11015/146/2018-IA.II(M) dated 11th December, 2018' instead of 'J-11015/45/2018-IA.II(M) dated 17 July, 2018'.

And

Item no 2.3 para no 2 may be read as 'The proposal was placed in EAC meeting held during 'Jul 31, 2019 To Jul 31, 2019 and February 20-21, 2019 wherein the Committee deferred the proposal and asked PP to submit certain information'. Instead of 'The proposal was placed in EAC meeting held during February 20-21, 2019 wherein the Committee deferred the proposal and asked PP to submit certain information'.

2.0 Deliberation on the proposals as per the Agenda of 15th EAC

**(2.1) Hatgacha (JL No. 1) – Jethia (JL No. 4) Black Stone Mines with proposed production capacity 0.8 Million TPA (ROM) by M/s. West Bengal Mineral Development and Trading Corporation Ltd., located at village: Hatgacha, P.S. – Mohammad Bazar, Mouza-Jethia, District-Birbhum, West Bengal (MLA 71.20 ha) Consultant: Centre for Envotech and Management Consultancy Private Ltd. - EC Regarding.
[IA/WB/MIN/62270/2015; J-11015/379/2015-IA.II(M)]**

1. The proposal of M/s. West Bengal Mineral Development and Trading Corporation Ltd. is for production of 0.8 MTPA (ROM) of Black Stone from Hatgacha (JL No. 1) – Jethia (JL No. 4) Black Stone Mines [ML Area 71.20 Ha] located at Village – Hatgacha, P.S. – Mohammad Bazar, Mouza-Jethia, District-Birbhum, West Bengal. The mine lease area falls in the Survey of India Topo-Sheet No. 72P/12. The latitudes and longitudes of the Mine lease fall between Latitudes 24° 06' 54.55" N to 24° 07' 16.78" N & Longitudes 87° 35' 20" E to 87° 36' 0.85" E.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under **Category A** (General condition applicable) as the mining lease area is within Inter-State boundaries.

3. The Project Proponent applied online for prescribing **Term of Reference** (ToR) and submitted Form-1 and Pre-feasibility report. Further, the PP vide letter dated 20.11.2015 submitted Revised Pre-feasibility Report, Revised Form-II and Lease documents. The proposal was considered in EAC meeting held on 22-24 September, 2015 wherein the EAC recommended the proposal for prescribing Term of Reference (ToR). The ToR letter was issued on 30.1.2015.

4. The proponent submitted that the public hearing was conducted on 09.09.2016 at 11.30 AM in the premises of Bharkata G.P. Office, Dist. – Birbhum, West Bengal and was presided over by Dr. Uma Sankar S, IAS, ADM, Birbhum.

5. The proposal was earlier considered by EAC in its meeting held during 20- 21 March 2017 for consideration of EC. The Committee deferred the proposal for want of requisite information. The proponent submitted the information online and the proposal was again reconsidered in the EAC meeting held on 29-30 August, 2017. Based on the discussion committee deferred the proposal and was of the opinion that the proposal can be reconsidered after the proponent submits the requisite information. PP vide letter no MDTC/P-32(III)/1111 dated 23rd November, 2018 had submitted the information, Accordingly the same was considered in the EAC in its meeting held during 22-23, January, 2019 wherein the Committee deliberated on the information submitted by PP and noted that PP did not submit the requisite information as sought by the EAC's held during 29-30 August, 2017. The Committee asked the representatives of M/s West Bengal Mineral Development

and Trading Corporation Ltd. whether they have examined the reports before coming as the EIA/EMP report is not in agreement with the requirement of Appendix-III of EIA notification, 2006 and requirement arising for compliance ToR. The Committee therefore returned the proposal in the present form and the Committee opined that as the Consultant has provided inadequate information in the EIA report as per the provision of the notifications and other guidelines, accordingly necessary action against the consultant may be initiated by the Ministry.

6. PP vide letter no MDTC-P32(II)CAMP-BBS/1 dated 10th April, 2019 had submitted revised application online in the PARIVESH portal, accordingly, the proposal was appraised in the EAC in its meeting held during May 29-30, 2019 wherein the Committee observed that PP/Consultant uploaded incomplete information and PP also submitted the letter no 695-C1/O/MM/42/10/MINES dated 15.11.2018 from the Department of Large Industries and Enterprise, Mines Branch, Government of West Bengal w.r.t. lease validation wherein inter-alia mentioned that “ a mining lease for blackstone in respect of the under mentioned area for a period of twenty(20) years shall be granted provisionally to WBMDTCL on complying with the following conditions and execution according to law within a period of 6 months from the date of this order”. However, PP did not submit any proof of execution and revalidation of mine lease area. The committee also observed that PP/Consultant did not submitted the required documents as sought by the EAC in earlier meeting. Therefore, the committee deferred the proposal and informs the PP to submit the following information:

- I. Occupational health survey and dust surveillance plan and its mitigation measurements plan.
- II. Detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.
- III. Cumulative impact study for the dust generation from mine and crusher with suggested mitigation measures to reduce the amount of dust.
- IV. Hazard Identification and Risk Assessment Plan
- V. A letter from the State Mines and Geology department revalidating the LoI.
- VI. Need based survey of the project affected families.
- VII. The District Survey Report as per S.O. 3611(E) dated 25.07.2018.

VIII. 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.

7. PP vide letter no MDTC/P-32(II)/921 dated 19th September, 2019 has submitted the following:

- I. PP submitted the Health Survey in and around the Project Area. PP also submitted the dust surveillance Plan along with the mitigation plan.
- II. PP submitted the report of the detailed mineralogical and chemical composition study of the mineral and percentage of free silica along with SiO₂, Al₂O₃, MgO, Fe₂O₃, Cao is done at National Test House (Eastern Region), Kolkata. In the free silica percentage by mass was found as NIL.
- III. PP submitted the detailed Impact and mitigate measures for the dust generation from mine and crusher is submitted.
- IV. PP submitted the Hazard Identification and Risk Assessment Plan for the mine.
- V. PP submitted that the mine lease over an area of 178.93ha was provisionally granted by the Department of Large Industries and Enterprises, Mines Branch, Govt. of West Bengal vide letter no 695-CI/O/MM42/10/MINES dated 15.11.2018 for a period of 20 years i.e. from 08.11.2002 to 07.11.2022 in favor of WBMDTC with a condition of to execution according to law within a period of 6 months from the date of 15.11.2018. PP submitted the vide letter No.428-CI/O/MM42/10/Mines dated 9.08.2019 obtained by the Department of Large Industries and Enterprises, Mines Branch, Kolkata, Govt. of West Bengal stating that validity of the G.O. bearing no. 695-CI/O/MM/42/10/MINES dated 15.11.2018 is extended for a further period of six(6) months w.e.f. 15.05.2019 till 14.11.2019 only.
- VI. PP submitted the need based report the same is verified agreed by the Office of the Sub-Divisional Officer, Suri(Sadar) Birbhum, Government of West Bengal Memo no 1183(I)I/s dated 02.09.2019.
- VII. PP also submitted the letter vide letter no 410/-CI/O/MIN/GEN-MIS/34/2016 dated 30th July, 2019 by the Department of Industry, Commerce & Enterprises, Mines Branch, Govt. of West Bengal stating that the preparation of DSR for the districts of West Bengal is under process in the Department.

VIII. PP submitted the Affidavit no AB 132814 dated 06.03.2019 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.

8. Based on the discussion held and document submitted the committee deferred the proposals and sought the following details

- I. District Survey Report as per the Ministry notification S.O. 3611(E) dated 25.07.2018
- II. PP submitted letter No.428-CI/O/MM42/10/Mines dated 9.08.2019 obtained from Department of Large Industries and Enterprises, Mines Branch, Kolkata, Govt. of West Bengal stating that validity of the G.O. bearing no. 695-CI/O/MM/42/10/MINES dated 15.11.2018 is extended for a further period of six (6) months w.e.f. 15.05.2019 till 14.11.2019. PP need to submit the extended validity of lease and its execution details.
- 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.

9. PP vide letter no MDTC/P-32/180 dated 24th February, 2020 has uploaded the requisite information on PARIVESH portal on 25th February, 2020 which is as follows:

- I. District Survey Report as per the Ministry notification S.O. 3611(E) dated 25.07.2018
- II. Revalidation of grant of Mining lease for Hatgachia-Jethia Black stones Mines which is further extended for a period of 6 (six) month w.e.f. 15.11.2019 issued by Department of Large Industries and Enterprises, Government of West Bengal vide letter No.633-CI/O/MM/42/10/MINES dated 22.11.2019.
- III. CER budget as per the provisions of OM No. F. No. 22-65/2017-IA-III dated 01 May 2018.

10. The proponent submitted that the Mining lease was granted in favour of M/s West Bengal Mineral Development Mineral Development & Trading Corporation on 16.12.2010, vide letter no. 1021-CI/O/MM-42/10/Mines for a period of 20 years.

11. EAC in its meeting held on 29-30 August, 2017, asked to submit a letter from the State Mines and Geology department revalidating the LoI. PP vide letter no MDTC/P-32(III)/1111 dated 23rd November, 2018 had submitted the information, Accordingly the same was considered in the EAC in its meeting held during 22-23, January, 2019 wherein the Committee deliberated on the information submitted by PP and noted that PP did not submit the requisite information as sought by the EAC's held during 29-30 August, 2017. The Committee therefore returned the proposal in the present form. PP vide letter no MDTC-P32(II)CAMP-BBS/1 dated 10th April, 2019 had submitted revised application online in the PARIVESH portal, accordingly, the proposal was appraised in the EAC in its meeting held during May 29-30, 2019 wherein the PP submitted the information. The Committee observed that PP/Consultant uploaded incomplete information vide letter no 695-C1/O/MM/42/10/MINES dated 15.11.2018 from the Department of Large Industries and Enterprise, Mines Branch, Government of West Bengal w.r.t. lease validation wherein inter-alia mentioned that "a mining lease for blackstone in respect of the under mentioned area for a period of twenty(20) years shall be granted provisionally to WBMDTCL on complying with the following conditions and execution according to law within a period of 6 months from the date of this order". However, PP did not submit any proof of execution and revalidation of mine lease area. Therefore, the committee deferred the proposal and informed the PP to submit a letter from the State Mines and Geology department revalidating the LoI. PP vide letter no MDTC/P-32(II)/921 dated 19th September, 2019 submitted that the mine lease over an area of 178.93ha was provisionally granted by the Department of Large Industries and Enterprises, Mines Branch, Govt. of West Bengal vide letter no 695-CI/O/MM42/10/MINES dated 15.11.2018 for a period of 20 years i.e. from 08.11.2002 to 07.11.2022 in favor of WBMDTC with a condition of to execution according to law within a period of 6 months from the date of 15.11.2018. PP submitted the vide letter No.428-CI/O/MM42/10/Mines dated 9.08.2019 obtained by the Department of Large Industries and Enterprises, Mines Branch, Kolkata, Govt. of West Bengal stating that validity of the G.O. bearing no. 695-CI/O/MM/42/10/MINES dated 15.11.2018 is extended for a further period of six(6) months w.e.f. 15.05.2019 till 14.11.2019 only. Based on the discussion held and document submitted the committee deferred the proposals and asked PP to submit the extended validity of lease and its execution details. **PP vide letter no MDTC/P-32/180 dated 24th February, 2020 has uploaded the requisite information on PARIVESH portal on 25th February, 2020 comprising of Revalidation of grant of Mining lease for Hatgachia-Jethia Black stones Mines which is further extended for a period of 6 (six) month w.e.f. 15.11.2019 issued by Department of Large Industries and Enterprises, Government of West Bengal vide letter No.633-CI/O/MM/42/10/MINES dated 22.11.2019.**

The proponent mentioned that **the mining plan** was approved by the Office of the Chief Mining Officer, Asansol, Dist. Burdwan, West Bengal vide Memo.

Dated 28th July, 2014 and as such, mining plan of HatgachaJethia mines is prepared with an envisaged production of 0.8 million tonnes per year.

12. *EAC in its meeting held on 29-30 August, 2017, asked to submit Mineralogical Study of Blackstone to determine the concentration of free Silica/Crystalline Silica. PP vide letter no MDTC/P-32(III)/1111 dated 23rd November, 2018 had submitted the information, Accordingly the same was considered in the EAC in its meeting held during 22-23, January, 2019 wherein the Committee deliberated on the information submitted by PP and noted that PP did not submit the requisite information as sought by the EAC's held during 29-30 August, 2017. The Committee therefore returned the proposal in the present form. PP vide letter no MDTC-P32(II)CAMP-BBS/1 dated 10th April, 2019 had submitted revised application online in the PARIVESH portal, accordingly, the proposal was appraised in the EAC in its meeting held during May 29-30, 2019 wherein the PP submitted the information. The committee observed that PP/Consultant did not submit the required documents as sought by the EAC in earlier meeting. Therefore, the committee deferred the proposal and informed the PP to submit detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory. PP vide letter no MDTC/P-32(II)/921 dated 19th September, 2019 submitted the report of the detailed mineralogical and chemical composition study of the mineral and percentage of free silica along with SiO₂, Al₂O₃, MgO, Fe₂O₃, Cao is done at National Test House (Eastern Region), Kolkata. In the free silica percentage by mass was found as NIL.*

The PP submitted that Opencast method of mining will be adopted with drilling & blasting, on single shift basis with the deployment of 2.5m³ excavator. ROM produced from the mine will be fed into 200 TPH crushing unit for sizing and sized black stone will be loaded manually for dispatch to the consumers.

13. The depth of ground water level near mining lease area in pre & post monsoon are found to be 37 to 39 mbgl & 32 to 34 mbgl respectively. PP submitted that the source of water required will be tubewell and settling pond. PP has obtained permission for tubewell from District Level Ground Water Resource Development Authority, Birbhum vide Permit No. P030800400000026401TSE dated 20.10.2016 in Form-4 under West Bengal Ground Water Resources (Management, Regulation & Control), Act, 2005. PP submitted that Total Water requirement in the Hatgacha-Jethia Black Stone mining is estimated to be 15 m³ /day. For dust suppression peak water demand shall be 10 m³ /day, plantation will consume 3 m³ /day whereas drinking water need along with cleaning & washing at work place is 2 m³ /day.

14. PP submitted that total 54560 saplings covering 34.1 Ha area will be planted over a span of 18 years which is 47.89% of total project area. PP submitted that plantation shall be developed in the following areas:

- Along the transportation roads inside and outside the ML area & Crusher area
- Along the ML area boundary
- On the bank of the perennial nala
- Around office, rest shed & parking places
- Around waste dump areas as well as in the dump slope
- Over the vacant and non mineralized area within the lease area
- On backfill areas and on mining upper benches /slope (where overburden material is not available for back filling) of mine pits after closure of the mine pit.

15. Since most of the project area lies on the plain land, saplings of 0.3m high will be planted in pits at 2.5m intervals along contours so that the tree density is about 1600 trees per ha. The plant species such as Sal, Siris, Neem, Debadaru, Amba, Bada Chakunda, Karanja, Subabool, Baheda, Harida, Panasa, Palas, Mahula, Jamu, Bahada, Sita Phal *etc.* shall be planted. In addition plantation on the mining benches shall be draught hardy in nature, with fast growth rate, glabrous/ pendulous leaves and with large crown volume to surface area of fluttering leaves. The species selected for the purpose are Neem (*Azadirachta indica*), Subabool (*Leucaena leucocephala*), Karanja (*Pongamia pinnata*), Gulmohar (*Delonix regia*), *etc.* PP submitted that the budget earmarked for the plantation shall be Rs 88 Lakhs.

16. PP submitted that out of the total lease area of 71.20 ha., 50.00 ha. is found to be categorized as one season cultivable land, 12.11 is waste /barren govt. land, 5.93ha. is under vegetation/ scrubs cover, 1.56 ha. is perennial stream /nala, 0.33 ha. is an un-metalled road and 1.27 ha. is abandoned quarry. No forest land is involved in the lease area.

17. PP submitted that no Schedule –I species is observed in the study area. The buffer zone of the lease area is not part of any National park, Wildlife Sanctuary, Biosphere Reserve, Tiger Reserve and Elephant Corridor.

18. PP has submitted District Survey Report as per the Ministry notification S.O. 3611(E) dated 25.07.2018 vide letter no. 87 MD/2C-614/18 dated 17.02.2020 issued by Directorate of Mines & Minerals, Government of West Bengal and Letter No. 104-CI/O/MIN/GEN-MIS/34/2016 dated 18.02.2020 from Department of Industry, Commerce & Enterprises, Gov. of West Bengal.

