

SCRUNITY COMMENTS ON THE MODIFICATION TO THE APPROVED MINING PLAN IN RESPECT OF ITAGI LIMESTONE MINE, OVER AN EXTENT OF 519 HA, SUBMITTED BY M/S. ORIENT CEMENT LIMITED, SITUATED IN ITAGI AND MOGLA VILLAGE, CHITTAPURTALUK, KALABURAGI DISTRICT OF KARNATAKA STATE

The final submission of Text, Annexures and Plates both in soft and hard copies are to be done specifically in accordance with IBM Circular no. 1/2021 and FAQ on the Mining plan template published at IBM website following both in toto. The final copies submitted should be digitally signed by the Qualified person and the Nominated owner.

COVER PAGE (Pg-1)

1. The heading may be corrected as "Modification to the approved Mining Plan including progress mine closure plan". The ML no also to be mentioned. The period of modification to be corrected as **2021-22 (From Dec-21 to March-22) to 2024-25.**

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2. Part-B with heading "Annexures" should be added and the specific annexure details and page no to be provided. Part-C with heading "Plans & Sections" to be also added and the specific plate no details to be provided. The Excel format of FAQ may be referred.

CHAPTER-1-GENERAL INFORMATION (Pg. 3-7)

3. i) Para-1.1- Lease details-(Pg-3)-Under the row "Name of associated minerals"- "Nil" may be mentioned as shaly limestone is Mineral and not an associated mineral.
ii) Para 1.1.1-Initial/ Subsequent lease grant details-(Pg-3)- The reference of the lease deed enclosed as annexure to be given.
iii) Para 1.1.2: Mining Plan submission criteria details-(Pg-3)-a) Under type of document "**Modification of Mining Plan**" to be mentioned as per the dropdown options available in the format and specific reasons for modification pointwise, to be mentioned.
b) The period for which modification is proposed to be corrected as "2021-22 (From Dec-21 to March-22) to 2024-25."
iv) Para 1.2: Land ownership details-(Pg-4)- The details related to village & Taluka have not been given under the row of Sl. no 3. All the details related to Khasra no, type of land, area etc as provided in Annexure no 3 to be also checked w.r.t the State Govt. Approved lease sketch and corrections if any to be incorporated.
v) Para 1.3.1- Approval of earlier mining plan & its subsequent review (Pg-4)- All IBM approval letters for Mining plan to be enclosed as Annexure and reference to be given under the Para. The details under 1st Row are not given correctly, under "from" and "to" column "2015-16 & "2019-20" to be mentioned respectively.
vi) Para 1.3.2- Partial Surrendered Area (Pg-4)- There is no partial surrendered area involved after commencement of mining operations and accordingly under the para it should be specifically mentioned "**NIL**".
vii) Para 1.3.3- Transfer of lease area (Pg-4-5)- Under this para it should be specifically mentioned "**NIL**".
viii) Para 1.3.4.1- Environmental Clearance-(Pg-5)- The reference of the annexure to be given under the para.
ix) Para 1.3.4.2- SPCB Approvals-(Pg-5)- The consent order, no AW-317304 dated 27.02.2020 as mentioned in the para to be also enclosed in annexure and reference to be given.
x) Para 1.3.4.4- Land Acquisition details-(Pg-5)- The unit (Hectare etc.) to be also mentioned under the area row
xi) Para 1.3.5- Mine Location Details- (Pg-5-6)- The toposheet no may be corrected as 56 G/4 as per the last approved document (Pg-8). The Key plan have not been prepared, the same is to be prepared and plate reference to be given under the para.
xii) Para 1.3.5.1- The pillar co-ordinates are not matching with the DGPS Lease sketch as approved by State Govt. (Plate-10). The pillar co-ordinates as given in DGPS Lease sketch and approved by the State Govt to be given under this Para.
xiii) Para-1.3.6- Owner/Nominated Owner Details-(Pg. 6-7)-The Board Resolution nominating the Owner attached with the document (Annex-10) is of 27th March 2015. The latest copy of the resolution of Board of Directors nominating the Owner under the Mines Act 1952 /The Occupational safety, health and working conditions code 2020 and Mines and Minerals (development and Regulation) Act 1957 and rules made there in should be enclosed and details in this section should be given accordingly. Also, a copy of the PAN of the nominated owner to be enclosed and reference to be given. The updated list of members of Board of Directors should also be enclosed and reference to be given in this Para.
xiv) Para-1.3.7- Qualified Persons Details-(Pg-7)- The Qualification certificate of "Shri Vijay Kumar" has not been enclosed in Annexure-14. The Qualification certificate of QP in accordance with Rule 15 of M(OAHCEM) concession Rule 2016 should also be enclosed. The PAN of QP's to be also enclosed as annexure and reference to be given under this Para

