**ANNEXURE-I**

**Scrutiny Comments on examination of draft Review of Mining Plan submitted under rule 17 (2) of MCR,2016 in respect of Minche Budruk Bauxite Mine of M/s Panditrao Mines and Minerals Pvt. Ltd. over an extent of 98.00Ha situated in Minche Budruk Village, Bhudargad- Taluka, Kolhapur- District of Maharashtra State for the period from 2018-19 to 2022-23.**

**GENERAL**

1. The instant submission of Review of MP should be under Rule 17(2) of MCR-2016. and, PMCP should be submitted as per the rule 23 of MCDR, 2017.
2. The brief introductions of the mining lease should be discussed clearly stating the status of Mining lease, all statutory clearances etc.
3. All the annexure to be properly indexed with numbered and paged.
4. Self-attested copy of qualification & experience certificates as required for the person to prepare mining plan/Review of Mining Plan/ its modification under MCR'2016 should be enclosed. The experience certificate should clearly indicate the name, designation, pay scale, period and nature of experience gained by the employee.
5. Lessee is a Ltd. company/firm. Hence, list of board of directors duly certified by competent authority along with address/contact nos. to be enclosed. Also, Undertaking regarding working/interest of board of directors/partners in other firms/company/organization should be given.
6. In enclosed copy of resolution of lessee Co.'s Board regarding nominated owner of the mine, signing director name is not mentioned.
7. Para 2. b): surface right acquired in ML area by lessee to be clarified along with documentary proof as enclosure. Details of name, address, contact number and e-mail id of the agency, who had carried out the D.G.P.S. survey should be given. Further, boundary pillars to be maintained as per the standard specifications as indicated in MCR' 2016.
8. Para 3.3:Review of exploration, ROM production, Waste generation, D&P, R&R, and Afforestation etc. to be carried out properly with reason/justifications of % deviation, if any, up to preceding month of submission of this RMP. Table for P&D to be re-furnished after due correction.
9. Review of production should be given ROM to ROM in same fashion for both parameters proposed and achievement. Further, figures should be matched with the corresponding annual returns.
10. Reclamation work was not carried as per the approved documents. The sufficient proposal to be given in the current proposal to compensate the backlog.
11. The plantation as proposed in the approved documents was not maintained properly in the field. Figures, to be refurnished based on the actual survival of plants. The sufficient proposal to be given in the current plan to compensate and Eco-development in the area. Further, substantial preventive measures to be taken to maintained the survival rate of the plants.
12. Plantation figures as furnished in the annual returns are not supported by the review figures, to be justified.
13. The existing area under different geological axis to be given in the tabular form.
14. Exploration was not achieved as per the approved MMP. Therefore, sufficient exploration proposal to be given in the current proposal to establish the mineral content as per the MEMC rule, 2015.

15. There were no any exploration reported in the last approved plan however the augmentation of reserve as shown in the current submission to be justified.

**MINING**

16. Sequence of different mining operations should be described in brief here.
17. Mine Design parameters to be mentioned in the text. Back-up calculation of Development & Production (D&P) for the proposed period to be furnished.
18. Year-wise tentative Excavation in Cubic Meters to be indicated from (b) In-situ excavation as per guideline. Then, a NOTE to be added below the proposed year wise excavation summary Table regarding tentative tonnage as arrived considering Recovery % and Bulk-Density (Tonnage factor) based on time series data and samples test. Documentary proof for bulk density/ T.F. and Recovery % considered to be submitted. It should be from NABL accredited lab. or Govt. lab. Further, table to be re-furnished as discussed in the while field inspection.
19. Excavation/production of ROM should be indicated clearly in the table. Further, figure for ROM/waste ratio to be correctly furnished.
20. Calculation of subgrade drilling to be technically justified. Calculation for loading and hauling equipment to be given by considering the efficiency parameters.
21. Location of working proposal to be given as per the updated pit design.
22. The in-situ and float ore excavation proposal to be given on the basis of mineral conservation, systematic and scientific mining. Proposal may be refresh as discussed in field.
23. Working proposal to be given after leaving statutory barrier from the lease boundary. Adequacy of machinery deployment and allied to be furnished based on the proposal.
24. Year wise working proposal for five year as given in the text should be supported by the respective plan & sections.
25. Dump re-handling quantity to be included in disposal of waste. Substantial quantity of OB/Waste is proposed to be generated for which disposal sites are to be shown clearly.
26. Sufficient proposal for protective measures to be given to substantiate the environmental requirement.
27. R & R to be discussed properly with existing as well as proposal.
28. Para 3.d):- Rainwater management plan i.e. drainage plan (Flow chart) along with arrangement for arresting solid wash off should be given. Existing arrangement and proposal for protective measures to control wash-off from flow of rain water should be given in quantified terms.