19. *The proposal was appraised in the EAC in its meeting held during May 29-30, 2019 wherein the committee deferred the proposal and inform the PP to*

*submit the District Survey Report as per S.O. 3611(E) dated 25.07.2018. PP vide letter no MDTC/P-32(II)/921 dated 19th September, 2019 submitted the letter vide letter no 410/-CI/O/MIN/GEN-MIS/34/2016 dated 30th July, 2019 by the Department of Industry, Commerce & Enterprises, Mines Branch, Govt. of West Bengal stating that the preparation of DSR for the districts of West Bengal is under process in the Department. Based on the discussion held and document submitted the committee deferred the proposals and sought the following details District Survey Report as per the Ministry notification S.O. 3611(E) dated 25.07.2018. **PP vide letter no MDTC/P-32/180 dated 24th February, 2020 has uploaded the requisite information on PARIVESH portal on 25th February, 2020 comprising of District Survey Report as per the Ministry notification S.O. 3611(E) dated 25.07.2018***

20. Primary Baseline data on Ambient Air Quality, Water Quality, Noise level, Soil, Flora & Fauna has been collected for Winter Season starting from December 2015 to February 2016 and an additional base line data was also generated for one month i.e. March 2019. Micro-meteorological data has also been collected from the site and compared with the information available from the secondary sources. The monitoring results of ambient air, surface water, soil, ambient noise and ground water for the month of December 2015 to February 2016 and for the month of March 2019 have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples.

21. The Project Proponent reported that the public hearing was conducted on 09.09.2016 at 11.30 AM in the premises of Bharkata G.P. Office, Dist. – Birbhum, West Bengal. The advertisement for public hearing was published in “The Telegraph” on 06.08.2016. The Public hearing was conducted under the chairmanship of Dr. Uma Sankar S, IAS, ADM, Birbhum. The issues raised during public hearing were also deliberated during the meeting which includes repairing of road, drinking water facility, construction of girls's hostel, installation of transformer etc. During the public hearing PP submitted WBMDTC is committed to spend Rs. 29 lakhs in a span of 3 years as follows: i) Total cost of Rs. 7.5 lakhs is allocated for drinking water facilities (construction of Borewell with overhead tank to supply drinking water), ii) Total cost of Rs. 8.0 lakhs is allocated for Health care facility (providing ambulance to address the emergency need), iii) Total cost of Rs. 10.5 lakhs is allocated for infrastructural development (installation of adequate no. of transformers for uninterrupted power supply to the locality; Construction of girls toilet at Jethia&Duarpahari school; Installation of solar lights to provide alternative source of energy to the tribal villages in the locality), iv) Total cost of Rs. 3.0 lakhs is allocated for skill development (providing vocational training to 10 villagers).

22. PP submitted that budget earmarked under Corporate Environmental Responsibility (CER) is Rs. 29 lakhs which will be spent in a span of 3 years as

follows: i) Total cost of Rs. 7.5 lakhs is allocated for drinking water facilities (construction of Borewell with overhead tank to supply drinking water), ii) Total cost of Rs. 8.0 lakhs is allocated for Health care facility (providing ambulance to address the emergency need), iii) Total cost of Rs. 10.5 lakhs is allocated for infrastructural development (installation of adequate no. of transformers for uninterrupted power supply to the locality; Construction of girls toilet at Jethia&Duarpahari school; Installation of solar lights to provide alternative source of energy to the tribal villages in the locality), iv) Total cost of Rs. 3.0 lakhs is allocated for skill development (providing vocational training to 10 villagers).

23. *The proposal was appraised in the EAC in its meeting held during May 29-30, 2019 wherein the committee deferred the proposal and inform the PP to submit requisite information. PP vide letter no MDTC/P-32(II)/921 dated 19th September, 2019 submitted the letter vide letter no 410/-CI/O/MIN/GEN-MIS/34/2016 dated 30th July, 2019 by the Department of Industry, Commerce & Enterprises, Mines Branch, Govt. of West Bengal some information. Based on the discussion held and document submitted the committee deferred the proposals and asked PP to revise the CER budget as per the provisions of OM No. F. No. 22-65/2017-IA-III dated 01 May 2018.*

PP vide letter no MDTC/P-32/180 dated 24th February, 2020 has uploaded the requisite information on PARIVESH portal on 25th February, 2020 comprising of CER budget as per the provisions of OM No. F. No. 22-65/2017-IA-III dated 01 May 2018.

24. PP submitted that no habitation is found within the proposed project area, hence the project involves no Displacement. However, due to the involvement of 50.00 ha. of single cropping agriculture land, a need based survey was undertaken for the project affected families. WBMDTCL is committed to provide the land compensation of Rs 26,000 /acre with annual escalation of Rs 2000 /annum and also provide one employment in the project for every 2 acres of land to be involved in the project. This type of arrangement is already practiced in other black stone projects of the region.

25. *EAC in its meeting held on 29-30 August, 2017, asked to submit need based survey of the project affected families. PP vide letter no MDTC/P-32(III)/1111 dated 23rd November, 2018 had submitted the information, Accordingly the same was considered in the EAC in its meeting held during 22-23, January, 2019 wherein the Committee deliberated on the information submitted by PP and noted that PP did not submit the requisite information as sought by the EAC's held during 29-30 August, 2017. The Committee therefore returned the proposal in the present form. PP vide letter no MDTC-P32(II)CAMP-BBS/1 dated 10th April, 2019 had submitted revised application online in the PARIVESH portal, accordingly, the proposal was appraised in the EAC in its meeting held during May 29-30, 2019 wherein the PP submitted the information.*

The committee observed that PP/Consultant did not submit the required documents as sought by the EAC in earlier meeting. Therefore, the committee deferred the proposal and informed the PP to submit need based survey of the project affected families. PP vide letter no MDTC/P-32(II)/921 dated 19th September, 2019 submitted the need based report verified and agreed by the Office of the Sub Divisional Officer, Suri(Sadar) Birbhum, Government of West Bengal Memo no 1183(I)/s dated 02.09.2019.

26. The Project Proponent submitted that the budget earmarked for Environmental Management Plan (EMP) shall be ₹180.0 Lakh (Capital) & ₹44.0 Lakh (recurring/annum) which includes i) Rs 42.0 Lakh (Capital) & Rs 10 Lakh (recurring) for Air Pollution Control, ii) Rs 22.0 Lakh (Capital) & Rs 4 Lakh (recurring) for Water Pollution Control, iii) Rs 6.0 Lakh (Capital) & Rs 2.0 Lakh (recurring) for Noise Pollution Control, iv) Rs 8.0 Lakh (Capital) & Rs 7.0 Lakh (recurring) for Environmental Monitoring and Management, v) Rs 14.0 Lakh (Capital) & Rs 8.0 Lakh (recurring) for Occupational Health vi) Rs 88.0 Lakh (Capital) & Rs 13.0 Lakh (recurring) for Green belt Development and Maintenance.

27. *EAC in its meeting held on 29-30 August, 2017, asked to submit Mitigation Plan to reduce the amount of dust to be generated from the crusher. PP vide letter no MDTC/P-32(III)/1111 dated 23rd November, 2018 had submitted the information, Accordingly the same was considered in the EAC in its meeting held during 22-23, January, 2019 wherein the Committee deliberated on the information submitted by PP and noted that PP did not submit the requisite information as sought by the EAC's held during 29-30 August, 2017. The Committee therefore returned the proposal in the present form. PP vide letter no MDTC-P32(II)CAMP-BBS/1 dated 10th April, 2019 had submitted revised application online in the PARIVESH portal, accordingly, the proposal was appraised in the EAC in its meeting held during May 29-30, 2019 wherein the PP submitted the information. The committee observed that PP/Consultant did not submit the required documents as sought by the EAC in earlier meeting. Therefore, the committee deferred the proposal and informed the PP to submit Cumulative impact study of for the dust generation from mine and crusher with suggested mitigation measures to reduce the amount of dust. PP vide letter no MDTC/P-32(II)/921 dated 19th September, 2019 submitted PP submitted the detailed Impact and imitative measures for the dust generation from mine and crusher.*

28. PP submitted that Occupational health and safety is very closely related to productivity and good employer-employee relationship. The main factors of occupational health in mines are fugitive dust, noise, vibration and ergonomic problem. Safety of employees and maintenance of mining equipment is to be taken care of as per the Mine Regulations, 1961 and Circulars of DGMS. To avoid any adverse effects on the health of workers due to dust, heat, noise and vibration, sufficient measures have been proposed below. These include:

- Provision of rest shelters for mine workers with amenities like drinking water, toilets, etc.;
- Provision of personnel protection devices for the workers;
- Rotation of workers exposed to high noise areas;
- First-aid facilities.

29. Occupational Health Survey of the employees will be carried out at regular intervals as per the directives of Director General Mine Safety. Safety of employees and maintenance of mining equipment is to be taken care of as per the Mine Regulations, 1961 and Circulars of DGMS. Accidents take place due to unsafe acts or unsafe conditions. The unsafe acts can be avoided by imparting proper training to workmen & by circulating SOP and SMP among them where as unsafe conditions can avoided by proper designing of work place, proper selection of equipment, proper maintenance of equipment, proper housekeeping etc. Following mitigation measures are to be taken in general to avoid accidents in Mines;

- All safety precautions and provisions of Mine Act,1955, Metalliferous Mines Regulation, 1961 and Mines Rules,1955 will be strictly followed during mining operations;
- Safety appliances such as safety boot, helmets, goggles etc. will be provided to the employees and regular check for their use will be conducted;
- Entry of unauthorized persons will be prohibited;
- Fire fighting and first-aid provisions in the mines office and mining area;
- Training and refresher courses for all the employees working in hazardous premises; Under Mines rules all employees of mines shall have to undergo the training at a regular interval;
- Working of mine, as per approved plans and regularly updating the mine plans;
- Cleaning of mine faces will be regularly done;
- Suppression of dust on the haulage roads;
- Regular maintenance and testing of all mining equipment as per manufacturer's guidelines will be done;

- Increasing the awareness of safety and disaster through competitions, posters and other similar drives.

The budget earmarked for Occupational Health is Rs 14.0 Lakh (Capital) & Rs 8.0 Lakh (recurring).

30. EAC in its meeting held on 29-30 August, 2017, asked to submit i) Occupational Health and Safety Plan & ii) Hazard Identification and Risk Assessment Plan. PP vide letter no MDTC/P-32(III)/1111 dated 23rd November, 2018 had submitted the information, Accordingly the same was considered in the EAC in its meeting held during 22-23, January, 2019 wherein the Committee deliberated on the information submitted by PP and noted that PP did not submit the requisite information as sought by the EAC's held during 29-30 August, 2017. The Committee therefore returned the proposal in the present form. PP vide letter no MDTC-P32(II)CAMP-BBS/1 dated 10th April, 2019 had submitted revised application online in the PARIVESH portal, accordingly, the proposal was appraised in the EAC in its meeting held during May 29-30, 2019 wherein the PP submitted the information. The committee observed that PP/Consultant did not submit the required documents as sought by the EAC in earlier meeting. Therefore, the committee deferred the proposal and informed the PP to submit i) Occupational health survey and dust surveillance plan and its mitigation measurements plan and ii) Hazard Identification and Risk Assessment Plan. PP vide letter no MDTC/P-32(II)/921 dated 19th September, 2019 submitted the Health Survey in and around the Project Area. PP also submitted the dust surveillance Plan along with the mitigation plan. ii) PP submitted the Hazard Identification and Risk Assessment Plan for the mine.

31. PP submitted an undertaking by the way of an affidavit bearing certificate No 35AB132814 dated 09.09.2019 to comply with all the statutory requirement and common cause judgment dated 02.08.2017. PP also submitted an undertaking dated 12.04.2019 that data and information given in the application, enclosure and other documents are true to best of his knowledge and belief and PP is aware that if any part of data or information submitted is found to be false or misleading at any stage the project will be rejected and clearance given if any will be revoked at his risk and cost.

The proposal was appraised in the EAC in its meeting held during May 29-30, 2019 wherein the committee deferred the proposal and inform the PP to submit 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. PP vide letter no MDTC/P-32(II)/921 dated 19th September, 2019 submitted the Affidavit no 35AB 132814 dated 06.03.2019 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.

32. Project Proponent submitted that the total project cost shall be ₹14.36 Crore and shall give direct employment to 102 persons.

33. The EAC has deliberated on the reply to the EDS submitted and verified that the DSR has been available on the website of the District Mining authorities. Project proponent has confirmed that there is no R&R involved in the project. After detailed deliberations, the committee recommended for grant of prior environmental clearance subject to the following specific conditions: -

1. Mist spray arrangement shall be made at all the crushing and transfer points. PP should also provide duct hoods at all dust generating points including crusher & transfer points along with Bag filter.
2. Safety distance of 60 m shall be provided either side of the bank of the Nallah and embankments shall be provided more than 1.5 m above the HFL, plantation with native and broad leaved species in the first two years of the commencement of mining operations. The firm shall also carry out the vibration studies in next 3 months to ensure that the vibrations resulting from the blasting and other mining operations don't affect the structural stability of the channel and share a copy of the same with concerned authority of the irrigation channel in the state.
3. The plantation with native and broad leaved species total 54560 saplings covering 34.1 Ha area will be planted over a span of 18 years which is 47.89% of total project area in the areas inter alia including for 10 m width all along the ML area; all along the transportation roads inside and outside the ML area & Crusher area; On the bank of the perennial nala; around office, rest shed & parking places; around waste dump areas as well as in the dump slope; over the vacant and non mineralized area within the lease area; and on backfill areas and on mining upper benches /slope (where overburden material is not available for back filling) of mine pits after closure of the mine pit.
4. The budget earmarked for Occupational Health is Rs 14.0 Lakh (Capital) & Rs 8.0 Lakh (recurring). 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.

5. As committed by the Project Proponent that the budget shall be earmarked for Environmental Management Plan (EMP) of ₹180.0 Lakh (Capital) & ₹44.0 Lakh (recurring/annum) which includes i) Rs 42.0 Lakh (Capital) & Rs 10 Lakh (recurring) for Air Pollution Control, ii) Rs 22.0 Lakh (Capital) & Rs 4 Lakh (recurring) for Water Pollution Control, iii) Rs 6.0 Lakh (Capital) & Rs 2.0 Lakh (recurring) for Noise Pollution Control, iv) Rs 8.0 Lakh (Capital) & Rs 7.0 Lakh (recurring) for Environmental Monitoring and Management, v) Rs 14.0 Lakh (Capital) & Rs 8.0 Lakh (recurring) for Occupational Health vi) Rs 88.0 Lakh (Capital) & Rs 13.0 Lakh (recurring) for Green belt Development and Maintenance. 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.
6. Personnel Protective Equipment (PPE) shall provide to all the personnel engaged at crusher, transfer points and other potential dust generating sources.
7. Regular surveillance on Silicosis shall be carried through regular occupational health checkup of 1/3 of the persons every year.
8. No ground water intersection shall be made without prior approval from CGWA
9. Controlled blasting shall be carried using the NONELs and fly rock control measures.
10. Garland drain of adequate cross section shall be made all along the quarry area and measures shall be taken to avoid the erosion and contamination of the
11. The project proponent shall explore the possibility of utilization of the waste such as stone chips, kankar, morrum, etc., for economic use such as road construction, construction material, etc
12. All the waste left out shall be backfilled and reclaimed with the top soil and plantation shall be carried including grasses.

13. An amount of Rs. 29 Lakhs allocated for the CER shall be spent within 3 years for the activities such as drinking water supply, development of health care facilities, green belt development outside the mining lease and for other concerns raised during the public hearing.

2.2 The proposal of M/s. Rajasthan State Mines & Minerals Limited is for Amendment in Environmental Clearance granted vide letter no. 11015/456/2008-IA. II (M) dated 05.08.2010 for reducing Gypsum production capacity from 2 Lac TPA to 1 Lac TPA and increasing the life of mines in EC granted for Bhurasar Gypsum Mining Project of M/s. RSSML. The mine lease area of 280.50 ha is located near village Bharusar, Tehsil- Kolayat, District-Bikaner, Rajasthan.

[IA/RJ/MIN/142882/2020; J-11015/456/2008-IA. II (M)]

1 The proposal of M/s. Rajasthan State Mines & Minerals Limited is for Amendment in Environmental Clearance granted vide letter no. 11015/456/2008-IA. II (M) dated 05.08.2010 for reducing Gypsum production capacity from 2 Lac TPA to 1 Lac TPA and increasing the life of mines in EC granted for Bhurasar Gypsum Mining Project of M/s. RSSML.

2. D. S. Acharya, Sr. Manager (Geology), RSMML, BIKANER, through the e-mail dated 17th April, 2020 has informed that due to lockdown they could not attend the meeting and requested to consider the proposal in the next meeting.

3. Keeping in view of the request of the PP, the committee agreed to defer the proposal. Therefore, the proposal is deferred as PP did not attend the meeting.