CHAPTER-2-GEOLOGY AND EXPLORATION (Pg. 7-25)

4. The chapter is to be started from the new page after ending of the previous chapter, as per format.
5. The surface plan has not been prepared properly. It is to be updated as per the latest survey and all the features to be incorporated in surface plan as per Rule 32(1)(a) of MCDR 2017. It is found that HT Electric Power line, Nala, village Road, village, Railway line etc. is present within the lease area but the features along with the safety zone as per the statutory norms have not been demarcated on the surface plan. Also 7.5 m safety zone have not been demarcated prominently. The 7.5 m safety Zone all along the Mine Lease boundary should be prominently demarcated on surface plan and all other related plates. The other safety zone for Nala/Road/Villages/Electric power line/Railway line etc inside the ML area as per the statutory norms should also be demarcated prominently along with the details of all the safety zone, in the index. All the boundary pillars position and co-ordinates should be as per the DGPS lease sketch duly certified by the State Government. The surface plan to be corrected accordingly and replicated in all other plates.
6. i) **It was observed during examination of the Geology Chapter that the exploration for the entire potentially mineralized area have not been completed at detailed G-1 level, both laterally and vertically in accordance with Rule 12(4) of MCDR 2017.** At all the sections A-A', B-B', C-C', D-D', E-E', F-F', G-G', H-H', I-I', J-J', K-K', L-L' & M-M', all the boreholes have been stopped in the mineralized zone itself (Shaly/Massive/Siliceous Limestone) which indicates the vertical continuity of the deposit have not been explored. Further in some of the sections like C-C', F-F', H-H' and along some other sections also the boreholes have not been drilled within 200m or closer in accordance with Minerals (Evidence of Mineral Contents) Rules, 2015
ii) Accordingly, no exploration proposal in the current submitted document is not acceptable. Since exploration has not been done over the entire lease area in accordance with Rule 12(4) of MCDR 2017 to bring the entire mineralized area to detailed G-1 level of exploration, the

same needs to be done in the current plan period. Further boreholes have not been drilled to establish the ore body at depth also w.r.t the threshold value notification of IBM i.e., CaO-34 % (Min) & MgO-5%(Max) for Limestone since maximum boreholes have been stopped at the ore zone itself. The depth of exploration should be up to the discontinuance of the ore body and it shouldn't be stopped at mineralized zone

ii) **The Geological sections have not been prepared as per the guidelines of the Minerals (Evidence of Minerals Contents) Rules 2015.** The Geological section should be specifically prepared w.r.t to the borehole logs for the drilled exploratory boreholes. For G-1 stages of exploration the depth continuity of mineralization may be considered limited to the depth up to which direct evidence of mineralization is established and lateral extension to be considered for Resource assessment in any case shall not be more than 50 % of the grid spacing of the probe points in accordance with Minerals(Evidence of Mineral Contents) Rules, 2015. The sections should distinctly show the ML Boundary, 7.5 m safety zone from ML Boundary, Safety Barrier for Nala/Road/Village/Power line/Railway line , UPL (Ultimate pit limit), current pit profile(as per the latest survey) Boreholes as per lithologs etc.

iii) The complete lithologs of 134(100 core+ 34 DTH) numbers of boreholes have not been provided in Annexure-18. Further the portion of the boreholes whose Form-J are enclosed are also not relatable with the respective boreholes in the Geological section since the major radicals (CaO, MgO)chemical analysis (%) have not been provided as per the Form-J format of MCDR 2017. The additions/corrections to be incorporated in Form-J accordingly and details of all the 134 boreholes to be enclosed as annexure.

iv) **The Lessee is required to submit the State Government and the Indian Bureau of Mines, a Geological Study Report prepared in the manner specified in the Minerals (Evidence of Mineral Contents) Rules, 2015, within three months after the completion of the exploration work as per Rule 12(4B) of Mineral Conservation and Development (Amendment) Rules, 2021, accordingly all the pending exploration required to be completed in the plan period and all the above-mentioned errors in the Geology are to be rectified. The area under different exploration limits to be reviewed both laterally and vertically and the exploratory drilling required to convert the entire mineralized area to G-1 to be worked out and proposed in the balance plan period.**

