



Ref : BSE/ OMDC/CS/06-2020/06

Dated : 3rd June, 2020

Compliance Department
Department of Corporate Services
Bombay Stock Exchange Limited
1st Floor, Phiroze Jee, Jeebhoy Towers
Bombay Samachar Marg
Mumbai – 400001

SUB: Compliance under Regulation 51 of SEBI (LODR) Regulations, 2015 i.e Disclosure of information having bearing on performance/operation of listed entity and/or Price Sensitive information, read with Regulation 8 of SEBI (Prohibition of Insider Trading) Regulations, 2015

Belkundi Iron & Manganese Mines (M.L. Area 1276.79 Ha) for enhancement of Iron Ore production to 1.8 MTPA and Manganese Ore to 0.3 MTPA at Villages Belkundi, Nalda, Karakolha, Karkhendra, Uliburu, Tehsil Barbil, District Koenjhar, Odisha.

SCRIPT CODE: 590086

Sir/ Madam,

It is to inform you that Intimation regarding Belkundi Iron & Manganese Mines (M.L. Area 1276.79 Ha) for enhancement of Iron Ore production to 1.8 MTPA and Manganese Ore to 0.3 MTPA at Villages Belkundi, Nalda, Karakolha, Karkhendra, Uliburu, Tehsil Barbil, District Koenjhar, Odisha by M/s Orissa Minerals Development Company Limited – Further consideration for Terms of Reference

[Old Proposal No. IA/OR/MIN/68062/2008 dated 07.09.2017]

[New Proposal No. IA/OR/MIN/24958/2014] ToR.

Kindly acknowledge the receipt.

Thanking You

Yours faithfully

For The Orissa Minerals Development Company Limited

Anu Singh
Company Secretary

Encl: As above

F. No. J-11015/23-204/2018-IA III (V)
Government of India
Ministry of Environment, Forests and Climate Change



3rd Floor, Vayu Block,
Indira Paryavaran Bhawan,
Jor Bagh Road,
Aliganj, New Delhi-110003

Dated: 29th May, 2020

To,

M/s Orissa Mineral Development Company Ltd
Plot No. 271, Ground Floor, Bidyut Marg
Shastri Nagar unit 4, Sail Building, Bhubaneswar, Odisha-751001
Email: aplenkaomdc@gmail.com

Subject: Subject: Belkundi Iron & Manganese Mines (M.L. Area 1276.79 Ha) for enhancement of Iron ore production to 1.8 MTPA and Manganese ore to 0.3 MTPA at Villages Belkundi, Nalda, Karakolha, Karkhendra, Uliburu, Tehsil Barbil, District Keonjhar, Odisha by M/s Orissa Mineral Development Company Ltd. - Further consideration for Terms of Reference [Old Proposal No. IA/OR/MIN/68062/2008 dated 07.09.2017; New Proposal No IA/OR/MIN/24958/2014]-ToR Regarding

Sir,

The proposal of M/s Orissa Mineral Development Company Ltd is for enhancement of Iron ore production to 1.8 MTPA and Manganese ore to 0.3 MTPA from the mine lease area of 1276.79 Ha located at Villages Belkundi, Nalda, Karakolha, Karkhendra, Uliburu, Tehsil Barbil, District Keonjhar, Odisha. The mine lease area lies between latitudes 22°07'41.61" N to 22°09'45.31" N and longitudes 85°23'03" to 85°26'05.60" E. The mine lease area falls in the Survey of India Topo-sheet No: 73 F/8 & 73F/12.

2. The above proposal was submitted online vide proposal no IA/OR/MIN/68062/2008 dated 07.09.2017 for grant of Terms of references as per the provisions of the Ministry's notification, S.O.804(E) dated 14th March, 2017 under the EIA notification, 2006. The said project/activity is covered under category-A of item 1(a) of the Schedule to the EIA Notification, 2006 as amended, and requires prior EC from the MoEF&CC. As the application was not made in correct format the PP submitted the revised Form-1 & PFR.