2.3 Mining of Beach Sand Minerals viz: Ilmenite, Rutile, Zircon, Sillimanite, Zirflor and brown Ilmenite with production capacity of 2,37,150 TPA by M/s. Indian Rare Earths Limited, located at Chavara, Alappad, Panmana and Ayaneivelikulangara villages of Kollam District, Kerala - Proposal for Amendment in Environmental Clearance granted vide letter No. 11-36/2008-IA.III dated 01.03.2011 w.r.t. specific condition (iii) for the buffer zone along the canal - regarding

[IA/KL/MIN/124785/2019; 11-36/2008-IA.III]

1. The proposal is for Amendment in Environmental Clearance granted to M/s. Indian Rare Earths Limited for mining of Beach Sand Minerals viz: ilmenite, Rutile, Zircon, Sillimanite, zirflor and brown ilmenite with production capacity of 2,37,150 TPA, located at Chavara, Alappad, Panmana and

Ayaneivelikulangara villages of Kollam District, Kerala in the mine lease area of 180 ha vide letter No. 11-36/2008-IA.III dated 01.03.2011 w.r.t. specific condition (iii) for the buffer zone along the canal. The said EC was granted. The latitudes and longitudes of the mine lease area lies between 09°00'55.97" to 09°02'3.80" N, 76° 31'17.19" to 76° 30'29.90"E.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category A or Activity 1(a) as the mining lease area is greater than 100 ha.

3. PP has submitted that the total mining lease area of 180 ha includes 132 ha of private agriculture land and homestead and 48 ha Government land including canal and lake. The Govt. of Kerala, vide letter no. G.O (Rt.) No. 746/07/ID, dated 08/06/07 granted lease to M/s IREL for the period of 20 years and the lease has been executed on 07.06.2011 for the term of 20 years.

4. PP submitted that the total mine lease area of project is 180 ha which comprises of CRZ IA, CRZ IB, CRZ III and CRZ IV areas. PP also submitted the recommendation from Kerala Coastal Zone Management Authority (KCZMA) vide letter no: 2933/A1/2018/KCZMA dated 22.10.2018. The KCZMA letter mentioned that the *"KCZMA in its 96th meeting vide agenda no.96.03.14 discussed the matter in detail and decided to recommend the proposal of M/s Indian Rare Earth Limited to Ministry of Environment, Forest and Climate Change for considering the CRZ clearance for mining of heavy mineral sand subject to the condition that no mechanical mining will be allowed in CRZ IB. In the circumstance, the above proposal of Indian Rare Earth Limited, Chavara, Kollam is forwarded for your consideration subject to the condition that no mechanical mining will be allowed in CRZ IB."*

5. The modified mining plan with progressive mine closure plan in respect of NK Block IV EE Ilmenite Mine over an extent of 180 ha was approved by Department of Atomic Energy, Atomic Minerals Directorate for Exploration and Research, Government of India, Hyderabad vide letter no. AMD/MRG/IREL-Chavara/MMP/180 Ha dated 15th November 2018. The Modified Mining Plan and Progressive Mine Closure Plan is approved in respect of minerals such as Ilmenite, Rutile, Zircon, Monazite, Leucoxene and Silimanite, respectively.

6. The environmental clearance was initially granted to M/s. Indian Rare Earths Limited for mining of Beach Sand Minerals viz: ilmenite, Rutile, Zircon, Sillimanite, Zircon and brown ilmenite with production capacity of 2,37,150 TPA, located at Chavara, Alappad, Panmana and Ayaneivelikulangara villages of Kollam District, Kerala in the mine lease area of 180 ha. vide letter No. 11-36/2008-IA.III dated 01.03.2011.

7. PP has submitted that they had earlier applied for consideration of EC vide proposal No. IA/KL/MIN/85725/2008 for Mining of beach sand minerals with

enhancement in production capacity from 2, 37,150 TPA to 7, 50,000 TPA by M/s. Indian Rare Earths Limited in the mine lease area of 180 ha located at Alappad, Panmana and Ayanivelikulangara villages in Karunagapally Taluk, Kollam, Kerala. The proposal was discussed by EAC in its meeting held during 27-28th June, 2019.

8. PP had submitted that the proposal for ToR was considered in the EAC meeting held during 24-26 June 2015 and the ToR was granted by Ministry vide letter No. J-11015/227/2015/IA-II dated 11.08.2015 for undertaking detailed EIA study and it was valid up to 10.08.2018. Followed by a proposal for extension of ToR validity was considered in the EAC meeting held during 22-23 January 2019 and the ToR validity was extended for a period of one year from 11.08.2018 to 10.08.2019 vide letter no. J-11015/227/2015/IA-II dated 12.02.2019. The PP submitted the EIA/EMP Report to Ministry for seeking environmental clearance and the proposal was considered in the EAC meeting held 27-28th June, 2019.

9. PP submitted the past production details from Director of Mining and Geology, Government of Kerala vide letter no. nil dated 20.06.2019 which revealed that the PP has mined out within the EC capacity. Furthermore, PP submitted the affidavit dated 19.06.2019 in compliance of Ministry's OM dated 30.05.2018 in respect of the order of Hon'ble of Supreme Court dated 02.8.2017 in W.P.(C) No. 114/2014. PP submitted the compliance report of EC dated 01.03.2011 from MoEF&CC RO, Bangalore vide letter no. EP/12.1/2010-11/26/Kerala dated nil and the Committee discussed the same.

10. PP submitted that the public hearing was conducted on 22.05.2018 at F.K.M. Auditorium, Chavara under the Chairmanship of Shri. K. R. Manikandan, ADM, Kollam. PP presented the concerns raised during public hearing and their corresponding mitigation measures. PP further submitted that the mining method is open cast method of inland mining by using dredge or excavators except in CRZ IB. Inland mining will be done by using dredge. The dredge has a working length of 30 meters and width of 14m. The separation is through physical process and no chemicals are used. The semi mechanized mining includes refilling of mined area using tailings from pre concentration plant and mineral separation plant. PP further submitted that the TS canal passes in between the proposed mining block. The deposit covers an area of 180 hectares with Neendakara at the south and Kayamkulam in the north.

11. PP submitted that the total cost of project is 09 Crores. The funds allocated for environment management (capital) is 0.46 crores, for CER 0.09 Crores and for environment management plan (recurring per annum) is 1.13 Crores, respectively. PP further submitted that no litigation is pending against this proposal.

12. Based on the presentation made by PP and the discussion held during the EAC Meeting held on 27-28th June, 2019, the Committee made the following observations and returned the proposal in present form.

(i). *PP submitted the resettlement and rehabilitation plans which are generic and not adequate. PP needs to submit the revised R & R plan with budget plans for year wise accession of lease and displacement (i.e. number of people, houses, cattle and cultivation land etc.) involved.*

(ii). *PP presented the water quality data, however, the details of radioactive elements present in the water are not provided. PP needs to submit the water quality data for potential presence of radioactive elements and minerals present in the water.*

(iii). *The specific condition (iii) of EC dated 01.03.2011 mentioned that the “50 mts all along the canal shall be maintained as buffer and shall not disturb at all maintained”. The compliance report mentioned that the “PP is carrying out mining very close to the canal and not maintain 50 m buffer as per EC. However, PP informed that Inland Waterways Authority of India has conveyed No Objection to dredge at the canal. PP should get the condition amended”. The Committee mentioned that there is a non-compliance reported by RO MoEF&CC and the PP has put their contrary view highlighting the ambiguity in understanding of dredging and mining. Accordingly, the Committee advised the Ministry to verify the factual situation and take appropriate action accordingly.*

(iv). *PP submitted the air quality data for PM10, SOx and NOx but not provided the PM2.5 values. PP needs to redo the air quality modeling and submit the revised data.*

(v). *In Public hearing issues, it is mentioned that salt intrusion in Vellanathuruthu as a result of mining has adversely affected farming and also caused drinking water scarcity. PP submitted that detailed hydrogeology survey has been conducted; however, the analysis results are generic and not adequate. Furthermore, the PP not submitted the details of laboratory conducted the hydrogeological study and their valid accreditation certificate. PP needs to submit the revised final hydrogeological study report and the valid accreditation certificate for the laboratory.*

(vi). *PP informed to the Committee that the company name has been changed from Indian Rare Earth Limited to IREL (India) Limited on 15.03.2019, but, there is no change in ownership of the company. Accordingly, the Committee suggested that the PP may submit fresh application for grant of EC in the name of IREL (India) Limited. The Committee also advised the Ministry to examine the case appropriately in respect of required documents for amendment in existing EC.*

(vii). PP submitted that the land required for mining activity is not completely acquired by IREL. PP needs to submit the status of the land acquired and time needed to acquire remaining land.

(viii). PP submitted that the construction of seawalls on regular basis by the State Irrigation Department/IREL is already in practice. PP needs to submit the details of constructions made and their type with budgetary provision allocated.

(ix). PP needs to comply to all conditions stipulated by Kerala Coastal Management Authority vide their letter No.2933/A1/2018/KCZMA dated 22.10.2018

(x). A comprehensive EMP study shall be conducted for migratory birds, if any, present in the mine lease area.

(xi). PP requires to submit the detailed marine and estuarine environment studies and coastal erosion in buffer zone of the study and suggested mitigation measures therein.

(xii). PP needs to submit land breakage details of the total mine lease area.

(xiii). PP need to monitor the ground water quality and submit the results of the same.

(xiv). PP submitted inadequate information on the Form-2 of the PARIVESH Portal.

(xv). PP should submit the past production details as per the annexure-III of agenda of this EAC meeting.

In addition to above,

(i) PP had informed the Committee that the company name has been changed from Indian Rare Earth Limited to IREL (India) Limited on 15.03.2019, but, there is no change in ownership of the company. Accordingly, the Committee suggested that the PP may submit fresh application for grant of EC in the name of IREL (India) Limited. The Committee also advised the Ministry to examine the case appropriately in respect of required documents for amendment in existing EC.

(ii) The specific condition (iii) of EC dated 01.03.2011 mentioned that "50 meter all along the canal shall be maintained as buffer and shall not be disturb at all maintained". The compliance report mentioned that the "PP is carrying out mining very close to the canal and has not maintain 50meter buffer as per EC. However, PP informed that Inland Waterways Authority of India has conveyed No Objection to dredge the canal. PP should get the condition amended". The Committee mentioned that there is noncompliance reported by RO MoEF&CC and the PP has put their contrary view highlighting the ambiguity in understanding of

dredging and mining. Accordingly, the Committee advised the Ministry to verify the factual situation and take appropriate action accordingly.

13. The proposal was again deliberated in the EAC meeting held during 30th – 31st July, 2019, wherein, PP made submission on their R&R plan for the affected households and families situated in the proposed mine lease area. The details of model adopted for R&R plan was deliberated with special emphasis on the rehabilitation model, the benefit sharing model till the life of mine. The committee observed that the proposed model, which is also in implementation, is very conducive and social friendly without much compromise with the livelihood and living condition of the affected populace. To explore the replication potential of the adopted model in other parts of Country, the committee felt to make a field visit to the site to have interaction with the affected family and the observe the limitation and benefits of the model.

14. PP informed that there is only change in name of the company and the management remains the same. However, as per suggestion of earlier meeting of EAC, necessary application for change in name of the company in existing EC and ToR has been made and the same is under process at the MoEF&CC end. Therefore, PP submitted that EAC may consider the proposal for grant of EC for expansion, subjected to the change in name in the EC and ToR letter by Ministry.

15. Based on the PP's submission, the proposal was placed in 7th EAC Meeting held during July 30-31, 2019 EAC meeting and the PP presented response to the questions raised during 6th EAC meeting. The Committee deliberated on the presentation and submission made by the PP and deferred the proposal for further consideration after the following is submitted by PP:

(i). The Committee observed that the PP submitted the fresh EC application in the old name, such as Indian Rare Earth Limited. PP responded that there is no option for change in the name from Indian Rare Earth Limited to IREL (India) Limited. Thus, the Committee suggested the Ministry to look into matter. However, the Committee considered the application in present form for consideration.

(ii). PP should also submit application for amendment in the existing EC specific conditions (iii), to overcome the ambiguity arising due to recovery of minerals from waste material of dredging material carried out by IWAI, and in compliance to the observation reported by RO MoEF&CC in their compliance report.

16. Additionally, the committee recommended a field visit to the project site by team comprising of EAC members and representatives from Ministry, with due information to the PP, during mutually consented period of visit, preferably in September 2019, and submit a report to Chairman on the potential of replication of the R&R model in other projects.

17. A letter was also issued by the Ministry vide letter no. J-11015/227/2015-IA-II (M) dated 14.10.2019 to PP.

18. Present Application: PP has submitted that in accordance with the ADS sought during the EAC held during 30th – 31st July, 2019, IREL is submitting an application for amendment in specific condition (iii) for the buffer zone along the canal of the existing EC.

19. IREL proposed to amend the condition regarding buffer zone along canal in existing EC due to the following reasons: -

- i. *Our Inland deposits are placer deposits which have originated from the weathering of Archean crystalline rocks Western Ghats and are deposited millions of year back all along the coast.*
- ii. *The deposit is rich in Atomic Minerals are an asset and resource is having strategic importance for development of our nation, with regard to power security*
- iii. *Our process is similar to harvesting of minerals without involving drilling and blasting because mineral are already naturally available in liberated form (Loose sand soil) and do not involve any chemical hazardous material our Mining is wet process with no dust pollution. Periodical monitoring is being done for air and water quality and there is no significant change observed. Also Hazardous waste analysis (TCLP analysis) is done for pre and post Mining area for the presence of Hazardous materials as per constituents of Schedule II of Hazardous & other waste (Management & trans boundary Management) Rules, 2015 and there all the parameters are within limits.*
- iv. *The permission from Inland waterways Authority of India is granted to dredge and recover the mineral sand from canal (National waterways -3 which is under IWAI). The dredging also facilitates the navigation through canal.*
- v. *The area observed by RO, MoEF&CC, Bangalore in their compliance report is barren land with sandy soil with isolated no-yielding coconut plantation. No rare or endangered species is observed in our terrestrial and ecological survey.*
- vi. *The average width of the available deposit is limited, even at some locations, it is only 120 meters leaving a barrier of 50 metre from the canal while undertaking Mining will lead to loss of huge quantity of Atomic Minerals. More over the average depth of Mining is only 8 metre without any overburden. Hence the conditions like 50 metre barrier for buffer zone, which may be applicable for large open cast Mines having deposits of considerable depth of Mining with overburden, need not be made applicable for our case. Please note that these Atomic Mineral deposits are not available outside CRZ area and is of strategic importance to the Nation's nuclear programme.*

- vii. *IREL is Mining Atomic Mineral (Beach sand Minerals) and as per National Mineral Policy, 2019, Clause 6.9, Beach Sand Minerals "Efforts will be made to encourage extraction of the replenishable deposits of beach sand minerals for improved economic growth by ensuring coordination between the different agencies viz., State Governments, Ministry of Environment, Forests & climate change, Indian Bureau of Mines, Department of Atomic Energy, Atomic Minerals Directorate for Exploration and Research, and Department of customs and Excise etc. so that regulation of mining of beach sand minerals is in conformity with the mining and other related laws, while also conforming to national security requirements and established international protocols"*
- viii. *Mining of these atomic minerals are permitted within the coastal Regulation Zone notification under the section 3(x)(iii)(c), 4(ii)(g), para 8 I (ii) (h) of the CRZ notification 2011 as amended in 2017.*
- ix. *Surface mining usually renders the land unsuitable for other uses unless it is restored or rehabilitated. The simultaneous refilling of the mine is in progression with Mining. After the recovery of Heavy minerals, the reject sand is used for refilling the mined out area. As the back filling is integrated into the mining process, the excavated land will be subsequently reclaimed and the ground surface of the reclaimed land will be brought back to the contours matching with the surrounding topography. The reclamation will improve the overall landscape considerably in a phased manner by green belt development and ponds for water conservation and ground water recharge, to improve the water quality / quantity. It will also be a sustainable source for water, availing infiltration of water where ever feasible.*
- x. *Post project monitoring system will be setup , which will ensure that the mitigation measures planned by way of environmental protection, function effectively during the entire period of mining and reclamation These include periodic topography survey, Measures for coastal protection & it's monitoring, Water resource management, Socio economic development, Green belt development, occupational health and biological monitoring and Radiation exposure monitoring. In addition to this, a separate Environmental Monitoring Committee (EMC) is recommended comprising senior officers, external experts and representative of the Alappad panchayat to ensure implementation of recommendations as per the EMP.*
- xi. *IREL has obtained surface rights over an area of about 600 cents along the 50 metre barrier of the canal. we have invested an amount of approx. Rs 9 Crore only for obtaining valuable strategic minerals. The land has to be return back to the owners after the completion of Mining, refitting as per R & R plan. If we are unable to do Mining, we will be in a position that we will not be able to comply with our commitment to Land owners and revenue authorities.*

- xii. *IREL has submitted undertaking to RO, MoEF&CC, Bangalore on 07.03 2019 to comply with specific conditions (iii) stipulated in EC issued by MoEF&CC, New Delhi for developing green belt and mangroves after mining and refilling and restoring to its original topography of the area (buffer zone) along the canal.*

Deliberations of the EAC:

20. During the deliberations, the project proponent has submitted the following vide letter dated 20th April, 2020:-

- i. *By leaving a barrier of 50 mts along the canal on both sides, we will not be able to exploit an area of around 20 Ha , by which a quantity around 27,00,000 tonnes of raw sand and in turn Heavy mineral quantity of around 4,00,000 tonnes will be left unmined which will results in a loss of revenue of around Rs.1200 crores to the exchequer during the lease period. A sketch showing 50 metre barrier along the canal in the Mining lease area is enclosed.*
- ii. *By carrying out mining in this area will enhance the life of the mine to a period of around 4 years considering the proposed enhancement of ROM to 7,50,000 tpa (proposal for enhancement of ROM is separately submitted and under active consideration of EAC (Non Coal) , MoEF &CC).*
- iii. *If this area of the deposit is left unmined , the minerals will become sterile and can never be harvested in future .*
- iv. *By carrying out the mining , the monazite mineral is removed thus making the mined out area radiation free , if the area unmined , it will remain as radiation zone .*
- v. *Moreover AMD has made an extensive exploration and arrived the total reserve. If we are not fully utilising the reserves there could be CAG audit observations on Mineral Conservation of atomic minerals as well as revenue loss to the exchequer.*
- vi. *In the global scenario, China is a leading supplier with respect to rare earths , it is a known fact that it is restricting its supply to other countries . In order to have a self sufficiency in this field, the winning of the minerals available in the country to its fullest extent is required. The real importance of rare earths as critical elements was brought out in the limelight by NITIAYOG which was formed in 2015.*
- vii. *Even though the EC was granted in 2011 with this condition, IREL commenced the mining operations in the year 2016 after finalising and obtaining surface rights in the area close to the sea and the mining was*

progressing towards canal. When we were approaching towards the canal , we proposed for the amendments in the condition to ensure the conservation of minerals with sustainable mining.

viii. The TS canal is a man made water channel connecting the back waters (kayal) for the purpose of navigation of small boats. The back waters are connected to the sea. A portion of TS canal passes through the Block IV EE and IREL proposes to mine by using Dredger / HEMM – tipper combination and the mining will be carried out in an area of 100 m x 100 m at any point of time near canal. A safe barrier of 3 mts will suffice the safety of banks of canal since no drilling blasting is involved , no hazardous chemicals are used for mining. A marine ecological survey was carried out during May 2017 and three stations were monitored along the TS Canal and results were included in the report. The results showed normal estuarine productivity and faunal and floral distribution along the three stations investigated, which shows normal ecological status of the TS canal throughout. The proposed mining on either side of the TS canal leaving a barrier of 3 m may result in following ecological impacts:

- a. Harvesting of mineral sand on land and riparian area by excavation/ dredging*
- b. Removal of both riparian vegetation and fauna*
- c. Temporary weakening of canal bank*
- d. No significant siltation/sedimentation to aquatic ecosystem there by no water quality alterations*
- e. No water discharge to TS Canal*
- f. Permissible activity under CRZ regulations for atomic minerals.*

ix. To reduce the extent of impact due to mining activity the following mitigation measures are suggested:-

- a. Mining shall be carried out after leaving a barrier of 3 m on both sides of canal bank (riparian area) on both sides to avoid distraction of fragile riparian ecology and river bank weakening.*
- b. After refilling and levelling, local varieties of plantation will be ensured.*
- c. The mining and refilling will be done simultaneously and there will not be of more than 100 mts at a time between the mining phase and refilling area along the length of the canal. Hence the*

canal bank will be strengthened and consolidated by simultaneous refilling .

d. No Water will be discharged to canal to ensure the turbidity of the canal is not altered. Periodical monitoring of water turbidity in TS canal during Mining operations will be done. The multiplication of natural or anthropogenic pressures on the turbidity of water will be mitigated by stopping sand mining during bad weather.

e. Proper distance will be maintained between active Mining area and the area where the ecological restoration is taken up

x. Mining of atomic minerals is a permissible activity under CRZ regulations

21. After detailed deliberations on the submissions of the project proponent, the committee recommended for amendment in environmental clearance for mining along the canal by leaving 10 m safety zone till the study conducted by the PP on impact on breeding of aquatic fauna, as the canal is sea backwater, through a reputed organization. Further the committee is of the opinion that horizontal hydrostatic force at 3 m depth is 2943 KN. The horizontal force at 3 m from the sand is 11772 KN which is more than the hydrostatic pressure. Taking the factor of safety as 3, a buffer zone of 10 m shall be left to protect the canal. The PP may obtain further amendment based on the outcome of the study on impact on fauna and safety of canal. Till such time, the mining is allowed up to 10 m from the either bank of the canal subject to conditions given below:-

- i. Mining shall be carried out after leaving a barrier of 10 m on both sides of the canal bank (riparian area) on both sides to avoid distraction of fragile riparian ecology and river bank weakening.*
- ii. After refilling and levelling, plantation shall be carried with native and leguminous species.*
- iii. The mining and refilling will be done simultaneously and there shall not be gap of more than 100 m between the mining phase and refilling area along the length of the canal at any given point of time so as to strengthen and consolidate the canal bank by simultaneous refilling .*
- iv. No water shall be discharged to canal. Periodical monitoring of water turbidity in TS canal during mining operations shall be taken up. The multiplication of natural or anthropogenic pressures on the turbidity of water shall be mitigated by stopping sand mining during bad weather.*
- v. Proper distance shall be maintained between active Mining area and the area where the ecological restoration is taken up.*

2.4 Production of 2.3 Million TPA of Limestone with Total Excavation of 2.3797 MTPA (Limestone: 2.3 MTPA + Top Soil: 0.0797 MTPA) from Kowlapalli Limestone Mine (ML Area 556.938 Ha : Govt. Land- 37.13 Ha. & Private land 519.58 Ha.) of M/s Penna Cement Industries Limited, located at Kowlapalli Village, Peapully Mandal, Kurnool District, Andhra Pradesh

[IA/AP/MIN/143957/2020; J-11015/20/2020-IA.II(M)]

1. The Proposal of M/s Penna Cement Industries Limited is for production of 2.3 Million TPA of Limestone with Total Excavation of 2.3797 MTPA (Limestone: 2.3 MTPA + Top Soil: 0.0797 MTPA) from Kowlapalli Limestone Mine (ML Area 556.938 Ha: Govt. Land- 37.13 Ha. & Private land- 519.58 Ha.) located at Kowlapalli Village, Peapully Mandal, Kurnool District, Andhra Pradesh. The mine lease area falls between latitude 15°06'31.71" N to 15°08'14.52"N and longitude 77°55'33.49" E - 77°58'3.58" E and falls in seismic zone-II. The mine site is covered in Survey of India Topo Sheet no. 57 E/16.

2. The project falls under Schedule 1(a) of mining and is a Category- "A" project as per EIA notification 14th September 2006 (as amended) as the mining lease is more than 100 Ha.

3. PP previously applied for ToRon 20.09.2018 vide proposal No. IA/AP/MIN/79622/2018 and the proposal was considered in EAC meeting held during 23-24 Oct,2018 wherein EAC returned the proposal in present form due various short comings. The PP now applied online vide its proposal no. IA/AP/MIN/143957/2020 dated 20.02.2020 and submitted the Form-1, Pre-feasibility Report and the proposal is placed in EAC meeting held during 20-21 April, 2020.

Observation of EAC: *The Committee previously asked PP to submit i) Total excavation/annum {quantity of mineral, quantity of waste/reject, quantity of sub-grade mineral, quantity of top soil from the mining lease} in the Form – 1 and ii) The authorization of the person filling the Form-1 should be as per Ministry's O.M. No. J-11015/333/2009-IA.II (M) dated 25.02.2010, iii) Ensure that information submitted in the Form-1 & Pre-Feasibility Report (PFR) should not vary. PP should clearly mention the details of the manpower to be engaged for the project with their roles and responsibilities and iv) Benefits of the project to be mentioned in the PFR. PP now made the necessary corrections and provided information sought.*

4. PP submitted the Memo No. 5417/M.III (1)/2018 Dated 29.06.2018 issued by Govt. of Andhra Pradesh, Industries and Commerce (M-III) Department wherein it is proposed to grant of mining lease for limestone

over an area of 556.938 Ha to M/s Penna Cement Industries Limited for captive purpose.

Observation of EAC: The Committee observed that in the Memo No. 5417/M.III (1)/2018 Dated 29.06.2018 issued by Govt. of Andhra Pradesh, Industries and Commerce (M-III) Department is has mentioned that “ *M/s Penna Industries Ltd, Hyderabad is requested to submit the approved mining plan along with CFE & EC within a period of (6) months from the date of receipt of this memo, duly complying with UNFC norms through the Director of Mines & Geology, A.P., Vijayawada for consideration of their mining lease application. It they fail to submit the same further action will be taken based on the material available with the Government*” The Committee observed that six months’ time was expired on 28.12.2018 and as of now it’s not clear what action the state government has taken for non-submission of documents and whether the State Government is intended to extend the time period for submission of documents or not.

5. On deliberations of the committee it was observed that the LOI issued by the State Government was expired on 28.12.2018 Based on the information submitted and discussion held the Committee **deferred** the proposal till the time PP submits a letter from the State Government regarding its intended to grant mining lease for this project and to extend the time period for submission of documents as mentioned in Memo No. 5417/M.III (1)/2018 Dated 29.06.2018.

2.5 Production of 2.5 MTPA of iron ore from Vysanakere Iron Ore Mine (ML No: 2416; Area 354.71 Ha) located at Village Vysanakere, Taluka-Hosapete, DistBallari, Karnataka by M/s. MSPL Ltd - Consideration of ToR [under S.O. 1530(E) dated 6.04.2018]

[IA/KA/MIN/104298/2019; J-11015/308/2005-IA.II(M)]

1. The proposal of M/s. MSPL Ltd. is in pursuant to Ministry’s Notification S.O. 1530(E) dated 6.04.2018 for grant of ToR for production of 2.5 MTPA Iron Ore from Vysanakere Iron Ore Mine (ML No: 2416; Area 354.71 Ha) located at Village Vysanakere, Taluka-Hosapete, Dist-Ballari, Karnataka. The area falls in the Survey of India Toposheet No. 57 A/8 and is bounded by the Longitude: 76°22’40” to 76°24’36”; & Latitude: 15°11’30” to 15°13’00”.

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 in pursuant to Ministry’s Notification S.O. 1530(E) dated 6.04.2018 applied vide proposal No. IA/KA/MIN/75775/2018 dated 11.07.2018 i.e. before 5.10.2018 (last date for making application under 6.04.2018 notification). PP applied under Schedule 1(a) Mining of Minerals and submitted Form-1 & PFR. As the complete information was not uploaded EDS

was raised and the proposal was placed in EAC meeting held during 27-28th August 2019 wherein the deferred the proposal as there was some ambiguity in the receiving of the application within the time limit and Committee referred the matter to Ministry for verification on PP's claims for further consideration of proposal. After resolving the above issue and submission of document by PP the proposal is now placed in EAC meeting held during 20-21 April, 2020.

3. PP submitted that the original Mining Lease No: 1801 was granted to M/s. Mineral Sales Pvt. Ltd for a period of 20 years i.e. 14.11.1962 for exploiting iron ore and the same expired on 13.11.1982. Subsequently, the renewal of ML was applied in the prescribed time and renewal was granted for another 20 years in 1982 and the extended lease period expired on 13.11.2002. The second renewal was granted in the year 2002 for a period of Twenty years with effect from 14.11.2002 and is valid up to 13.11.2022. In the year 1998, the company became a Public Limited Company as M/s. MSPL Limited. PP submitted that the permission for diversion of Forest Land was granted vide Letter No: 8-179/91 FC dt. 04.04.1997 for the period of 10 years. Further, the first stage FC was granted by MoEF&CC vide Letter No: 8-97/2006-FC dt. 12.09.2006 and the second stage FC was granted vide letter no: 8-97/2006-FC dt. 08.03.2007 over an area of 350.78 Ha which includes the approach roads (347.22 Ha + 3.56 Ha).

Observation of EAC: The Committee observed that i) the Ministry has granted to EC to M/s. MSPL Ltd. vide letter no. J-11015/308/2005-IA.II (M) dated 07 April 2006 for enhancement of production of iron ore from 1.98 MTPA to 2.5 MTPA in the mine lease area of 347.22 ha under the provision of EIA Notification, 1994. But the application for ToR is now made for 354.71 Ha area. There is a difference of 7.49 Ha which is due to demarcation by CEC as reported by PP. PP also submitted that this area of 7.49 Ha shall be kept as area not to be utilized for mining activity.

PP submitted that revised area was also accepted by Department of Mines & Geology Govt. of Karnataka as their representative signed the Mahazar dated 16.07.2012. The Committee is of the view that State Government grant mining lease and as per lease deed the area is 347.22 Ha, in case there is any change in lease area due to demarcation than State Government should revise the mining lease deed as per applicable laws. The Committee is of the view that at the ToR Stage a letter from State Government is required to confirm the area of mining lease to be considered for grant of ToR.

PP submitted that the entire 354.71 Ha area is reserve forest but the forest clearance is only available for 350.78 Ha (347.22 Ha already broken area + 3.56 Ha for roads). The Committee is of the view that for consideration of the proposal PP needs to apply for forest clearance for the remaining area of 7.49 Ha.

4. The Production capacity as amended by the CEC appointed by the Hon'ble Supreme Court is 1.80 MTPA and the Scheme of Mining has been approved by Indian Bureau of Mines vide letter No: 279/143/90/BNG/1767 dt. 04.11.2016. PP reported that since 2007, Mining methodology is Fully Mechanized and is being carried out as per approved Mining Plan from IBM. Controlled Drilling and Blasting Operation technique has been adopted. PP submitted that there are three working blocks between 629 mRL to 810 mRL. The operation involves removing of overburden /waste material lying above the ore body by drilling and blasting. The ore is also removed similarly. The mine is worked three shifts round the clock. The water requirement on the project is calculated 430 KLD. The water is sourced partly from tube wells in the lease area and the balanced from purchased from outside sources. During the balance of lease period 20.60 MMT of excavation will be made out of which 11.60 MMT will be overburden / waste will be removed and disposed of on overburden dumps. The ore production will be 9.0 MMT.

Observation of EAC: The Committee is of the view that i) PP did not provide the complete details about number of crushers and its capacity. The detail of processing plant is also not provided and in the absence of the same it is difficult to ascertain whether the schedule 2(b) of EIA Notification 2006 is applicable for this project or not. In case it is applicable then PP needs to submit the revised Form-1 thereby apply under schedule 1(a) mining of mineral & 2(b) beneficiation. The material balance needs to be submitted and ii) the previous EC was granted for manual opencast mining whether mining has been carried out by manual method or mechanized, in case mechanized whether amendment/corrigendum in EC was obtained or not.

5. The total water requirement on the project is calculated 430 KLD. The water is sourced partly from tube wells in the lease area and the balanced from purchased from outside sources.

Observation of EAC: The Committee is of the view that as per EC Condition No (x) whether permission has been obtained from competent authority for withdrawal of ground water.

6. PP submitted past production details duly authenticated by DMG from 2009-10 to 2017-18 vide its letter No. DMG/DDH/ML/2018-19 dated 13.02.2019 wherein it has mentioned that past production details from 1993-94 to 2008-09 is not available with their office. The production in this period is well within the EC Capacity.

Observation of EAC: The Committee observed that PP has submitted an undertaking vide certificate No. IN-KA65787096348358R dated 1.08.2019 wherein inter-alia it has mentioned that "*I state that the above mine has been Categorized as "B" Category by the Hon'ble Supreme Court in its order dated 03.09.2012 in Writ Petition bearing W.P No. 562/2009*

(SamajParivartanSamudaya vs. Union of India and Others). 4. I state that the aforesaid mine is subject matter of W.P No. 562/2009 before the Hon'ble Supreme Court. I state that the order dated 02.08.2017 of the Hon'ble Supreme Court in W.P(C)No. 114/2014 is therefore, not applicable to the said mining lease”.

7. The Committee is of the view that taking action of the violation of Common Cause Order dated 2.08.2017 is under preview of State Government but it's important for this Committee to ensure that notifications and Office Memorandums issued by MoEF&CC is complied with. The affidavit submitted by PP is not as per Ministry's O.M No. 3-50/2017 -IA.III (Pt.) 30.05.2018 and PP needs to submit the revised affidavit.

8. The Committee also observed that PP did not submit the details as required in Annexure-III of agenda item to examine the proposal in light of S.O. 804(E) dated 14.03.2017 , complete past production details is also not submitted by PP. The Committee is of the view that PP should submit the information in Annexure-III along with supporting data/documents and justify why S.O. 804(E) dated 14.03.2017 is not applicable in the instant case.

9. Based on the information submitted by the PP the Committee **deferred** the proposal for want of following information:

- i) PP needs to submit a letter from State Government confirming the area of mining lease to be considered for this project after the demarcation by CEC and whether State Government is intended to execute the supplementary mining lease deed for the same or not.
- ii) PP needs to submit the forest clearance and application of the forest clearance made for the entire area as verified by the State Government including additional area of 7.49 Ha.
- iii) PP needs to provide the details of beneficiation plant if any installed inside the mining lease. If yes, whether permission for the same has been obtained. Is there any future proposal for installation of the same, If yes, then application should be made for schedule 1(a) mining of minerals and 2(b) beneficiation.
- iv) PP needs to provide the details of crusher viz. number & capacity already existing in the mining lease or proposed to be installed within the mining lease area.
- v) Material balance needs to be submitted clearly showing the amount of material to be mined, processed, crushed, dumped etc.
- vi) PP needs to submit the permission obtained from the competent authority for withdrawal of ground water from time to time.