7. Para 2.1.2-Details of Physiographic features-(Pg-8)- Certain details under the para have not been provided correctly. Railway track is present adjoining the lease at the northern portion of the lease, accordingly 0.15 km mentioned under the table is not correct. There are also Power transmission lines present in the North western and South western portion of the Lease, the details of the same to be also included. Itagi Village is also present adjoining the Lease, the details of the same to be also included under the heading "Any other specify". The corrections to be incorporated in the table accordingly. Also, all the safety zones within the lease to be prominently demarcated as per statutory norms as mentioned above in scrutiny comment no 5.
8. i) Para 2.1.4.3-Lithology(Pg-10)&Para 2.1.4.4- Mode of Occurrence (Pg-10)- It is mentioned "*The associated limestone minerals are flaggy/siliceous and shaly limestone*" which is not correct. All the limestone having CaO-34 %(Min) and MgO-5%(Max) are major mineral and accordingly the portion to be removed. The Mode of occurrence whether Igneous, Sedimentary or Metamorphic to be given, along with control of mineralization whether stratigraphically, structurally, Chemically, geologically to be also detailed under the Para 2.1.4.4.
ii) Para-2.1.4.5-Extent of weathering-(Pg-10)- The type and depth of weathering zone if any to be detailed in this Para.
v) Para- 2.1.4.7- Extent of Mineralization- (Pg-10)- It should be mentioned in the text "**All the materials analysing equal or more than CaO-34 %(Min) and MgO-5%(Max) above have been considered as Limestone**" as per IBM notification no. C-284/3/CMG/2017 dated 25th April, 2018 for threshold value of Limestone. The physical and chemical characteristics details to be also given specifically under the para. As already mentioned above in Scrutiny comment no 6, the vertical continuity of the limestone has not been established accordingly it is to be mentioned "*the extent of limestone within the ML area is established up to average depth of ___ mRL as per the current exploration data*".
vi) Para-2.1.4.8-Deposit type-(Pg-17-18)- The details have not been given as per the format. The excel sheet format of FAQ may be referred and details may be given in tabular format accordingly. The options available in the dropdown may be checked under the relevant and details regarding strike/trend of ore body etc. may be furnished accordingly.
9. i) Para-2.2.1-Summary of Previous Exploration-(Pg-10)- Since no exploration is carried out in the ongoing plan period, accordingly under "Name of the agency"- NIL is to be mentioned.
ii) Para-2.2.1.2-Geological Mapping- Year to be corrected as "2020-21" and scale to be corrected as '1:2000".
iii) Para- 2.2.1.13- Bulk density-(Pg. 20)- The NABL certification of the laboratory along with the scope of test works for the lab, which includes Bulk density testing has to be enclosed as Annexure and reference to be given under this Para. The bulk density testing for OB to be also carried out and mentioned under the para and supporting documents to be enclosed as Annexure.
iv) Para-2.2.1.14- Area Covered under Exploration-(Pg-13)- The area under different exploration limits should be as per the last approved plan since no exploratory drilling is carried out after the approval of the last document. G-1-408.46 ha, G-2-98.49 ha & G-3-12.05 ha. (Pg-27) of last approved document(RMP)). The corrections to be incorporated under this Para and related annexures and plates.
10. i) Para-2.2.2.1-Geological Mapping- (Pg-14)-The financial year may be mentioned under the column "Year". The Scale may be corrected as "1:2000".
ii) Para-2.2.2.5-Pitting-(Pg. 14-15)-The details of the pit (Length, width etc. are not matching with the details as provided in the last approved document (Pg-25). The "litho unit exposed" have also not been given correctly whether "Limestone/soil etc.). This is to be corrected.
iii) Para-2.2.2.7.1-Core/Non-core drilling-(Pg-15-16)-The Litho-log and chemical analysis details of all the previous drilled 134boreholes as per Form-J format of MCDR 2017 may be enclosed and reference to be given under the para. The borehole database enclosed as

Annexure-18 to be updated/corrected accordingly as per above scrutiny comment no 6(iii). Also, the table is not as per the format. Under the Grand total column "Total meters" column is to be added. Also, under the column "Attach log sheet of each borehole in **CSV/Excel** Format, the CSV/Excel sheet of all the boreholes to be prepared and enclosed as Annexure and reference to be given under the column.

iv) Para-2.2.2.9- Sampling-(Pg-16)-The details under the para is not matching with the details as given in the last approved document (Pg-31-32). The sampling details of all the previous drilled exploratory boreholes as per the format like type of sample (Core/Rock chip), No of samples, Location of sample in Latitude and Longitude (Borehole extent location) to be given in the table. The type of samples for DTH drilling may be mentioned as "Rock Chip" sample. The excel sheet format of FAQ may be referred. The reference of Form -J to be given under this Para. The corrections to be incorporated in the table accordingly.