3. The proposal was considered in the 11th EAC meeting held on 31st July-2nd August 2018 wherein PP did not attend the meeting, further the proposal was reconsidered in the 17th EAC meeting held on 29-31st January, 2019 wherein the Committee deferred the proposal for want of requisite information. The Project proponent submitted the information on 24.12.2019 and accordingly, proposal was considered in the 30th EAC meeting held on 3rd -4th February, 2020 wherein the Committee recommended the proposal for ToR.

ToR- M/s OMDC- Belkundi Iron & Manganese Mines (M.L. Area 1276.79 Ha)

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4. The PP submitted letter No/ III(A)SM-04/2010/1072/SM, Bhubaneswar dated 03.02.2020 issued by Department of Steel & Mines, Govt. of Odisha wherein it has mentioned that initially the Iron ore **mining lease** was held under mining lease by M/s OMDC Ltd w.e.f 01.01.1941 to 15.08.1956. The 1st renewal of mine (RML) for Iron Ore over an area of 1276.79ha expired on 15.08.1986 during the renewal period supplementary lease deed was executed for inclusion of Manganese Ore with original lease deed for iron ore. The 2nd RML was executed on 12.11.2002 for a period of 20 years w.e.f. 16.08.1986 to 15.08.2006. Whereas the 3rd RML application was filed by OMDC on 12.08.2005 for Iron and Manganese Ore within the prescribed period u/r 24A (1) of MC Rules, 1960 and the lease has been allowed revival by proceeding No. 10235SM dated 20.12.2019. Whereas the Mineral (mining by government company) Rules, 2015 have been notified by Ministry of Mines, Govt. of India on 3.12.2015 and further amended on 27.09.2019. The State Government extended the period of mining lease for 20 years from 16.08.2006 to 15.08.2026.

5. PP reported that the total ML area for Belkundi mine is 1276.79 Ha and out of which, Forest land is 448.276 Ha (R.F. - 182.556Ha + K.F. - 265.720Ha) and Non-forest land is 828.514 Ha (Govt. Land 341.331ha + 487.183ha). PP reported that the Stage-II forest clearance was granted vide letter No.8-88/96 dated 26.02.1998 over an area 384.54Ha excluding Safety zone forest area of 63.736 Ha, for the period up to 14.08.2006. As per Rule, one year before expiry of Lease, Diversion of forest clearance proposal was applied on 16.11.2019. As per MoEF guideline, Diversion of forest proposal was applied for the entire forest area of 448.276 Ha. The proposal was return back by the PCCF office Govt. of Odisha and advises to submit fresh on line application, which is under process. The PPCF, Odisha vide its letter dated 16.11.2019 wherein PP was asked to apply online for Forest Diversion proposal along with other documents including Hal and Sabik status of non-forest land which is under process.

6. PP submitted that Belkundi is an open cast mine, the mining operations shall be carried out by drilling, blasting followed by excavation of loosened material by hydraulic shovels and loading them onto tipper trucks. Loosening of the hard rock mass will be effected by the blasting of jack-hammer as well as DTH drilled holes. Shovels of 0.9 m³ & 2.0 m³ capacity will be utilized for excavation & loading of blasted rocks. Rear dump trucks of 20MT & 35MT capacity will be used for transportation of ore and waste. This Belkundi mining project is working for both iron as well as manganese ore which is planned to mine out iron ore @1.8Mt/annum and manganese ore @0.3Mt/annum with the deployment of heavy earthmoving machines on single shift basis while manganese ore will be worked manually on single shift basis, during the mining operations the height & width of benches of iron ore mines will be 6m & 10m respectively in order to ensure the safety in the mining operations. Similarly, the height & width of the benches for Manganese ore will be 6m & 10 m respectively. PP also submitted that during the mining operations the total OB/SB/IB will be generated 503216(m³) for Iron ore and 1035838 (m³) for manganese ore.