- vii) Comparative of the figures viz. land use, water requirement, total excavation etc. granted in previous EC and proposed now.
- viii) It has observed that land use mentioned now, during the plan period and at conceptual stage there is reduction in afforestation area, reason for the same or revised proposal for the same needs to be submitted.
- ix) PP needs to submit an undertaking by the way of an affidavit for compliance of Common Cause Order dated 2.08.2017 and other statutory requirement in pursuant to Ministry's O.M No. 3-50/2017 -IA.III (Pt.) 30.05.2018. PP also needs to submit an affidavit that the project does not attract provision of S.O. 804(E) dated 14.03.2017.

2.6 Yepalamadhavaram Limestone Mine of M/s. My Home Industries Private Limited with production of Limestone: 0.66 MTPA and Top Soil: 0.007 MTPA (Total Excavation of 0.667 MTPA) over an area of 89.37 Ha, located at Yepalamadhavaram Village, Mellacheruvu Mandal, Suryapet District, Telangana State.

[IA/TG/MIN/99974/2019; J-11015/47/2019-IA-II (M)]

1. The Proposal of Yepalamadhavaram Limestone Mine of M/s MY HOME INDUSTRIES PRIVATE LIMITED with production of Limestone: 0.66 MTPA and Top Soil: 0.007 MTPA, Total Excavation of 0.667 MTPA over an area of 89.37 Ha. The mine lease is located at near Yepalamadhavaram Village, Mellacheruvu Mandal, Suryapet District, Telangana State. The Mine lease area lie between 16°46'47.70" to 16°47'23.00" North and 79°56'0.80" to 79°56'54.90" East. The Mine site is covered under the Survey of India Topo-Sheet no. 56P/13.

2. The proposed project falls under Category 'B' project as per MoEF&CC Notification, S.O. 3977(E) dated 14th August 2018. The mining lease is less than 100 Ha but the proposal is considered in the Ministry as SEIAA, Telangana was not operational.

3. The PP applied online vide its proposal no. IA/TG/MIN/99974/2019 dated 21.03.2019 and the proposal is placed in EAC meeting held on 23-24 April, 2019. Wherein the Committee deferred the proposal and is of the view that proposal may be considered after the submission of following documents: (a) View of State Forest department regarding identification and notification of the surrendered area as Forest land and after examining the applicability of the requirement of Forest Clearance in the instant case. (b) After examining the matter in light of Common Cause Judgment dated 2.08.2017 and S.O. 804(E) dated 14.03.2017 (c) Comparative of all the figures (waste, o.b., land use, water requirement, etc.) mentioned in the previous EC and what is proposed now, details of any modification/expansion/amendment/change of scope of

work/method of mining etc. if any carried out after grant of EC. PP vide letter Rel MHIPL/YLM/EC/2019-20 dated 20.02.2020 submitted the information in PARIVESH Portal on 20 Feb 2020, Accordingly the proposal was considered in the EAC in its Meeting held during April, 21-22, 2020

4. The PP submitted that the Mine has obtained EC under EIA Notification 1994 for the production of 0.66 MTPA in 121.408 Ha in the name of “My Home Cement Industries Limited” Vide Lr.No. J.11015/37/2002-IA.II(M) dated 12.03.2004. The Certified compliance obtained from Regional Office, MoEF&CC dated 22.10.2018. Now applied online for grant of TOR, in compliance to the Ministry’s Notification S.O. 1530(E) dated 6th April 2018.

5. The PP submitted that the Govt. of Andhra Pradesh granted mining lease over an area of 121.408 Ha vide G.O. No 53 dated 02.02.2002 for a period of 20 years. The mining lease deed was executed on 22.02.2002. The CTE was obtained from State Pollution Control Board on 24.06.2002. The EC was obtained on 12.03.2004 under EIA Notification 1994 in the name of M/s My Home Cement Industries Limited. The Government has accorded permission to change in the name of the Company from M/s. My Home Cement Industries Limited to M/s. My Home Industries Limited vide G.O No 215 dated 11.08.2008 under rule 62 of MCR, 1960. The Govt. accorded permission for the surrender of part of mining lease vide G.O. No 32 dated 2.12.2014. The mining lease deed for the reduced area of 89.37 Ha was executed on 4.02.2015. The Govt. accorded permission for change of name of the company from M/s. My Home Industries Limited to M/s. My Home Industries Private Limited vide G.O No 86 dated 26.11.2015. The Govt. extended the validity of Mining lease for 50 years I.e. upto 21.02.2052 vide G.O No 68 dated 24.08.2017.

6. The PP also submitted that the initial mining plan was approved on 30.11.2001. The notice of opening of the mine was submitted on 02.12.2004. The Scheme of Mining was approved on 19.02.2009 & 08.09.2011. Modified mining plan was approved on 08.08.2016. As per the approved mining plan the mining will be carried out by Opencast fully mechanised with drilling and blasting. During the mining operations the bench height and width will be maintained 9mx6m simultaneously. PP also reported that there will not be any waste generation during the mining operations. PP also reported that the ultimate pit depth will be 45m. PP also reported that the top Soil shall generates 0.007 MTPA, the same will be used for plantation.

7. PP reported that the total mine lease area is 89.37 Ha and at the conceptual stage mined out area will be 46.747 Ha, the same will be converted into a water reservoir, 13.62 Ha will be the afforested under greenbelt development, 28.513 ha will be unused mining lease area, 0.49 Ha will be under roads and infrastructure.

8. PP reported that there is no 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.

9. The PP also submitted the letter no 2114/M2/2000 dated 15.03.2019 issued Assistant DMG, Suryapet regarding past production details of the mines from 2002-03 till 2018-19 (up to 28.02.2019) and also PP declared that they are not covered under the violation of Hon'ble Supreme Court Order dated 02.08.2017 in the matter of Common cause Vs Union of India (W.P.C. 114 of 2014) and Ministry's Notification 804(E) dated 14th April, 2017. PP submitted an Undertaking by way of Affidavit in compliance to the Ministry OM No 3-50/2017 -IA. II(M) dated 30.05.2018 to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.

10. PP reported that the total water requirement during peak summer will be 125 m³/day. Drinking water facilities are provided from Cement plant and water required for Dust suppression and greenbelt development is sourced from existing Mine pits of MHIPL.

11. PP reported that the total cost of the project will 50 lakhs and the total 41 People required for carrying the mining operations.

12. On detailed deliberations, the committee observed that the ownership of the company has not changed but the name of the company has been changed. Therefore, the committee is of the opinion that the requisite documents regarding change of the name of the company may be submitted along with the EIA/EMP. Further the committee observed that mining lease has been reduced by the Government on surrendering the Forestland. Therefore the forestland has been asked to surrender by the Government itself, the amendment to this effect in EC is not required. The committee noted that the production is within the EC and CTO capacity as certified by the PP.

13. The committee has deliberated on the issue of requirement of conduct of public hearing, as a general approach to be followed for the proposals submitted under S.O. 1530 (E) dated, 6th April, 2018 for regularization of ECs which were granted under 1994 in light of the Hon'ble Supreme Court judgment 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., and judgment dated the 7th February, 2018 in Special Leave to Appeal (Civil) No. 32138 of 2015 in the matter of Goa Foundation versus M/s Sesa Sterlite Ltd., & Ors. It was noted that the provisions given in S.O. 1530 (E) dated, 6th April, 2018 is as follows:-

*“.....that the project proponent in all such cases involving validity of the environmental clearance and expansion of mining projects vis-à-vis the base production, shall make application within six months from the date of issue of this notification in Form-1 as given in Appendix-II of the EIA Notification, 2006, for grant of environmental clearance under the provisions of the EIA Notification, 2006, and all such applications shall be considered by the concerned Expert Appraisal Committee or the State Level Expert Appraisal Committee, as the case may be, **who shall decide on the due diligence necessary including preparation of Environmental Impact Assessment Report and public consultation and the application shall be appraised accordingly for grant of environmental clearance**”*

In the instant case, the PP has requested for exemption from the public hearing. The committee felt a need to have a uniform framework for consideration of such request for exemption of PH. The committee also considered the approach taken by other EAC's particularly the coal mining committee, where the EAC recommends to invite written objections/comments from the public. The committee also noted that there is an inclusive provision in EIA Notification, 2006 to call for written comments and objections as part of public consultation. The committee, after detailed deliberations, has decided that in certain cases the public hearing can be exempted, but the PP needs to invite the suggestions/objections as wider part of public consultations for the project, as per the procedure prescribed in EIA Notification, 2006. The committee also decided that for all these class of cases, the exemption of component of public hearing can be considered, if the proposal meets the following criteria:-

- i. The project must have undergone a Public hearing under EIA Notification, 1994 as part of its appraisal earlier for the same capacity and ML area, during life of the project;
- ii. The present proposal shall be with 'No increase in the production capacity and Mining lease;' and
- iii. No change in mining namely, mining method, mining plan, mineral transportation, water requirement, reclamation plan.
- iv. The Proposal shall not be a violation case.

14 Based on the deliberations, the committee recommended for grant of ToR with following specific ToRs:-

1. Considering that the project has undergone public hearing on 3rd May, 2002 as per EIA Notification 1994 and also, the present proposal is the same as per the earlier EC, and there is not reported violation of EC. And therefore, the request of PP to exempt the PH is agreed to by the EAC. However, the PP shall invite comments/objections on the EIA report and other documents as per the EC regulations 2006 as part of public consultation

2. The project proponent shall submit the approval of revised mining plan for the reduced extent along with the EIA/EMP;
3. The PP shall submit the documents in respect of mining lease, mining plan approval, certificate from RoC on the new name of the company i.e. M/s. My Home Industries Private Limited.
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.
5. 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.
6. 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.
7. PP needs to submit the GLC values of all the pollutants in control case and worst case scenario considering the existing Habitats, roads, water bodies and other terrain features. The PP needs to define the transportation route of thee mineral and impact due to transportation.
8. The impact of silting in the surface waters due to mining activities shall be assessed.
9. 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.
10. The PP should submit the real-time aerial footage & video of the mining lease area and of the transportation route.
11. 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.

12. 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.
13. 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.
14. 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.
15. PP should submit the measures/technology to be adopted for prevention of illegal mining and pilferage of mineral.
16. 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.
17. 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.

18. 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.
19. The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.
20. 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.
21. 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.

2.7 Production of 5.50 MTPA of Limestone total excavation from the mines will be 6.54 MTPA (Limestone: 5.5 MTPA, Soil: 0.56 MTPA and Waste: 0.48 MTPA) from Sonadih Limestone Mine (ML-1; Area : 294.160 Ha) located near Villages - Sonadih, Dhabadih, Raseda, Keshdabri, Baloda Bazar Tehsil & Balodabazar - Bhatapara District, Chhattisgarh by M/s Nuvoco Vistas Corporation Limited

[File No.: J-11015/184/2016-IA.II(M); Proposal No IA/CG/MIN/72229/2016; Consultant: B.S. Envi -Tech Pvt. Ltd] - EC Regarding1.

1. The proposal of M/s. Nuvoco Vistas Corporation Limited is for total excavation from the mines will be 6.54 MTPA (Limestone: 5.5 MTPA, Soil: 0.56 MTPA and Waste: 0.48 MTPA) for production of 5.50 MTPA of Limestone from Sonadih Limestone Mine (ML-1; Area 294.160 Ha] located near Villages - Sonadih, Dhabadih, Raseda, Keshdabri, Baloda Bazar Tehsil & Balodabazar - Bhatapara District, Chhattisgarh. The mine lease area lies between the 21°43'10.0"- 21°45'0.0" North latitude and 82°10'50.0"-82°12'20.0" East Longitude with an average altitude of 243-259m above MSL on the Survey of India Toposheet No. 64/K/2.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category A or Activity 1(a) as the mining lease area is greater than 100 ha.

3. The Project Proponent [then M/s. Lafarge India Pvt. Limited] applied vide proposal no IA/CG/MIN/58559/2016 for prescribing Term of Reference (ToR) and submitted Form-1 and Pre-feasibility report. The proposal was considered in EAC meeting held on September 19-20, 2016, and EAC in its meeting held on November 23-25, 2016 recommended the proposal for prescribing Term of Reference (ToR). The ToR letter was issued on 16.12.2016 in the name of M/s. Lafarge India Pvt. Limited. The Project Proponent then applied for transfer of Terms of Reference (TOR) from M/s. Lafarge India Pvt. Limited to M/s. Nuvoco Vistas Corporation Limited and submitted the requisite information and documents. The Ministry accorded transfer of TOR to M/s. Nuvoco Vistas Corporation Limited on 06.03.2018.

4. The application for grant of Environmental Clearance was made vide proposal No. IA/CG/MIN/72229/2016 dated 5.08.2018 in the name of M/s Lafarge India Limited and Ministry raised EDS on 11.09.2018. Application was re-submitted on 18.11.2019 and the EDS were raised on 10.12.2019. PP replied to EDS vide letter dated 18.12.2019. In the meanwhile, PP applied for EC vide proposal No. IA/CG/MIN/72229/2016 dated 20.02.2020 and withdrawn the earlier application on 24.03.2020. PP also submitted EIA/EMP Report and other information required for appraisal of the project. The proposal is now placed in EAC meeting held during 20-21 April, 2020.

5. Based on the discussion held and document submitted the Committee **deferred** the proposal as some of the ToR points are not addressed properly, public hearing issues are not addressed properly and for want of following requisite information.

- i. All ToR points shall be addressed properly and relevant information needs to be provided against each ToR Point.
- ii. Mining Plan and EIA Report needs to be crossed examined for land use and waste dumping as i) in the mining plan land use for remaining 21.75 Ha is not provided, in EIA/EMP Report it has mentioned that there will be no left over OB or reject dump at conceptual stage but in the land use plan 13.03 Ha is shown under OB/Waste dump.
- iii. Agreement made with Water Resources Department needs to be submitted. In addition to PP needs to submit a plan with timeline so that mine will become self-sufficient for its water requirement and water from external source will be not required.
- iv. Plantation schedule needs to be revised so that maximum plantation can be completed within a period of 5 years and for the remaining

period only progressive plantation and gap filling needs to be done to maintain a density of plantation of at least 2500 saplings/ha.

- v. PP shall submit the letter from Chief Wildlife Warden certifying the distance of mining lease from the protected area falling in 10 KM radius
- vi. Impact of mining activity on the reserve forest which is located at a distance of 0.6 KM.
- vii. List of Schedule-1 Species duly authenticated by PPCF (Wildlife) and based on the same conservation plan needs to be prepared. Proof of submission of conservation plan needs to be submitted. In case there is no change in list of schedule-1 species for which conservation plan has already been approved then a letter from PCCF (wildlife) may be submitted to the effect that there are no schedule-1 species in the core and buffer zone of the mining lease, other than what mentioned in approved conservation plan.
- viii. Cumulative impact needs to be calculated considering the existing mines, existing cement plant and proposed mines. Lead distance mentioned in the EIA/EMP report needs to be examined and modeling should be done based on the actual distances.
- ix. Public Hearing Points needs to be addressed properly, and compliance of commitment previously made during PH of the existing mines and cement plant needs to be submitted.
- x. There is habitation in the mining lease area, therefore R&R Plan needs to be submitted. There is some issue in the PH regarding purchase of land. Therefore, complete details of compensation paid to project affected families and persons needs to be submitted.
- xi. PP needs to submit in a tabular format, the year wise total excavation, waste generation, top soil generation and utilization, back filling plan, area of dump yard, quantity of waste etc. along with conceptual plan prepared for every five years over the life of mine to ascertain the progress of mines over the years.
- xii. As the mine is not contiguous location of weighbridges and transportation route needs to be submitted for each mining block. Feasibility of conveyor transportation needs to be submitted.
- xiii. What is the source of water for the cement plant and existing mining lease? Source of data for ground water level calculation needs to be submitted.

- xiv. Public health implications, safety issues etc. needs to be addressed properly.
- xv. It is not clear whether the canal is made up of concrete or not. There is a sudden dead end of canal and no reason was provided for the same. Therefore, a Study needs to be submitted which clearly bring out the complete details about the canal and safety measure to be taken for mining near canal, *inter alia*, including the safe distance of mining; method of mining / blasting proposed; measures against the blast induced vibrations; and NOC from the concerned authority for mining near canal.
- xvi. PP needs to bring out the details of the area to be put up under mining and left under safety zone (viz. around canal, electric line, railway line, public roads, statutory barrier etc.). The amount of mineral available after the same and blocked in safety zone.

2.8 Proposed Limestone Mine (Mudhvay Sub Block D, Applied ML Area - 107.00 ha) with Limestone Production Capacity of 1.6 Million TPA, Top Soil – 0.32 Million TPA & Overburden – 0.515 Million TPA by M/s. JSW Cement Ltd located at Village – Mudhvay, Taluka – Lakhpat, District – Kachchh, Gujarat – Consideration for EC.