v) Para-2.2.1.10-Chemical Analysis-(Pg-16)- The sample id's to be given correctly under the Para as per the Chemical analysis report. The chemical and Mineralogical analysis report to be enclosed with all additions/corrections as mentioned above, as per the format and reference to be given under para. The NABL accreditation certificate of the lab to be also enclosed and reference to be given under this Para.

vi) Para-2.2.2.13- Bulk Density-(Pg-17)- The corrections to be incorporated as per the above scrutiny comment no 9(iii) for Para 2.2.1.13. Bulk density for Limestone is mentioned as "2.66" which is to be corrected as "**2.5**" as mentioned in previous Para 2.2.1.13.

vii) Para-2.2.2.14-Area Covered under Exploration(Pg-17)-a) The entire details under 2nd table of the para are given incorrect. In this table the area upgraded under different exploration limits in percentage in current plan period to be reviewed w.r.t the last plan period. Year 1 to be corrected as 2020-21, Year-2 as 2021-22(till Nov-21), Year 3,4 & 5 may be removed as the draft document is submitted for modification of the approved RMP. Since no exploration is carried out in the ongoing plan period from 2020-21 to 2021-22(till Nov-21) and as mentioned above in scrutiny comment no 9(iv), accordingly under column "Area converted to G-1 from G-2, G-3 & G-4", "% increase in G-1 area" will be "NIL". As mentioned above, 408.46 ha is in G-1, 98.49 ha in G-2 & 12.05 ha in G-3, and accordingly it is to be mentioned under column "Remaining area in G-2/G-3". **Further area to be upgraded from G-3 & G-2 to G-1 at depth, to be also specifically calculated and same should be mentioned under Remaining area in G-2 & G-3 along with the calculated average depth. The exploration area limits need to be also reviewed thoroughly as errors are found in the Geology as mentioned above in scrutiny comment no 6 and the balance area under G-2 & G-3 to be calculated in accordance with Minerals (Evidence of Mineral Contents) Rules, 2015.**

b) Under heading "Potentially Mineralized area(Ha)"- 519 ha(408.46(G-1)+98.49(G-2)+12.05(G-3)) as per the current exploration data to be mentioned.

11. Para-2.2.3-Ore Geometry Grade (Pg-15)- The table to be corrected as per the format. "Chemical Parameters heading to be added". The other technical details may be checked w.r.t the above scrutiny comments and corrections if any to be incorporated.

12. i) Para-2.2.4.2- Resource calculation- (Pg-19)-a) **The calculation has not been carried out as per the format in the table under this para. Instead reference of Annexure-22 is given in all columns which is not acceptable.** The Resource calculation is to be done in the table of this para, as per format. The Level of Exploration(G-1/G-2/G-3) along with other details to be added section wise and section wise calculation to be done in the table as per the format. **The Resource calculation is to be done as on 1.04.2021.** All the corrections to be incorporated as mentioned above in scrutiny comment no 6.

b) The Resource calculation is to be done for all Limestone with threshold value of 34 % CaO(Min) & 5 % MgO (Max) in accordance with IBM threshold value notification 2018 and in accordance with Minerals (Evidence of Mineral Contents) Rules, 2015

c) No exploration is carried out after approval of the last document. Accordingly, the total Resource figure as reported in AR 2020-21 & the last approved document should be in line. The complete table under this Para along with calculations to be corrected accordingly.

ii) Para-2.2.4.3- Mineral Resource estimate for conversion to Mineral Reserve- (Pg-20)-a) It is to be specifically mentioned "**The Mineral reserve are estimated from the geological resources by deducting the blocked resources**".

b) It is mentioned "*The Resources which were earlier shown as blocked under powerline in 211 category have been converted into 111 category*" which is not correct and to be removed. **The HT Power line still exists inside the Lease area, accordingly the resources under the safety zone of the same to be kept still under "211"** as per the last approved document.

iii) Para 2.2.4.4- Threshold value & cut off parameters-(Pg-20)- a) Under this Para it is to be specifically mentioned "**Threshold value for Limestone is 34 % CaO (Min)& 5 % MgO (Max) as per IBM notification no. C-284/3/CMG/2017 dated 25th April, 2018.** There is no point providing write up for topsoil, OB, siliceous limestone, massive limestone & shaly limestone separately in the para when specifically, threshold & cut off value of limestone is asked.

b) **The specific Cut-off grade of the limestone (CaO-___% & MgO-___%) irrespective of whether it is massive/shaly/siliceous limestone for the mine is to be arrived based on the feasibility report and this should be supported with detailed calculation in the feasibility report as per the Minerals (Evidence of Minerals Contents) Rules 2015.** The reference of the feasibility report to be mentioned under the para. The para and related annexures to be corrected accordingly.