7. PP submitted that land use at the conceptual stage will be the 477.079 Ha under excavation, 0 ha under Storage for Topsoil, 92.058 Ha under Overburden dump, 34.049 Ha under Mineral Storage, 58.343 ha under Infrastructure (office, rest shelter, hutting, blasting shelter etc.), 9.905 Ha under Road, 3.124 Ha under Railways, 25 Ha under Green belt (safety zone), 6.618 Ha under Others (State

Highway), and 570.614 Ha Un-Disturbed Area. PP submitted that water requirement is 200 KLD.

8. There is no location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger/Elephant reserves (existing as well as proposed) within 10 km of the mine lease. The site specific Wild Life Management Plan is also prepared by PP and approved by PCCF (Wild Life), Govt. of Orissa vide letter no-7495/1WL(C)SSP-266/2012 dated 30.09.2014.

9. PP submitted the past production details from 1992 to 2017-18 by the Deputy Director, Mines, Joda circle, Keonjhar vide memo no 474/Mines, dt 20.02.2019 as per it The Committee observed that PP had gone for excess production of Manganese ore and Iron ore of 1993-1994 base year during the year 1994-1995 (for Manganese ore) and 2001-2002 (for Iron ore) without prior Environmental Clearance under EIA Notification 1994. Hence instant mining proposal is under violation since 1994 and confirmed that the instant proposal confirmed the case to be of violation of the EIA Notification, 2006 and as per the provisions of the MoEF&CC Notification dated 14th March, 2017. PP also submitted the demand notice no 5144/Mines, dated 23.10.2017 from the Office of the Deputy Director of Mines, Joda Circle to pay sum of Rs. 3249279/- (Rupees Thirty-Two Lakh(s) Forty-Nine Thousand Two Hundred Seventy-Nine Only) towards compensation under Section 21(5) of MMDR Act, 1957 for production without the Forest Clearance as rationalized by the CEC, in Pursuance to the judgment dt 02.08.2017 of Hon'ble Supreme Court in the matter of W.P. (C) No. 114/14 Common Cause vs UOI and others and Demand notice no.5248/mines, dt 23/10/2017 by the Deputy Director, Mines, Joda circle, Keonjhar to pay sum of Rs. 68622219/-(Rupees Six Crore Eight Six Lakh(s) Twenty-Two Thousand Two Hundred Nineteen Only) towards compensation under Section 21(5) of MMDR Act, 1957 for production without/in Excess of the Mining Plan & CTO as rationalized by the CEC, in Pursuance to the judgment dt 02.08.2017 of Hon'ble Supreme Court in the matter of W.P. (C) No. 114/14 Common Cause Vs UOI.

10. PP reported that the total Project Cost is Rs. 121.08 Crores and the Belkundi mine will generate employment of 778 person majority of whom will be local villagers.

11. The EAC, after detailed deliberations in the meeting held on 3rd-4th February 2020 on the proposal in terms of the provisions of the MoEF&CC Notification dated 14th March, 2017, confirmed the case to be of violation of the EIA Notification, 2006 and recommended for issuing Standard Term of Reference along with the following specific Term of Reference and additional specific conditions as recommended by CSIR-NEERI on carrying capacity study as per Annexure I for undertaking EIA and preparation of Environmental Management Plan (EMP).

I. Additional ToR (A):

- 1) PP shall submit credible proof of action under section 19 of EPA, 1986 by the State Government/SPCB. No consent to operate (CTO) shall be given by SPCB till the project is granted EC.
- 2) The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and

community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.

- 3) Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and industrial Research (CSIR) institution working in the field of environment.
- 4) Preparation of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
- 5) The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter 13 in the EIA report by the accredited consultants.
- 6) Budget of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be completed within three years and to be prepared accordingly
- 7) EIA/EMP report shall be prepared taking cognizance and impacts (Cumulative) of the adjacent mines leases, if any.
- 8) In case of violation of undertaking by way of affidavit to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated, the ToR/Environmental Clearance shall be liable to be terminated forthwith.
- 9) One season fresh base line data shall be collected for preparation of EIA/EMP reports.
- 10) The PP is required to conduct Public Hearing as per EIA notification, 2006.
- 11) The PP should also address the all the issues raised during the already held public hearing along with commitments made and with fund provision to address above issues in tabular form to be submitted along with EIA/EMP report.
- 12) Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report.