[IA/GJ/MIN/85230/2018; J-11015/187/2018-IA-II(M)]

1. The proposal of M/s. JSW Cement Limited is for mining of Limestone (Mudhvay Sub Block D) with production capacity of 1.6 Million TPA, Top Soil – 0.32 Million TPA & Overburden – 0.515 Million TPA in the ML area of 107.00 ha. The mine lease area is located at Village – Mudhvay, Taluka – Lakhpat, District – Kachchh, Gujarat. The mine lease area falls between Latitudes 23° 42' 12.1144" N to 23° 42' 57.7472" N & Longitudes 68° 40' 07.4650" E to 68° 40' 59.0367" E with Survey of India Topo-Sheet No. 41A/10 and study area – 41A/9, 41A/13 and 41A/14.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under **Category A** or Activity 1(a) as the mining lease area is greater than 100 ha.

3. The Project Proponent applied online vide proposal no IA/GJ/MIN/85230/2018 for prescribing **Term of Reference (ToR)** and submitted Form-1 and Pre-feasibility report. The proposal was considered in EAC meeting held on 29th November, 2018, and again in its meeting held on 29-30 May, 2019 wherein the EAC recommended the proposal for prescribing standard Term of Reference (ToR) along with specific TOR. The ToR letter was issued on 28.06.2019.

4. The Project Proponent vide proposal No. IA/GJ/MIN/85230/2018 applied for grant of **Environment Clearance** online on 31.01.2020 and submitted the EIA Report after conducting the Public Hearing. Subsequently, EDS was raised on 13.02.2020 for submission of following requisite information.

- (i) Approved Schedule-I Species Conservation Plan
- (ii) KML file of the Mine lease area.
- (iii) NOC for the Ground Water inter section from the Competent Authority.
- (iv) Authorization given to consultant but power of authority didn't submit by the PP.

PP has submitted the aforementioned requisite information vide letter No. JSWCL/Mudhvay/Mine/MoEF/2020/03 dated 28.02.2020 uploaded on PARIVESH on 29.02.2020.

5.0 After detailed deliberations on the proposal in the EAC in its meeting held during April, 20-21 April, 2020, the following observations were made by the committee: -

- i. The committee noted that earlier two other mines are proposed to operate in the surrounding area of the project.
- ii. The project proponent has not decided the location of the cement plant proposed by the them and therefore the mode of transport has been planned with truck transport. The committee opined that the PP shall decide on the location of the Cement plant and shall plan for transportation of raw material through a closed conveyor keeping in view of the cluster of activities proposed in the area. Further, the PP may explore the possibility of transportation through common infrastructure with the other projects for efficient control of dust generation.
- iii. The project is located about 2.5 Km from the Narayan Sarovar Wildlife Sanctuary and there may be impact of the proposed project and also other projects coming up in the area. Therefore, the ornithological study is required for assessment of migratory birds by reputed institute.
- iv. Detailed hydrogeological survey to be conducted in view of salinity ingress, if any in the mining process up to the conceptual pit limit.
- v. Stage wise reclamation plan of the mine up to the period of conceptual pit limit has not been provided with EIA Report.
- vi. Issues raised during the Public hearing has not properly addressed in the EIA Report.
- vii. The manpower and organization chart provided is not relevant to the environmental cell as most of the mine/plant manpower has been shown against the environment head. The mechanism of reporting the non-

compliances / infringements at periodical interval to the board of directors has not been provided.

6.0 The committee **deferred** the proposal for want of the following information / documents / studies:

- (i) PP shall decide on the location of the Cement plant and shall plan for transportation of raw material through a closed conveyor keeping in view of the cluster of activities proposed in the area. Further, the PP may explore the possibility of transportation through common infrastructure with the other projects for efficient control of dust generation.
- (ii) Detailed hydrogeological survey to be conducted in view of salinity ingress, if any in the mining process up to the conceptual pit limit. The aquifer characteristics shall be delineated with geophysical survey to assess impact on the ground water regime and mitigation measures.
- (iii) Stage wise reclamation plan of the mine up to the period of conceptual pit limit shall be provided in the environment management plan
- (iv) As the area is in close proximity to Narayan Sarover Wild life sanctuary, a study to assess the impact of mining activity on bird's Migratory path shall be conducted and mitigation plan for the same shall be incorporated in consultation with State Government and the revised conservation plan to be submitted.
- (v) Fodder development plan for the livestock to mitigate the impact on grazing land due to mining activity for the village of the vicinity shall be brought out in the socio economic development plan.
- (vi) Issues raised during the Public hearing shall be properly addressed along with time bound action plan.
- (vii) The revised manpower and organization chart shall be provided relevant to the environmental cell for implementation of EMP and environmental monitoring. The mechanism of reporting the non-compliances / infringements at periodical interval to the board of directors has not been provided
- (viii) The plantation shall be planned with native species including leguminous grass in lieu of the proposed exotic species like *Prosopis Julifora*.
- (ix) Annual total excavation quantity shall be provided;

- (x) The schedule of the occupational health survey shall be furnished in the Environmental management plan as per the ILO and DGMS rules

2.9 Proposal of M/s Shri Narendra Agarwal of mining project of Sambhariya Limestone (MLA – 103.0 Ha & ML No. 65/1994), Production- 6, 48,880 TPA (RoM), Near Village – Sambhariya, Tehsil – Bilara & District – Jodhpur, (Rajasthan) located near village- Sambhariya, Tehsil- Bilara, District- Jodhpur, Rajasthan.

[IA/RJ/MIN/140219/2020; J-11015/58/2016-IA.II (M)]

The project proponent did not attend the meeting. Therefore the proposal is deferred on account of PP did not attend the meeting

2.10 Majhgawan Diamond Mine, Panna of M/s NMDC Ltd. for 0.72 LTPA of over burden removal and Processing of Kimberley ore (8 MTPA) for production of 1.00 lakh carats of Diamonds located at village Majhgawan, Tehsil & District Panna, Madhya Pradesh-(MLA 162.631 Ha) - Consideration of Proposal under Ministry's Notification vide S.O. (E) 1530, dated 06.04.2018-Reconsideration of TOR.

[IA/MP/MIN/80115/2018; IA-J-11015/121/2018-IA-II(M)]

1. The proposal is of M/s NMDC Ltd. for Supplementary Mining Lease area of 162.631 Ha with 0.72 LTPA over burden removal and processing of Kimberlite ore of 8.0 LTPA for production of 1.00 lakh carats of Diamond per annum. The mine is located at Village Majhgawan, District Panna, and State Madhya Pradesh. The supplementary mine lease consists of 162.631 Ha lease area, out of which 74.018 Ha is Forest land and remaining 88.613 Ha is Non-Forest Land. The mine lease area is covered under SOI Toposheet No: 63D/2 and bounded by Latitude: 24°38'13.88" to 24°39'15" N Longitude: 80°00'40" to 80°02'43.2" E (Based on WGS-84 Datum).

2. As per EIA Notification dated 14thSeptember, 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.

3. The PP applied online vide its proposal no. IA/MP/MIN/80115/2018 dated 26.09.2018 and the proposal was placed in EAC meeting held on 23-24 October, 2018 and 24-25 September 2019.

4. As per Rule 3(1) of Mineral (Mining by Government companies) Rule 2015, supplementary Mining Lease is valid up to 30.06.2020 from the initial date of grant on 01.07.1970. Accordingly, DMP Panna has received a letter from Diamond officer panna, regarding the execution of deed of Supplementary Mining Lease of DMP panna over an area of 162.631 Ha., vide letter no. 918

dated 26.03.2018, up to 30.06.2020. The lease deed is under execution process for the period up to 30.06.2020. The PP has submitted that the action has initiated for SML Lease period extension, for a further period of 20 years i.e. from 01.07.2020 to 30.06.2040 as per Rule 3(2) of Mineral (Mining by Government Companies) Rule 2015.

5. The PP reported that the Environmental Clearance has been obtained by the Ministry, vide letter no. J-11015/323/2005-IA.II (M) dated 13/01/2006 for Panna Diamond Mine (40, 000 carats to 1, 00, 000 carats) in the Mine Lease Area of 275.963 Ha to M/s National Mineral Development Corp. Ltd. under the EIA Notification 1994.

6. PP submitted that the previous Environmental clearance was issued for Diamond Mining Project consisting of 2 mining leases i.e. Main Mining Lease (113.332 Ha) and Supplementary Mining Lease (162.631 Ha). The Main Mining Lease (113.332 Ha) mainly consists of Diamond quarry where ROM Kimberlite ore is mined and part of over burden dumps, coarse & fine tailing dumps, mineral storage, roads, tailing pond, green belt, township & others whereas the supplementary mining lease (162.631Ha) consists of processing plant where mineral beneficiation is being carried out for recovery of Diamonds. The area also consists part of over burden dump, Tailing Pond, CISF Barracks, Township, etc.

7. PP has submitted that Ministry issued Environmental clearance lease wise instead of integrated E.C. comprising of two or more leases. Accordingly, the present application is for obtaining Environmental clearance for Diamond Mining Project, in the mine lease area of 162.631 Ha, with the proposed production capacity of with 0.72 LTPA over burden removal and processing of Kimberlite ore of 8.0 LTPA for production of 1.00 lakh carats of Diamonds per annum. Since Main Mine lease area forms the main diamond quarry, entire ROM Kimberlite is to be excavated from the MML area.

8. Project Proponent mentioned that in the earlier EC letter dated 13/1/2006 issued for Panna DMP, it was mentioned that 5,600 m³ /month sand stone and 22,000 m³ /month OB totaling 27,600 m³ /month is generated. Considering the in-situ density as 2.0, the total waste excavation shall be 6.62 lakh tons / annum. Since, major over burden removal is to be excavated from main mine lease area i.e. 90% of total O.B removal, the quantity of O.B removal from mine lease area is 5.90 lakh tons per annum and balance 0.72 lakh tons per annum from Supplementary mine lease area. There is no change in the quantity of total excavation i.e. ROM Kimberlite and OB removal in the present proposal when compared with E.C obtained on 23/1/2006 under EIA 1994 notification.

9. Based on the presentation and deliberation during the meeting, the proposal was deferred and Committee sought the following, (i) Detailed report

on the implementation of Monitoring Committee and its compliance, (ii) The Committee noted that Earlier PP obtained Environmental Clearance vide letter no J-11015/323/2005- IA.II (M) dated 13/1/2006 for Panna Diamond Mine (40, 000 carats to 1, 00, 000 carats) in the Mine Lease Area of 275.963 ha. Now PP applied for separately lease wise, Hence, The Committee sought the total proposed production Quantity, Over Burden, waste, etc. should be mentioned clearly. (iii) The Committee also noted that a compliant has been received on this instant mine which inter-alia states that “The mine exists abutting the Panna Tiger Reserve and the mine also falls under the Buxwaha Protected Forest it is forest forms part of the wildlife corridor between Panna Tiger Reserve and Nauradehi Wildlife Sanctuary”. The Committee ask the Ministry to examine the issues.

10. Indian Bureau of Mines (IBM), Jabalpur has approved the Mining plan for SML for the period 2015-20, vide its letter no.MP/Panna/M.Sch.-1 26t14-15t4521dated 03.09.2015.

11. The PP reported that the mine plan/Scheme of Mining approved by the Indian Bureau of Mines (IBM), Jabalpur for the period 2015-20, vide its letter no.MP/Panna/M.Sch.- 126/14-15/4521 dated 03.09.2015. PP also submitted that the Kimberlite ore mined in Main Mine Lease is transported and the ore is stocked in 4 no's of stockpiles. The material with low incidence level of diamond is also stacked in the stock pile and is being fed to the Processing plant by proper blending during the dry seasons. The stocked material is fed into the Jaw crusher having capacity of 125 tons/hr. The material from the primary crusher goes to the scrubbing and screening section. The +20mm material goes to the secondary crushing section, -20+1.2mm material is carried to the Heavy media separation unit (HMS) and -1.2mm material mixed with water is pumped into the Tailing dam by means of pump. The +20mm material is carried to the secondary crushing section consist of two cone crushers of 150 Tons/Hr. capacity and crushed material is carried to 2 no's of HMS unit for further processing. The capacity of each HMS unit is 50 TPH module. Ferrosilicon medium is used for building up the density of water in churned condition. The concentrates from the sink screen of 2 no's. HMS units are fed to the existing concentrates reducing plant equipped with dryer, size separating screen and magnetic separators. From the concentrates reduction plant, the reduced concentrate is fed to the x-ray sorting unit for recovery of diamonds. The liquid effluents are discharged into existing Tailing pond and after settling, clear water is pumped back to the water tanks for re-processing. The coarse tailings generated are stacked at designated locations within mine lease area. The type of waste is over-burden material and is being dumped in the well-designed Overburden-dump yard. Terracing and stepping-form shape is also being given to the overburden heap followed by girdle-wall at the toe of the dumped material.

12. The method of mining is "Open cast". Hydraulic shovel(backhoe) with 2.5 M3 bucket capacity in combination of 40 tonne dumpers and 4½ inch dia Drills are deployed for excavating the Kimberlite ore from the mine. The bench height is maintained at 10 meters with an overall pit slope of 40° angle (pit slope stability study and assessment of safe overall pit slope limit enclosed at Annexure-4). Blasting is done 3 to 4 times in a week by using slurry explosives. Presently 1 to 2 benches are in operation. All the safety norms as per DGMS directives and IBM guidelines are followed strictly. The bench width maintained is 10 Meters on an average. The Majhgawan pipe is oval shaped ore body having a longer axis of 530 meters and shorter axis of 320 meters. The ore body is suitable for opencast mining method. The inherent constraints are nature, shape and the grade, limited area of operation within pipe rock and country rock of sandstone. The entire tuff or pipe rock falls in the main mine-lease in the form of ROM. The shale and sand stone are considered as waste within the stripping limits. From the original surface of about 370 meters from MSL the open pit is proposed to be excavated up to 210 meters level. The Conceptual Plan developed as on 01.04.2018 is shown in Plate number 3.

13. The Committee observed that as per the Ministry's Notification S.O. 1530(E) dated 06.04.2018 wherein it has mentioned that "the Hon'ble Supreme Court vide judgment dated the 7th February, 2018 in Special Leave to Appeal (Civil) No. 32138 of 2015 in the matter of Goa Foundation versus M/s Sesa Sterlite Ltd. & Ors has reiterated that the validity of the environmental clearance for mining projects granted under the EIA Notification, 1994 shall be five years" and "whereas, all mining projects mentioned in clause (b) of fourth paragraph above are required to obtain environmental clearance under the EIA Notification, 2006, in pursuance of the aforesaid judgments of the Hon'ble Supreme Court". The clause (b) of the notification is "mining projects, which were granted environmental clearance under the EIA Notification, 1994, and but not obtained environmental clearance for expansion / modernization / amendment under the EIA Notification, 2006." In the instant case the PP has obtained the EC under EIA Notification 1994 and now applied for EC as per Notification dated 06.04.2018. As per the notification the PP shall make application within six months from the date of issue of this notification in Form-1 as given in Appendix-II of the EIA Notification, 2006, for grant of environmental clearance under the provisions of the EIA Notification, 2006, and all such applications shall be considered by the concerned Expert Appraisal Committee or the State Level Expert Appraisal Committee, as the case may be, who shall decide on the due diligence necessary, including preparation of Environmental Impact Assessment Report and public consultation and the application shall be appraised accordingly for grant of environmental clearance.

14. PP submitted the order of Hon'ble Supreme Court dated 13.08.2008 in the matter of T.N. Godavaram Vs. Union of India (IA 1485 & 1507 in WP(C) 202 of 1995) wherein inter-alia it has mentioned that, "The project area is falling

within the Panna National Park/Wildlife Sanctuary. This project was examined by the CEC and approved subject to fulfilments of the following conditions: I. NPV as per the applicable rate will be deposited by NMDC for the 74.018 ha under its possession and 70.202 ha. of forest land used for Earthen Dam. II. 5% of the capital cost incurred on diamond mining project will be deposited for undertaking conservation and protection in the Panna National Park & Panna (Gangau) Wildlife Sanctuary. III. A proper Mine Closure Plan, which includes reclamation and rehabilitation measure, will be drawn and implemented at the cost of NMDC IV. The notification dated 12.04.2006 issued by the appropriate authority will be withdrawn V. A Monitoring Committee under the Chairmanship of the Chief Wildlife Warden with the Member Secretary, National Tiger Conservation Authority, Field Director, Panna National Park and a non- official Member of National Board for Wildlife (to be nominated by the MoEF) as its member will be responsible for (a) Approval of the mine closure Plan; (b) Prescribing and monitoring of various safeguards for operation of the mines; (c) Approval and Monitoring of annual work plan for utilisation of funds received from the NMDC towards the NPV and 5% of the project cost. The above project is approved subject to fulfilment of the above conditions.

15. The total water requirement of the Processing plant is about 10,643 m³/day. Out of the total effluent (8800m³/day) fed to the tailing pond, about 7040 m³/day treated effluent is recirculated for the use in processing plant. On an average, about 40m³/day water is drawn from Mine pit and used along with treated water for the processing of ore in the processing plant.