c) It is to be remembered that all limestone having CaO-34%(Min) & MgO-5%(max) is to be considered for Reserve/resource estimation irrespective of whether it is massive, shaly or siliceous. There will be only one cut-off grade for the limestone of the mine which will be arrived through detailed calculation in the feasibility study. The same is to be specifically mentioned under the para.

iv) Para 2.2.4.5- Mining Factor or assumptions-(Pg-20)- "No Safety zone/barrier zone etc. write up are required under the para". The recovery factor considered for resource calculation is to be written specifically as taken in calculation under Para 2.2.4.3. No other details are required. The para to be corrected accordingly. The supporting "**Recovery study report**" may be enclosed.

v) Para 2.2.4.6- Metallurgical factor or assumptions-(Pg-20)- There are no metallurgical factors assumed accordingly it should be specifically mentioned "**NIL**". No irrelevant write up is required.

vi) Para 2.2.4.7- Cost & Revenue factors (Pg-21)- All the corrections to be incorporated in the feasibility study as per the above scrutiny comment no 9(iii). There is no detailed costing done w.r.t the cost of production, average sale price, cash inflow & outflow to be done. Cost of production should also include Royalty & taxes (DMF, NMET) etc. The feasibility report should be signed by QP. The corrections to be incorporated under this Para and feasibility study report (Annexure-25) accordingly. The Cost of production/ton arrived and the sale price/ton considered in the feasibility study to be specifically mentioned under the Para.

vii) Para 2.2.4.9- Other modifying factors (Pg-21)- 'No other modifying factors have been considered, accordingly "NIL" should be mentioned specifically. The other write up what is given in para is irrelevant and to be deleted.

viii) Para 2.2.4.10- Classification (Pg-21)- Specific information regarding estimation done for Reserve/Resource under different UNFC codes w.r.t the geologic, feasibility and economic viability axis as per UNFC & the Minerals (Evidence of Minerals Contents) Rules 2015 to be mentioned under para.

ix) Para 2.2.4.11- Calculation of blocked resources (Pg-22)- **The calculation has not been carried out as per the format in the table under this para. Instead reference of Annexure-22 is given in all columns which is not acceptable.** The blocked Resource calculation is to be done in the table of this para, as per format. The UNFC code along with other details to be added section wise and section wise calculation to be done in the table as per the format. The reserve blocked below the ultimate pit limit, different statutory safety zones or due to economic constraints assigning the relevant UNFC code to be calculated and given under the para. MEMC Rule 2015 may be referred. The calculation of blocked resource under this para to be corrected accordingly. Also, corrections to be incorporated as mentioned in above scrutiny comments of Geology chapter.

x) Para 2.2.4.12- Calculation of Reserves (Pg-23)- The Reserve calculation have not been carried out as per the format. The section wise calculation with relevant UNFC code along with other details to be carried out and to be mentioned under the table. **The Reserves/resource estimation to be done as on 1.04.2021.** The excel format in FAQ may be referred. Also as already mentioned in above scrutiny comment, the Reserve/Resource estimation to be as per the IBM threshold value. No exploration is carried out after approval of the last document, accordingly the total Reserve figure as reported in AR 2020-21 & the last approved document should be in line after depletion of the production for subsequent month/years. Under the grade column **average grade** is to be specifically given instead of mentioning cement grade or/& subgrade. The complete table under this Para along with calculations to be corrected accordingly. ***The mine being a highly mechanized mine with annual production of 3 million metric tonnes, the Reserve/Resource estimation may also be done parallelly in Slice plan in software method and details may be added in Annexure along with the slice plans in list of plates and the variance may be calculated between output of sectional method and slice plan method.**

xi) Para 2.2.4.13- (Pg-23)- All the corrections to be incorporated under tables in this Para as mentioned above. The Reserve & Resource estimation to be given as on 1.04.2021 as per the format. The Quantity under different UNFC code to be given in "Tonnes" and accordingly under unit of estimation it may be mentioned "Tonnes". The **Average grade** to be specifically mentioned under "non-Forest" column for different UNFC codes, rather than mentioning cement grade/Subgrade. The total Reserve & Resource figure in this para should match with the total resource figure given above in para 2.2.4.2. The corrections to be incorporated in related paras of text, annexures, and plates accordingly.