- 13) Detailed hydrological study to be carried out in core and buffer zone of the project as per GEC 2015 guidelines.
- 14) The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25.10.2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.
- 15) Details of benefit accrued during the violation period along with capital cost of the project are to be submitted.
- 16) Mine plan as approved by Indian Bureau of Mines to be submitted.
- 17) DGMS permission is to be submitted for blasting at project site, if any.
- 18) Details as per Annexure XI as mentioned in the agenda shall be submitted.

II. Additional ToR (B):

- 1) The total excavation (minerals, waste, top soil) to be excavated needs to be brought out clearly in production and development plan. The mineable reserves, blocked reserves need to be mentioned along with life of mine. PP should add an annexure showing the year-wise production and development plan (tabular format) till the end of life of mine. The location of mineral stacking, dumping sites, plantation and other infrastructures needs to be brought out clearly in the mining plan. PP needs to bring out the waste to be generated during the entire life of mine and where it will be dumped/backfilled.
- 2) PP should provide in the EIA Report details of all the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after grant of EC.
- 3) PP should submit the revenue plan for mining lease, revenue plan should be superimposed on the satellite imagery clearly demarcate the Govt. land, private land, agricultural land, Forest Land etc.
- 4) PP should submit the real-time aerial footage & video of the mining lease area and of the transportation route.
- 5) PP should submit the detailed plan in tabular format (year-wise for life of mine) for afforestation and green belt development in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale

the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted.

- 6) PP should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. 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.
- 7) PP should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.
- 8) PP should submit the year-wise, activity wise and time bound budget earmarked for EMP, occupational health surveillance & Corporate Environmental Responsibility needs to be submitted. The capital and recurring expenditure to be incurred needs to be submitted.
- 9) PP should submit the measures/technology to be adopted for prevention of illegal mining and pilferage of mineral.
- 10) PP should submit the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory. The mitigation measures to be taken for avoiding manganese poisoning needs to be submitted.
- 11) PP should clearly show the transport route of the mineral and protection and mitigative measure to be adopted while transportation of the mineral. The impact from the center line of the road on either side should be clearly brought out supported with the line source modelling and isopleth. Further, frequency of testing of Poly Achromatic Hydrocarbon needs to be submitted along with budget. Based on the above study the compensation to be paid in the event of damage to the crop and land on the either side of the road needs to be mentioned. The PP should provide the source of equations used and complete calculations for computing the emission rate from the various sources.
- 12) PP should clearly bring out that what is the specific diesel consumption (Liters/Tonne of total excavation & mineral) and steps to be taken for reduction of the same. Year-wise target for reduction in the specific diesel consumption needs to be submitted.

- 13) PP should bring out the awareness campaign to be carried out on various environmental issues, practical training facility to be provided to the environmental engineer/diploma holders, mining engineer/diploma holders, geologists, and other trades related to mining operations. Target for the same needs to be submitted.
- 14) The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.
- 15) The PP should ensure that only NABET accredited consultant shall be engaged for the preparation of EIA/EEMP Reports. PP shall ensure that accreditation of consultant shall be valid during the collection of baseline data, preparation of EIA/EEMP 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.
- 16) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
- 17) All the certificates viz. Involvement of Forest land, distance from protected area, list of flora & fauna should be duly authenticated by Chief Wildlife Warden & Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.
- 18) The conservation plan for the elephant needs to be submitted.
- 19) State Government concerned shall ensure that mining operation shall not commence 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 the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.

III. Standard ToR (Mining):

- 1) Year-wise production details since 1993-94 should be given, clearly stating the highest production achieved in any one year prior to 1993-94. 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 1993-1994. The production details need to submit since inception of mine duly authenticated by Department of Mines & Geology, State Government.

- 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/topo-sheet, 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 Topo-sheet 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 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.

- 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the Araval 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