16. The PP submitted that the forest clearance letter no 8-93/98-FC dated 10.02.2003 from the Assistant Inspector General Forests, F.C Division, Ministry of Environment & Forests for diversion of 74.018 Ha forest land for renewal of supplementary mining lease outside the Panna National Park in favour of M/s NMDC Ltd. for diamond mining in District Panna under Section 2 of the Forest (Conservation) Act, 1980. Again the PP has submitted the Forest clearance for diversion of 74.018 Ha obtained from MoEF, New Delhi vide letter no: F.No.8-93/199g-FC (pt) dated 14.06.2012 forest land under section 2 of the Forest (Conservation) Act 1980.As per MoEF&CC circular dated 01/05/2015, the validity of approvals accorded under F.C. Act 1980 shall be extended and deemed to have been extended up to a period co-terminus with the Mining Lease in accordance with provisions of MMDR Amendment Act, 2015, for renewal of supplementary Mining Lease (having total 162.631 ha area) for a period of five years only for Majhgaon Diamond Mining Project of National Mineral Development Corporation Limited, in Panna (Gangau) Sanctuary in Panna District of Madhya Pradesh. The validity for diversion of 74.018 ha forest land is for a period of five years only, i.e. till 2017 only.

17. The PPsubmitted that the Mining lease area is located within the Panna (Gangau) Wildlife Sanctuary and is adjacent to the Panna National Park which is also a Tiger Reserve. PP is operating the mine within the Panna (Gangau)

Wildlife Sanctuary and is adjacent to the Panna National Park which is also a Tiger Reserve. PP has obtained the NBWL clearance on 10.02.2006. In this regard, PP has also submitted that the Hon'ble Supreme Court in its order dated 13.08.2008 in IA 1485 & 1507 in WP(C) 202 of 1995 (T.N. Godavaram vs. Union of India) wherein inter-alia it has mentioned that, "The project area is falling within the Panna National Park/Wildlife Sanctuary.

18. The PP has submitted that the total Manpower of 187 (Executives: 64 + Skilled: 123 persons) for carrying out mining operation activity and PP has mentioned that No Additional Man power Requirement is required.

19. The PP submitted that the Estimated Project Cost for the proposed project is Rs. 12.44 Cr. (Depreciated Value as on 31.03.2018).

20. This project was examined by the CEC and has approved subject to fulfillments of the following conditions: -

- a. NPV as per the applicable rate will be deposited by NMDC for the 74.018 ha under its possession and 70.202ha of forest land used for Earthen Dam.
- b. 5% of the capital cost incurred on diamond mining project will be deposited for undertaking conservation and protection in the Panna National Park & Panna (Gangao) Wildlife Sanctuary.
- c. A proper Mine Closure Plan, which includes reclamation and rehabilitation measure, will be drawn and implemented at the cost of the NMDC.
- d. The notification dated 12.04.2006 issued by the appropriate authority will be withdrawn.
- e. A Monitoring Committee under the Chairmanship of the Chief Wildlife Warden with the Member Secretary, National Tiger Conservation Authority, Field Director, Panna National Park and a non- official Member of their National Board for Wildlife (to be nominated by the MoEF) as its member will be responsible for (a) Approval of the mine closure Plan; (b) Prescribing and monitoring of various safeguards for operation of the mines; (c) Approval and Monitoring of the annual work plan for utilisation of funds received from the NMDC towards the NPV and 5% of the project cost. "Also said that to nominate Ms. Belinda Wright, as a nonofficial Member in the above said Monitoring Committee and the above project is approved subject to fulfillment of the above conditions.

21. On detailed deliberations of the committee the committee was desired the following information during the EAC meeting held in September, 2019: -

- i. PP should submit the recommendation of CEC for operation of mines submitted to compliance of conditions imposed by APEX Court
- ii. PP should submit the Forest Clearance (74.018 ha) and mine lease documents for the proposed mine area
- iii. Past Production details duly certified by DMG-Bhopal from 1993 on words till date

The PP submitted letter no 8-93/1998-FC(pt.), dated 14th June, 2012 regarding permission for diversion of 74.018 ha forest land under section 2 of FCA, 1980 which is valid till 2017. Renewal of supplementary Mining Lease (having total 162.631 ha area) for a period of five years only for Majhgaon Diamond Mining Project of NMDC, in Panna (Gangau) Sanctuary in Panna District of Madhya Pradesh. Therefore, PP required to submit valid forest clearance and permission of CEC beyond 5 years

22.0 The committee noted that the project proponent did not possess either recommendation of the CEC or Hon'ble Supreme Court or valid Forest clearance from the competent authority. Further, the committee is of the view that the views/ recommendations of NTCA either through written communication or through invitation to EAC meeting as an invitee may be obtained. Therefore, the proposal is deferred for want of the following information for consideration of the Terms of Reference: -

- i. Recommendation of the CEC or Hon'ble Supreme Court for allowing the mining operations beyond 5 years i.e. beyond the year 2020;
- ii. Valid Forest clearance from the competent authority;
- iii. Permission from the NBWL for mining beyond year 2020.

2.11 Majhgawan Diamond Mine, Panna of M/s NMDC Ltd. with total excavation of 13.90 LTPA [ROM Kimberlite ore @ 8 LTPA and Overburden removal @ 5.90 LTPA for production of 1.00 lakh carats of Diamonds per annum], located at village Majhgawan, Tehsil & District Panna, Madhya Pradesh-(MLA 113.332 Ha) - Consideration of Proposal under Ministry's Notification vide S.O. (E) 1530, dated 06.04.2018-Reconsideration of TOR.

[IA/MP/MIN/79085/2018; IA-J-11015/120/2018-IA-II(M)]

1. The proposal of M/s NMDC Ltd. is for Supplementary Mining Lease area of 162.631 Ha with 0.72 LTPA over burden removal and processing of Kimberlite ore of 8.0 LTPA for production of 1.00 lakh carats of Diamonds per annum. The mine is located at Village Majhgawan, District Panna, and State Madhya Pradesh. The supplementary mine lease consists of 162.631 Ha lease area, out of which 74.018 Ha is a Forest land and remaining 88.613 Ha is Non-Forest Land. The mine lease area is covered under SOI Toposheet No: 63D/2 and bounded by Latitude: 24038'14.47" to 24038'56.479" N Longitude: 80000'40" to 80002'21.5" E (Based on WGS-84 Datum).

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.

3. The PP applied online vide its proposal no. IA/MP/MIN/79085/2018 dated 17.09.2018 and the proposal was placed in EAC meeting held on 23-24 October, 2018 and 24-25 September 2019.

4. The main mining lease of Majhgawan Diamond Mine was initially granted in the year 1965 for a period of 20 years for an area of 116.30 Ha of revenue land. The mine lease area was reduced to 113.332 ha and renewed for a period of 10 years w.e.f. 1985 to 1995. The lease was renewed for a period of 20 years from 15.07.2005 to 14.07.2025 vide order no F-19-114/2000/1201 dated 01.08.2014 by the Mineral Resource Department, Government of Madhya Pradesh and the lease deed agreement was made on 21.01.2015. The lease deed was registered on 25.03.2015. Presently, the lease is valid up to 14.07.2025. PP reported that the total main mine lease area is 113.332 Ha.

5. The PP reported that the Environmental Clearance has been obtained by the Ministry, vide letter no. J-11015/323/2005-IA.II (M) dated 13/01/2006 for Panna Diamond Mine (40, 000 carats to 1, 00, 000 carats) in the Mine Lease Area of 275.963 Ha to M/s National Mineral Development Corp. Ltd. under the EIA Notification 1994.

6. PP submitted that the previous Environmental clearance was issued for Diamond Mining Project consisting of 2 mining leases i.e. Main Mining Lease (113.332 Ha) and Supplementary Mining Lease (162.631 Ha). The Main Mining Lease (113.332 Ha) mainly consists of Diamond quarry where ROM Kimberlite ore is mined and part of over burden dumps, coarse & fine tailing dumps, mineral storage, roads, tailing pond, green belt, township & others whereas the supplementary mining lease (162.631 Ha) consists of processing plant where mineral beneficiation is being carried out for recovery of Diamonds. The area also consists part of over burden dump, Tailing Pond, CISF Barracks, Township, etc.

7. PP has submitted that Ministry issued Environmental clearance lease wise instead of integrated E.C. comprising of two or more leases. Accordingly, the present application is for obtaining Environmental clearance for Diamond Mining Project, in the mine lease area of 162.631 Ha, with the proposed production capacity of with 0.72 LTPA over burden removal and processing of Kimberlite ore of 8.0 LTPA for production of 1.00 lakh carats of Diamonds per annum. Since Main Mine lease area forms the main diamond quarry, entire ROM Kimberlite is to be excavated from the MML area.

8. Project Proponent mentioned that in the earlier EC letter dated 13/1/2006 issued for Panna DMP, it was mentioned that 5,600 m³ /month

sand stone and 22,000 m³ /month OB totaling 27,600 m³ /month is generated. Considering the in-situ density as 2.0, the total waste excavation shall be 6.62 lakh tons / annum. Since, major over burden removal is to be excavated from main mine lease area i.e. 90% of total O.B removal, the quantity of O.B removal from mine lease area is 5.90 lakh tons per annum and balance 0.72 lakh tons per annum from Supplementary mine lease area. There is no change in the quantity of total excavation i.e. ROM Kimberlite and OB removal in the present proposal when compared with E.C obtained on 23/1/2006 under EIA 1994 notification.

9. PP submitted the Certified EC Compliance report of R.O. MoEF&CC, Bhopal vide letter no 3-7/2006/ (ENV)/448 dated 06.06.2019.

10. PP also reported that the life of the mine is 17 years as per the mining plan vide letter no. MP/Panna/Diamond/MPLN/MOD-22/2018-19 dated 27.11.2018 approved by the IBM, Jabalpur.

11. The entire Kimberlite pipe is situated in the 'main mine lease in the form of RoM' The method of mining is "Open cast" mechanised mine' The mine working is going deeper and deeper every year necessitating proportionate widening at the peripheral zone and top benches. The present operation is done with regular development of 10 m high benches, opening up in the center and moving the face towards periphery' 10 m high benches will also be maintained for overburden removal. Further in order to maintain the safe pit slope angle of 40 degree, it is also required excavating the overburden falling in the lease area and also in supplementary lease area' The shale and sand stone are considered as waste within the stripping limits. From the original surface of about 370 meters from MSL the open pit at present has got the lowest bench at 290 meters level. The present mine working benches for ROM Kimberlite ore/Waste are 260m to 370 m. The process of mining involves removal of overburden within stripping limit, winning diamondiferous tuff both un-weathered dark variety and the weathered light coloured variety and transport of the material to the stock- yard or to the plant'

12. PP submitted the order of Hon'ble Supreme Court order dated 13.08.2008 in the matter of T.N. Godavaram Vs. Union of India (IA 1485 & 1507 in WP(C) 202 of 1995) wherein inter-alia it has mentioned that, "The project area is falling within the Panna National Park/Wildlife Sanctuary.

13. PP submitted letter no NMDC/PANNA/DMP/MC/2019/653,419 dated 23.08.2019, wherein was mentioned that the 8th meeting of Hon'ble Supreme Court appointed Committee on NMDC Diamond Mining Project, Panna to monitor diamond mine, visited on 6.7.2019. The minutes of 8th Monitoring committee was communicated vide letter No. DM/5388, Bhopal, dated 29.07.2019 to PCCF (WI)/CWLW, MP.

14. PP submitted the copy of order dated 13th August, 2008 of Hon'ble Supreme Court in the matter of T.N. GodavarmanThirumulpad Vs Union of India &Ors (Writ Petition (Civil) No. 202 of 1995. In the said order the Hon'ble Supreme Court mentioned that "the mine may be permitted to continue for a period of five years. Further extension may be considered after report of the Monitoring Committee about effectiveness of the remedial measures and impact of mining on the tiger reserve."

15. The total water requirement of the Processing plant is about 10,643 m³/day. Out of the total effluent (8800m³/day) fed to the tailing pond, about 7040 m³/day treated effluent is re-circulated for the use in processing plant. On an average, about 40m³/day water is drawn from Mine pit and used along with treated water for the processing of ore in the processing plant.

16. The PP has mentioned that no Forest land is involved in the main mine lease area.

17. The PP submitted the approval from State Wildlife Board, Bhopal vide letter no: 5935/ ma/chi dated 06.12.2005 and recommendations of the Standing Committee of National Wildlife Board vide letter no 6-3/2003 WL-I (pt) dated 10.02.2006.

18. The PP has submitted that the total Manpower of 187 (Executives: 64 + Skilled: 123 persons) for carrying out mining operation activity and PP has mentioned that No Additional Man power Requirement is required.

19. The PP submitted that the Estimated Project Cost for the proposed project is Rs. 12.44 Cr. (Depreciated Value as on 31.03.2018).

20. This project was examined by the CEC and has approved subject to fulfillments of the following conditions: -

- i. NPV as per the applicable rate will be deposited by NMDC for the 74.018 ha under its possession and 70.202ha of forest land used for Earthen Dam.
- ii. 5% of the capital cost incurred on diamond mining project will be deposited for undertaking conservation and protection in the Panna National Park & Panna (Gangao) Wildlife Sanctuary.
- iii. A proper Mine Closure Plan, which includes reclamation and re-habitation measure, will be drawn and implemented at the cost of the NMDC.
- iv. The notification dated 12.04.2006 issued by the appropriate authority will be withdrawn.
- v. A Monitoring Committee under the Chairmanship of the Chief Wildlife Warden with the Member Secretary, National Tiger Conservation Authority, Field Director, Panna National Park and a non- official Member of their National Board for Wildlife (to be nominated by the

MoEF) as its member will be responsible for (a) Approval of the mine closure Plan; (b) Prescribing and monitoring of various safeguards for operation of the mines; (c) Approval and Monitoring of the annual work plan for utilisation of funds received from the NMDC towards the NPV and 5% of the project cost.

21. On perusal of the documents submitted by the PP, the committee observed that as per the condition number 2 of the approval of the State Wildlife Board vide 5935/ma./chi dated 6.12.2015, the **mining shall be reduced by 2019 and completed by 2020**. Further, the committee is of the view that the views/ recommendations of NTCA either through written communication or through invitation to EAC meeting as an invitee may be obtained. Therefore, the committee felt that to issue the Terms of Reference, the PP shall obtain the permission to mine beyond the year 2020. Therefore, the proposal is deferred for want of permission from the wildlife board to continue the mining operations beyond 2020; and Recommendation of the CEC or Hon'ble Supreme Court for allowing the mining operations beyond 5 years i.e. beyond the year 2020.

2.12 Expansion of Kodingamali Bauxite Mine for a production of 3.0 MTPA to 6.0 MTPA of Odisha Mining Corporation limited located in Koraput & Rayagada districts of Odisha – Consideration of ToR

[IA/OR/MIN/143523/2020; F.No. J-11015/ 439/2007-I.A II (M)]

1. The proposal of M/s. Odisha Mining Corporation (OMC) Limited is for enhancement of Production Capacity from 3.0 MTPA to 6.0 MTPA in Kodingamali Bauxite Mine located in Koraput & Rayagada districts of Odisha. The ML area over 428.075 Ha is confined within the Latitudes: 19°05'13.42"N to 19°01'46.35"N and Longitudes: 83°05'11.89" to 83°03'22.91" E and falls within Survey of India Topo Sheet No. E 44 F 4 on 1: 50,000 scale.

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) mining of minerals as the Mining lease area is more than 100 Ha. The PP applied online vide proposal No. **IA/OR/MIN/143523/2020** dated 17.02.2020 and submitted the Form-1, Pre-feasibility Report. Being an expansion proposal and in pursuant to S.O. 751(E) dated 17.02.2020 the Standard ToR was issued by the online system but EAC can prescribed the additional ToR within 30 days of acceptance. The proposal was accepted by Member Secretary on 13.04.2020 and the proposal is now placed in EAC meeting scheduled to be held on 20-21 April, 2020.

3. Based on the discussion held and document submitted the Committee has the following observations:

- a) The Committee is of the view that area in Form-1 is showing as 6 ha and PP in its EDS reply dated 2.04.2020 already clarified *“after making necessary entry of 3 & 6 in the Form-I (only numerical are allowed), it should automatically pick up MTPA as unit on preview. OMC has no control over the error on “MTPA” taking as “ha”. However, OMC have made necessary entry for 3 to 6 again.”* OMC has enclosed screen shot of the same.”As this is a technical issue related to PARIVESH the Committee ask the Member Secretary to look into this so that the same can be avoided in future. The Committee is of the view that PP may be asked to submit the revised Form-1 clearly mentioning the mining lease area and total excavation from the mines.
- b) Further, with regard to mismatch in mining lease area as mentioned in earlier EC and what is proposed now the Committee observed that in response of EDS dated 23.03.2020 the PP submitted that *“The EC granted earlier for the entire mining lease area of 447.25 ha [Vide letter No.J- 11015/439/2007-1A-II (M) dt 28.05.2008] was subsequently modified vide No. J-11015/439/2007- IA-II (M) dt 24.11.2017 and letter No. J-11015/439/2007-1A-II (M) dt 17.12.2018 over reduced mining lease area of 428.075 ha. The revised area of 428.075 ha has been clearly mentioned in the modified order dated 24.11.2017 (4th page). The diverted forest land over 434.935 ha comprises 428.075 ha of executed revised ML area and 6.86 ha of forest area outside the ML used for access road to the mining lease.”*

Committee also observed that forest area mentioned in Form-1 is -1 Ha which seems to be technical issue, however PP has uploaded the letter issued by Ministry of Environment Forest & Climate Change vide letter dated 8-46/2016-FC dated 25.09.2017 wherein the FC (Stage-II) clearance was granted for 434.935 Ha area (428.07 Ha mining lease including 18.098 Ha in safety zone and 6.860 Ha of forest land outside the mining lease for construction of road to approach mining lease).