13. i) Para 2.2.5.1- Geological Mapping-(Pg-23)- The Geological mapping proposal in the scale 1:2000 to be given year-wise for the year 2021-22 (Dec-21 to Mar-22), 2022-23, 2023-24 & 2024-25.

ii) The Para No under heading Trenching to be corrected as 2.2.5.4. The Sl. no under heading Exploratory drilling to be corrected as 2.2.5.5 and subsequent subheadings as 2.2.5.5.1 (Pg-24).

iii) Para 2.2.5.5.1- Core/Non-core drilling-(Pg-24)-a "NIL" **exploratory proposals are not acceptable due to reasons mentioned above in scrutiny comment no 6.**

b) The remaining area under G-2/G-3 as per above scrutiny comment no 10 (vii) for Para 2.2.2.14 needs to be calculated thoroughly. Also, it should be reviewed w.r.t the above scrutiny comment. no 6 where there are number of sections where the exploration has not been completed laterally and vertically in accordance with Rule 12(4) of MCDR 2017. The complete exploratory proposals to be worked out thoroughly to upgrade the entire potentially mineralized area to G-1 both at lateral and vertical extent in accordance with Minerals (Evidence of Mineral Contents) Rules, 2015. The Exploratory proposals to be worked out so that all the ore bands are established. The depth of exploration should be up to the discontinuance of the ore body and no borehole should be stopped at mineralized zone. For the non-mineralized area also, supporting exploratory data is required. The borehole assessment may be done accordingly and the borehole proposals in the balance period year-wise (2021-22 (Oct-21 to Mar-22), 2022-23, 2023-24, 2024-25) is to be proposed accordingly.

c) Core Exploratory drilling to be proposed in mineralized zone for maximum recovery and proper borehole logging and chemical analysis in accordance with Minerals (evidence of Mineral contents) Rules 2015.

d) Tables under Para 2.2.5.5.1 should be corrected accordingly. The corrections to be also incorporated in all related plates and annexures.

iv) Para 2.2.5.7- Sampling-(Pg.25)- The type of sample, no of sample, area covered details year wise etc., for each year as per the proposed exploratory boreholes in accordance with Minerals (evidence of Mineral contents) Rules 2015 to be calculated and given here after incorporating corrections as mentioned above. The sample location extent may also be given under Latitude and Longitude column of the table.

v) The Sl. No under heading Petrology & Mineralogical studies to be corrected as 2.2.5.8.

CHAPTER-3-MINERAL BENEFICIATION/PROCESSING (Pg. 26-31)

14. i) Para 3.3.1- Primary Crushing-(Pg-26)- a) The details as given in this Para and the flowsheet for C&S as attached in Annexure-24 are not matching. Under the flow sheet attached as Annexure-24 only the crushing flow sheet existing inside the lease area is to be given and should have all details in the flowsheet as mentioned under para like type, make, capacity, feed size, product size etc.
 b) The details under this Para and annexure-24 to be corrected accordingly.
 ii) Para 3.5.1-Dry Processing-Screening and Classification-(Pg-27)-a The screen if any used in the existing crushing circuit and if shown in flowsheet, the details of the same may be given. The feed size and the product size and the screen aperture size may be mentioned correctly as per the flow sheet (Annexure-24).
 iii) Para-3.9-Overall water requirement-(Pg-31)- The complete details have not been provided as per format. The quantity of water required in Cum/day for mining & allied activities process like dust suppression, drilling, plantation, domestic purpose like washing, drinking etc. details to be given under this Para. The details regarding disposal of water, extent of recycling and chemical analysis of water should also be given under this Para. The Water balance chart to be prepared accordingly and may be added in annexure and reference to be given under this Para. The overall water requirement should be within the CFO permissible limits. Also, the latest chemical analysis report of water to be enclosed as annexure and reference to be given under Para.
 iv) Para 3.10- Flow sheets and charts-(Pg-31)- i) Under Material balance chart" row the reference of the crushing flowsheet inside the lease area to be given incorporating all corrections as mentioned above. The reference of water balance chart & chemical analysis of water enclosed as annexure to be given under the row " **Any other data**".

CHAPTER-4-MINING OPERATIONS (Pg. 32-46)