**STACKING OF MINERALS REJECT/ SUB-GRADE AND DISPOSAL OF WASTE**

29. Generation and utilization of waste to be given systematically and to support the R&R requirement.
30. Table for MR to be suitably corrected.
31. Treatment of float ore area to be proposed systematically.
32. Year-wise distribution of reclamation & rehabilitation to be described.

**OTHER**

33. a) Site services:- Basic welfare requirement were not given in the site office and the workers stayed there. Sufficient infrastructure and their maintenance to be committed. This includes the details of welfare infrastructure in the site office and their maintenance and ODF.
34. b) Sufficient statutory and technical manpower to be employed to support the safe and scientific mining.

**PMCP**

35. PMCP to be discussed in accordance with the rule 23 of MCDR,2017. Further, Mitigation measures of impacts associated with mining based on EIA i.e. mainly related to air, water, noise, vibration, land, aesthetics etc. to be elaborated.
36. Details of summary of existing area for mined out land, R &R of in-situ area as well as float area and other to be given in tabular form.
37. Table furnished in year wise proposal for item no. 8.3 to be discussed properly. This inclusive of cumulative no. of plants and others features to be given in the table for year wise afforestation and other protective measures.
38. Para 8.4: Disaster management to be elaborated with specific responsibility of mines management & employees with code of practices. The details of contact numbers of responsible persons including role of external agency should be discussed.
39. Financial Assurance to be submitted as per the rule 27(1) of MCDR, 2017.

**Enclosure:-**

40. All the annexure to be properly indexed, numbered, paged and signed by the TQP.
41. The copies of approval letters of earlier approved Mining plans should be attached with proper and appropriate reference in the text.

**PLATES:-**

42. Rule 31, 32 & 34 of MCDR, 2017 and convention of MMR-1961 to be followed for preparation of plans & sections.
43. All plans to be prepared based on recent and accurate survey and to be correct as per existing surface features & mine profile. Such plans should be prepared by the qualified Surveyor and certified by the mining engineer of the mine for its correctness.
44. All relevant plans to be re-prepared/modified in view of above comments.
45. P &D plan to be re-casted based on the discussion in the field. Legends should be clearly shown as proposed.
46. Environment Plan: The plan to prepared showing details as per MCDR 2017. All existing surface features beyond the 60m of lease boundary to be shown in detail. Monitoring stations at the strategic points in core & Buffer zone for different environmental components should also be shown.
47. Reclamation plan: A reclamation plan showing all back-filling, R&R measures, Environmental protective measures etc. to be enclosed as per Guideline/Format of "IBM manual on appraisal of Mining Plan-2014".

48. Financial Assurance Area Plan- The plan should be updated & modified as per above scrutiny. The land used details should be given specifically as table & text. Proposed land use to be shown clearly in distinct colours.