- c) PP submitted that the Environment Clearance for Kodingamali Bauxite mining project has been accorded by Ministry of Environment, Forest and Climate Change (MoEF & CC) vide letter no. J-11015/439/2007-IA.II (M) dated 28.05.2008 for a production capacity of 3.0 million tons per annum, transportation through pipe conveyor, 200 KLD of water requirement sourced from treated waste water from alumina refinery for initial years and after that from mine pit.

Amendment of EC dated 28.05.2008 was provided vide letter dated **24.11.2017** for i) *The mining project shall use 400 KLD of water for its operations as per the permission granted by Water Supply department, Government of Odisha,* ii) *The land-use for the project shall be governed as per the Stage-1 FC granted by MoEFCC vide its letter dated 17.04.2017. The*

operations shall be started only after obtaining required approvals under Forest (Conservation) Act, 1980, iii) The PP shall carryout mineral transportation of only up to 1.26 Millon TPA of Bauxite ore by road subject to required strengthening of carriageway at present. As the EC permits production of 3 Million TPA of Bauxite ore, transportation beyond 1.26 Million TPA by road shall be allowed only on prior confirmation from the State PWD Department regarding preparedness of the 7 meter wide carriageway. At present, the PP is allowed to carry out transportation limited to 1.26 Million TPA and iv) The M.L. area shall be read as 428.075 Ha in placed of 447.15 Ha, based on executed lease dead and approved mining plan submitted by PP.

PP submitted letter No 6820 dated 1.08.2018 wherein it has mentioned that “ *it is to state that as verified the road from NH-326 to Marbaiguda village to Laxmipur block in the district is improved to 7 meter carriage way.*”

Amendment was again provided vide letter dated 17.12.2018 for transportation 3.0 MTPA of Bauxite Ore via road as committee previously observed “*that strengthening of carriage way to 7m width and 2.5 meter shoulder width may increase the carriage capacity to 3.7 Million Tonne.*”

PP has now applied for enhancement of Production Capacity from 3.0 MTPA to 6.0 MTPA in Kodingamali Bauxite Mine located in Koraput & Rayagada districts of Odisha. But during the presentation PP was unable to make it clear whether the roads of 7.0-meter width and 2.5 meters shoulder width has been constructed or not. PP informed the Committee that they will verify the details and thereafter submit the required information.

- a) During the meeting PP informed the Committee that there is a proposal of laying of conveyor belt for mineral transportation from mining lease to railway siding but feasibility report is not finalized yet. The Committee is of the view that complete details in this regard are required to understand the transportation scenario.
- b) Committee also observed that road condition as shown in the presentation and what is visible on viewing the KML is completely different. There are many narrow bends in the roads and how such a huge quantity of mineral will be transported through this road. The same needs to be justify by the project proponent.
- c) The Committee observed that on viewing the KML file, it has found that mining operations are outside the mining lease at some of the places which needs to verified. PP was not able to justify the same during the meeting and informed that the KML file will be verified and authenticated with DGPS map will be submitted and a letter from the State Government Viz. Department of Mining & Geology and Concerned Forest

department to the effect that all mining operation are well within the allocated mining lease.

d) The Committee observed that water demand for the said project has already been increased from 200 KLD to 400 KLD. PP needs to justify that why permission from CGWA is not required for drawl of 400 KLD ground water. Compliance of Ministry's O.M No 21-103/2015-IA.III dated 2.11.2018 needs to be submitted.

e) EC compliance with respect to plantation in safety zone and plantation along the transportation roads is not satisfactory.

4. Due to the above reasons Committee **deferred** the proposal and is of the view that proposal may be considered only after submission of the following information.

- i. Revised Form-1 clearly mentioning the mining lease area, total excavation from the mines and Forest area.
- ii. Certificate from Forest Department, Odisha after verifying the KML file with actual ground situation to the effect that all the mining operation related to this project are well within the mining lease area.
- iii. A certificate from the PWD department that the road for carrying out mineral in addition to having a width of 7 meters also has a 2.5 meters shoulder width on either side of the road.
- iv. Whether there is any ground water withdrawal for the project, if yes, then permission from CGWA has been obtained or not. Compliance of Ministry's O.M No. No 21-103/2015-IA.III dated 2.11.2018 needs to be submitted.
- v. Complete details of transportation plan need to be submitted with supporting document, maps, plan etc. In addition to this details of each section of road starting from mining lease needs to be provided with their carrying capacity w.r.t to i) traffic and ii) strength of road for the transportation of minerals.
- vi. PP shall submit the time bound plantation plan for safety zone and avenue plantation along the species.

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

Annexure-III

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 wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

3) Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the

mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

4) The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

5) Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.

6) Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC annually.

7) Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards

prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.

8) The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.

IV. Noise and vibration monitoring and prevention

9) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.

10) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.

11) The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

V. Mining plan

12) The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, overburden, interburden 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, NO_x and CO monitoring. Location of air quality monitoring stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board (based on Emission Load Assessment Study). The number of monitoring locations may be more for larger capacity mines and working in larger area. Out of four stations, one should be online monitoring station in the mines having more than 3 MTPA EC Capacity. (iii) Monitoring in buffer zone should be carried out by SPCB or through NABET accredited agency. In addition, air quality parameters (SPM, PM10, PM2.5, SO₂, NO_x and CO) shall be regularly monitored at locations of nearest human habitation including schools and other public amenities located nearest to source of the dust generation as applicable. (iv) Emissions from vehicles as well as heavy machinery should be kept under control and regularly monitored. Measures should be taken for regular maintenance of vehicles used in mining operations

and in transportation of mineral. (v) The vehicles shall be covered with a tarpaulin and should not be overloaded. Further, possibility of closed container trucks should be explored for direct to destination movement of iron ore. Air quality monitoring at one location should also be carried out along the transport route within the mine (periodically, near truck entry and exit gate), Responsibility: Individual Mine Lease Holders and SPCB.

17) Noise and Vibration Related: Project Proponent shall implement the following mitigation measures: (i) Blasting operation should be carried out only during daytime. Controlled blasting such as Nonel, should be practiced. The mitigation measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented. (ii) Appropriate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs. (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone. Further, date, time and distance of measurement should also be indicated with the noise levels in the report. The data should be used to map the noise generation from different activities and efforts should be made to maintain the noise levels with the acceptable limits of CPCB (CPCB, 2000) (iv) Similarly, vibration at various sensitive locations should be monitored atleast once in month, and mapped for any significant changes due to successive mining operations. Responsibility: Individual Mine Lease Holders.

18) Water/Wastewater Related: Project Proponent shall implement the following mitigation measures: (i) In general, the mining operations should be restricted to above ground water table and it should not intersect groundwater table. However, if enough resources are estimated below the ground water table, the same may be explored after conducting detailed geological studies by GSI and hydro- geological studies by CGWB or NIH or institute of national repute, and ensuring that no damage to the land stability/ water aquifer system shall happen. The details/ outcome of such study may be reflected/incorporated in the EIA/EMP report of the mine appropriately. (ii) Natural watercourse and/or water resources should not be obstructed due to any mining operations. Regular monitoring of the flow rate of the springs and perennial nallas should be carried out and records should be maintained. Further, regular monitoring of water quality of nallas and river passing thorough the mine lease area (upstream and downstream locations) should be carried out on monthly basis. (iii) Regular monitoring of ground water level and its quality should be carried out within the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out on monthly basis. (iv) In order to optimize water requirement, suitable conservation measures to augment ground water resources in the area should be undertaken in consultation with Central

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

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

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

20) Ecology/Biodiversity (Flora-Fauna) Related: Project Proponent shall implement the following mitigation measures: (i) All precautionary measures should be taken during mining operation for conservation and protection of endangered fauna namely elephant, sloth bear etc. spotted in the study area. Action plan for conservation of flora and fauna should be prepared and implemented in consultation with the State Forest and Wildlife Department within the mine lease area, whereas outside the mine lease area, the same should be maintained by State Forest Department. (ii) Afforestation is to be done by using local and mixed species saplings within and outside the mining lease area. The reclamation and afforestation is to be done in such a manner like exploring the growth of fruit bearing trees which will attract the fauna and thus maintaining the biodiversity of the area. As afforestation done so far is very less, forest department needs to identify adequate land and do afforestation by involving local people in a time bound manner. (iii) Green belt development carried out by mines should be monitored regularly in every season and parameters like area under vegetation/plantation, type of plantation, type of tree species /grass species/scrubs etc., distance between the plants and survival rate should be recorded. (iv) Green belt is an important sink of air pollutants including noise. Development of green cover in mining

area will not only help reducing air and noise pollution but also will improve the ecological conditions and prevent soil erosion to a greater extent. Further, selection of tree species for green belt should constitute dust removal/dust capturing plants since plants can act as efficient biological filters removing significant amounts of particulate pollution. Thus, the identified native trees in the mine area may be encouraged for plantation. Tree species having small leaf area, dense hair on leaf surface (rough surface), deep channels on leaves should be included for plantation. (v) Vetiver plantation on inactive dumps may be encouraged as the grass species has high strength of anchoring besides medicinal value. (vi) Details of compensatory afforestation done should be recorded and documented by respective forest divisions, and State Forest Department should present mine-wise annual status, along with expenditure details. Responsibility: Individual Mine Lease Holders and State Forest & Wildlife Department.

21) Socio-Economic Related: Project Proponent shall implement the following mitigation measures: (i) Public interaction should be done on regular basis and social welfare activities should be done to meet the requirements of the local communities. Further, basic amenities and infrastructure facilities like education, medical, roads, safe drinking water, sanitation, employment, skill development, training institute etc. should be developed to alleviate the quality of life of the people of the region. (ii) Land outtees and land losers/affected people, if any, should be compensated and rehabilitated as per the national/state policy on Resettlement and Rehabilitation. (iii) The socio-economic development in the region should be focused and aligned with the guidelines/initiatives of Govt. of India/ NITI Aayog around prosperity, equality, justice, cleanliness, transparency, employment, respect to women, hope etc. This can be achieved by providing adequate and quality facilities for education, medical and developing skills in the people of the region. District administration in association with mine lease holders should plan for “Samagra Vikas” of these blocks well as other blocks of the district. While planning for different schemes in the region, the activities should be prioritized as per Pradhan Mantri Khanij Kshetra Kalyan Yojna (PMKKKY), notified by Ministry of Mines, Govt. of India, vide letter no. 16/7/2017-M.VI (Part), dated September 16, 2015. Responsibility: District Administration and Individual Mine Lease Holders.

22) Road Transport Related: Project Proponent shall implement the following mitigation measures: (i) All the mine lease holders should follow the suggested ore transport mode (SOTM), based on its EC capacity within next 5 years. (ii) The mine lease holders should ensure construction of cement road of appropriate width from and to the entry and exit gate of the mine. Further, maintenance of all the roads should be carried out as per the requirement to ensure dust free road transport. (iii) Transportation of ore should be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore/dust takes place. Further, air quality in terms of dust, PM10

should be monitored near the roads towards entry & exit gate on regular basis, and be maintained within the acceptable limits. Responsibility: Individual Mine Lease Holders and Dept. of Steel & Mines.

23) Occupational Health Related: Project Proponent shall implement the following mitigation measures: (i) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects periodically. (ii) Occupational health surveillance program for all the employees/workers (including casual workers) should be undertaken periodically (on annual basis) to observe any changes due to exposure to dust, and corrective measures should be taken immediately, if needed. (iii) Occupational health and safety measures related awareness programs including identification of work related health hazard, training on malaria eradication, HIV and health effects on exposure to mineral dust etc., should be carried out for all the workers on regular basis. A full time qualified doctor should be engaged for the purpose. Periodic monitoring (on 6 monthly basis) for exposure to respirable minerals dust on the workers should be conducted, and record should be maintained including health record of all the workers. Review of impact of various health measures undertaken (at an interval of 3 years or less) should be conducted followed by follow-up of actions, wherever required. Occupational health centre should be established near mine site itself. Responsibility: Individual Mine Lease Holders and District Administration (District Medical Officer).

Annexure-V

Standard EC conditions for Mineral Beneficiation Plants:

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

List of member of Expert Appraisal Committee Participated through VC

S.No	Member Name	Member Address	Designation	20th APR	21st APR
1	Dr. S.R. Wate	Add. 148/149, Nagar Vikas Society, Narendra Nagar, Nagpur-440015, Maharashtra	Chairman	Yes	Yes
2	Shri.Sharath Kumar Pallerla	3rd Floor, Vayu Block, Indira Paryawaran Bhawan, MoEF&CC, Jorbhag, New Delhi-11003	Member Secretary	Yes	Yes
3	Shri B Ramesh Kumar	H-No. 6-1-134/6, Balram Compound, Padmarao Nagar, Secundrabad- 500025, Andhra Pradesh	Member	Yes	Yes
4	Prof. S. Ramakrishna Rao	50-120-9/1, Tulasi Mani Regency North Extension, Seethammadhara, Visakhapatnam - 530013 Andhra Pradesh.	Member	Yes	Yes
5	Shri Santosh Gupta	Flat No. 405, Block –B, Gaur Green Vista, Nyay Khand -1, Indrapuram, Ghaziabad-201014	Member	Yes	Yes
6	Dr. (Ms.) Asha Rajvanshi	Wildlife Institute of Inida, Chandrabani, Dehradun-248001	Member	Yes	Yes
7	Dr. Ajay Deshpande	148/149, Nagar Vikas Society, Narendra Nagar, Nagpur-440015, Maharashtra	Member	Yes	Yes
8	Shri G.P. Kundargi	Plot No. 32, MOIL Vatika, Chicholi Road, Fetri, Nagpur 441501, Maharashtra	Member	Yes	Yes
9	Dr. A.K. Malhotra	C-6, SubhavnaNiketan, Road No. 41, Pitampura, Delhi-110034	Member	Yes	Yes
10	Dr. Gurdeep Singh	Centre of Mining Environment, Department of Environmental Science & Engg. Indian Institute of Technology (Indian School of Mines), Dhanbad-826004	Member	Yes	Yes
11	Dr. Parimal Chandra	A/3 Asiyana Housing Complex Maligaon, Guwahati-781011,	Member	Yes	Yes

	Bhattacharjee	Assam			
12	Prof. MukeshKhare	, Department of Civil Engineering, IIT, Delhi	Member	No	No
13	Mr. V. K. Soni	Government of India, Ministry of Earth Sciences, India Meteorological Department, Mausam Bhawan, Lodi Road, New Delhi – 110003	Member	No	No
14	Shri Mantu Biswas	Controller of Mines, IBM Block D, Second Floor, Indira Bhavan, Civil Lines, Nagpur - 440001	Member	No	No
15	Representative of DGMS	Representative of DGMS Head Office, Sardar Patel Nagar, Dhanbad, Jharkhand 826001	Member	No	No

Email

sharath.kr@gov.in

Re: Draft Minutes of the meeting of 15th EAC held during 20-21 April, 2020 for kind perusal and approval

From : satishwate@gmail.com

Fri, Apr 24, 2020 10:18 AM

Subject : Re: Draft Minutes of the meeting of 15th EAC held during 20-21 April, 2020 for kind perusal and approval

To : Sharath Kumar Pallerla <sharath.kr@gov.in>

Approved the minutes of 15 th EAC Non Coal.

Satish Wate
Chairman

Sent from my iPhone

On Apr 24, 2020, at 9:05 AM, Sharath Kumar Pallerla <sharath.kr@gov.in> wrote:

Dear sir,

With reference to the trailing mail, corrections suggested by Dr. Ajay Deshpandey, Dr. Asha Raja Vamshi, Sh. Kundargi, and Dr. Gurdeep Singh have been made and final draft of MoM of 15th EAC of NCM held during 20-21 April, 2020 is attached herewith for kind perusal and approval for uploading on the website. Comments from other members did not receive.

Regards,

From: satishwate@gmail.com

To: "Sharath Kumar Pallerla" <sharath.kr@gov.in>

Sent: Thursday, April 23, 2020 11:49:10 AM

Subject: Re: Draft Minutes of the meeting of 15th EAC held during 20-21 April, 2020 for kind perusal and approval

Excellent! Necessary changes as suggested by Ajay be done in PH. Point 1 , last line read during its life of project be corrected as "during (its to be deleted) life of the project till date. "

Minutes are approved.

Regards.
Dr. Satish Wate
Chairman EAC Non Coal