15. **In accordance with Rule 34(A)(3) of MCDR Amendment Rules, 2021 the lessee is required to submit processed output [digital elevation model (DEM) and Orthomosaic] images obtained from drone survey of the mine lease area and up to hundred metres outside the lease boundary within six months, before submission of any mining plan document. The same may be submitted in accordance with the provision of the above rule.**
16. i) **Major errors are found in the year wise development and production proposals. The Limestone production have been proposed beyond the EC capacity of 3.0 million tonnes per annum. (2022-23). Even Year 2021-22 proposals are to be checked. It should be clear that Rom production including total dump handling quantity should not exceed the EC capacity. This is the total handling quantity both for ROM and dump handling and not the quantity after the recovery.**
 ii) **The complete calculations in tables under this Para (Para 4.2.2, Para 4.3.2, Para 4.3.3, Para 4.3.4 are haphazard with no detailed calculation for total Section wise & Bench wise calculation with total topsoil, Overburden, ROM Quantity, Recovery (%), Mineral reject quantity, Production main Quantity etc.**
17. i) Para 4.2.1.1-Pits- (Pg-32)- The existing pit details to be given as per the latest survey and should be in line with the land-use as reported in AR 2020-21. Pit-1 should also include the new-pit details that has been started at approx. N-1893540, E-728520 co-ordinate recently. The same should be accordingly demarcated on surface plan.
 ii) Para 4.2.1.2.1-Dump details-(Pg-32)- All the dumps information has not been provided. All the dumps both active/inactive which is inside the lease area details are to be given under the para. The same should be demarcated accordingly with nomenclature on the surface plan.
 iii) Para 4.2.1.2.2-Stack details-(Pg-32-33)- The Stack-ID mentioned is not demarcated on the surface plan. All the Stack-Ids as mentioned in the para should be demarcated on the surface plan and indexed. Corrections to be incorporated accordingly in text and all related plates.
 iv) Para 4.2.1.3- Details of Stabilized dumps-(Pg-33)- Only the details of the dump inside the lease area which has been stabilized with plantation after completion of all reclamation & rehabilitation measures like Toe-wall/garland drain & plantation to be mentioned in the table. OD-4 waste material is being shifted and it doesn't come under stabilized dump. All the stabilized dump with ID's as mentioned in the para should also be demarcated on the surface plan & indexed accordingly.
 v) Para 4.2.2.1- Bench Parameters-(Pg-34)-a **The slope stability report for mine pit to be enclosed based on which the mine design parameters (Bench height, Bench slope angle, overall slope angle etc.) are mentioned.** If the slope stability study for the mine has not been conducted then the same should be initiated from Govt. agencies to assess the overall Geotechnical stability condition for the mine. In the text it should be mentioned accordingly in remarks that the slope stability study will be conducted at the earliest and the report will be submitted to IBM once the study is complete. The supporting documents in such case regarding initiating of slope stability may also be attached as annexure and reference to be given under the para. Also, the bench height, width, Slope angle of haul roads etc. should be checked w.r.t 106(2)(b) permission of DGMS. The 106(2)(b) permission of DGMS (Annex-8) reference to be given under this para.
 b) Overall slope of Pit (degree) to be given year-wise as per the year-wise development & production sections
 c) Year 2021-22 to be corrected as "**2021-22 (Dec-21 to Mar-22)**".
 d) The Max depth of working year-wise as per the respective production & development section to be also mentioned under the column "Max depth of working". Also, the depth of water table to be mentioned in mRL under the column "Depth of Water table". **The EC condition (4) & Specific condition A(xx) to be checked regarding Water table (Annexure-7). It mentions Water table at 340 m msl and the mining activities will not reach the Ground Water table. The Year-wise development & production proposals to be given accordingly in line with the EC conditions.**
 e) The above- mentioned corrections to be incorporated in text of this para & individual Year-wise development & production plan & sections.