- Para 1.e: Earlier exploration carried out so far in the lease area should be summarized as per table below and given in the text. Dated should be updated based on recent surveyed plans.

| ***Total Lease area:*** | | | | | | |
|---|---|---|---|---|---|---|
| Item of information | Lease area explored as per UNFC norms (in Ha) as on dt… | | | | | Remarks/ Comments including reasons for not carrying out the exploration as per UNFC norms. |
| | ***Total Lease area*** = A+B+C+D+E | | | | | |
| | G1 Level | G2 Level | G3 Level | Explored and found non-mineralized with level of exploration (Remarks) | Unexplored lease area | |
| | A | B | C | D | E | |
| Area as per level of exploration | | | | | | |
| No. of BH Drilled | | | | | | |
| No. of BH considered for Resource Estimation. | | | | | | |
| Meterage Drilled | | | | | | |
| Grid Interval | | | | | | |
| Scale of Mapping | | | | | | |
| **Reserve estimated after above exploration as on dated :** | | | | | | |
| **Remaining Resource after above exploration as on dated:** | | | | | | |
| **Total Reserve/Resource after above exploration as on dated:** | | | | | | |

- Detailed estimation sheet for reserve and resources need to be furnished showing sectional area as per UNFC category, influence, BD, recovery factor, location on plan & sections etc. The basis of bulk density and recovery factor should be given on the field tests conducted for different grade of minerals as well as report from authenticated lab may also enclosed. Test result on moisture contents may also be included. Cut-off grade based on international/ domestic market conditions, mining and processing losses i.e. generation of tailing etc may also be considered for estimation of reserves & resources.
- Geological reserves & Resources have to be shown in table to compare as per previous approved plan and as on now. How much reserve has increased or depleted

to be explained. Instead of 01.02.2018, it should be shown as 01.04.2018. Area-wise G-1, G-2, G-3 category has to be shown and per year how much area will be converted from G-2/G-3 to G-1 by exploration during this plan period.

- No proposal of exploration are not adequate and additional exploration has to be proposed in working pit also to know the existence of mineral as well as its UNFC compliance has to be planned. Exploration should be proposed upto G-1 level in entire mineralized area so as to satisfy the provisions of Rule 12(4) of MCDR 2017. Exploration has to be planned based on type of deposit and various intrusion etc. Many sections are not having sufficient Boreholes and many boreholes are in complete to find out the contact zone.
- In plan & section the exploration has been proposed, whereas in text it is not discussed. Based on proposal Reserves & Resources are estimated.
- Present pit dimension with length, breadth, RL, depth, benches in Ore & waste has to be shown in table format for all the existing pits, dumps & backfilled area. Number of waste and mineral reject dumps with size of each dump i.e. L X W X H and total quantity of waste material in the dumps has to be given.
- Last Reserves estimation has been done on 01.04.2013 & recent is as on 01.02.2018. In between said period the Reserves has reduced by 1,28,632 tons only, whereas production achieved in same period is 17,64,166 tons. Hence these needs to be clarified.
- Water course & Electric line is passing inside the Lease area, safety barrier zone has not been given, hence it has to mention in text & plan. Ore below this safety barrier zone has been considered as reserves instead of Resources. UPL, UNFC code & reserves has to re-estimate and re-draw.
- The ore which is blocking in 50m safety zone from Nalla & electric line should estimate under remaining resources. In some of the sections it is observed that ore is estimated under mineable reserves within 50m safety zone also which cannot be considered.
- In the 50m safety zone barrier there should be no proposal for dumping and stacking the minerals.
- The topography of the lease area is not discussed properly. Borehole Collar RL are mismatching with plan & text from previous approved plan from 4m to 11m.
- Production plan has not designed properly, i.e, Production has been proposed in nalla and in unexplored area. In most of sections production has proposed in G-2 category. Resources should not be mined and proposal has to be made only for reserves. Therefore Production plan has to be revised based on updated UNFC category, UPL.
- Borehole-05 was inside the pit during the 2013 and at present it is shown in the virgin area. Achieved production quantity and pit profile are mismatching. This needs to be clarified.
- Using single Boreholes or without boreholes, section has drawn and ore is considered as G-2. As per Minerals (Evidence of Mineral Contents) Rules 2015, it has to be considered as resources only. Year wise Production proposed area has no sufficient boreholes to prove the G-1 category ore, hence the proposal area to be re-changed on the proved area. Production has proposed beyond the Borehole.

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