- vi) Para 4.2.2.2- Year wise opencast development-(Pg-35)-a) **The complete calculation performed under the table is incorrect.**
- b) The "ROM Quantity" and the total dump rehandling for the respective year should be within the EC limits i.e., **3 million tonnes per annum**, as mentioned above in scrutiny comment no 16. If there is dump workings for any respective year, then proportionately the quantity may be reduced in ROM for respective year and further in subsequent Para(4.3.4) it is to be ensured that in none of the year the **total ROM Quantity(A) + Proposed Dump Handling Quantity(C)** should be within 3 million tonnes per annum.
- c) For the year 2021-22, production may be proposed on pro-rata basis from Dec-2021 to March-2022 after depleting the actual production for the month of April-21 to Nov-21 from the proposed per annum annual production. Also, the proposed per annum Annual production should be within the EC permissible limits as mentioned above. The corrections to be incorporated in all relevant portion of text, tables, annexure and plates.
- d) For the "bulk density of mineral" average bulk density of Limestone, and avg. bulk density of OB as per para 2.2.1.13 to be mentioned. **The Recovery percentage depends on the cut-off grade arrived as mentioned above in scrutiny comment no 12(iii) for para 2.2.4.4.** If the cut-off grade is same as threshold value i.e., 34 % CaO(min) and 5% MgO(max) all the ore is saleable/useable without any Mineral Reject generation, in such case Recovery is 100 %(w.r.t ROM).
- e) If the Cut-off grade arrived is above threshold value, then in such case the limestone generated between threshold value and cut-off grade is not used by the lessee and same may be included in mineral reject and recovery percentage to be arrived accordingly w.r.t ROM. In such case complete detail may be given in subsequent paras as per the format for stacking of mineral reject, Grade of the mineral rejects generated etc.
- f) The top Bench mRL and Bottom bench mRL for the respective working year to be mentioned under the column "Benches" as per the respective year development & production plan & section.
- h) The stripping ratio to be calculated" in tons". Under foot Note it may be specifically mentioned that stripping ratio have been calculated "in tons".
- i) The year-wise proposed excavation should be proposed in-line with the conceptual plan.
- j) The **development & production sheet** to be prepared accordingly in excel format incorporating all details & corrections as mentioned above. Annexure-23 enclosed is incomplete and calculations are not proper. **The detailed year-wise development and production calculation sheet bench & section wise should be prepared with all details as mentioned above and enclosed as annexure and reference to be given under para.** The corrections to be also incorporated in all relevant para of the text, annexures and plates.
- k) All corrections in the related calculations, plan sections, annexures to be also made as per the above scrutiny comments of the Geology Chapter (1.0).
- l) The details in the table of these paras to be given accordingly as per the development & production excel sheet.
- vii) Para 4.2.2.3-Transportation & Hauling Equipment- (Pg-36)- The AR 2020-21 mentions, 10,000 litres water tanker. The details provided under the table is not as reported in AR 2020-21.
18. i) Para 4.3-Material Handling-(Pg-36)-Para-4.3.1-a) The Slope stability report of the mines have not been enclosed, the details of the same should be mentioned under this para as per above scrutiny comment no 17(v).
- b) The recovery study report as mentioned in above scrutiny comment no 12(iv) may be enclosed. Since dump working is also considered the Recovery study report of dump workings to be also enclosed.
- c) It was observed during last site inspection, that the lower benches couldn't be worked in Pit no-1 due to water accumulation/seepage at bottom benches due to which there was deviation in the lateral extent of northern pit. The Lessee was advised for conducting Hydrological study to know the overall Hydrological features inside the mine Lease area. Accordingly, if Hydrological study has been initiated, the same may be mentioned under this para and supporting document may be enclosed.
- d) The corrections/additions to be incorporated in Bulk density study report (Annex-20) as mentioned above in scrutiny comment no 9(iii).
- e) The 106 (2) (b) permission from DGMS as per MMR 1961 annexure reference to be given under "Any other Study Report".
- ii) Para 4.3.2-Insitu Mining-(Pg-37)- The complete figures given in the table are incorrect. The corrections to be incorporated in the table under this Para as per the above scrutiny comment no 17(vi) for Para 4.2.2.2 and also scrutiny comment no 16. Under Grade Range- CaO & MgO percentage both to be given. Year 2021-22 to be corrected as "2021-22(Dec-21 to Mar-22).
- iii) Para 4.3.3-Dump workings-(Pg-37)- a) The corrections to be incorporated in the table under this Para also as per the above scrutiny comment no 17(vi) for Para 4.2.2.2 & scrutiny comment no 16. The Recovery factor considered for dump workings to be mentioned under the para and the supporting dump sampling & chemical analysis & Recovery report to be enclosed as annexure and reference to be given under the Para. The grade cannot be $CaO < 34\%$ as mentioned since the saleable ore is recovered and used in plant. Authentic data to be provided for the Grade of the saleable mineral after recovery and supporting sampling and chemical analysis report of dump to be enclosed as annexure.
- b) The details for disposal of the generated waste quantity after dump handling also to be given year-wise.
- iv) Para 4.3.4-Calculation Summary-(Pg-38)-a) **The total Quantity handled under Row (F) should be within the EC limits(3 million tonnes per annum).**

- b) The total ROM quantity under row "A" year-wise in this table to be arrived from "ROM Quantity" column in Para 4.2.2 (Year wise opencast development) & Para 4.3.2 (In-situ Mining).
- c) The "Saleable ore from ROM" under row B year-wise to be arrived from "Production Main" quantity of Para 4.2.2.2 (Year wise opencast development) & "ROM Quantity Saleable Mineral" for Para 4.3.2 (In-situ Mining).
- d) The "Proposed Dump Handling Quantity" under row "C" year-wise to be arrived from "Proposed Dump Quantity" for Para 4.3.3 (Dump Workings).
- e) The "Saleable ore recovered from dump workings" under row "D" year-wise to be arrived from "Proposed Recovery of Saleable mineral" quantity for Para 4.3.3 (Dump Workings).
- f) Year to be mentioned as 2021-22 (Dec-21 to Mar-22), 2022-23, 2023-24 & 2024-25.
- g) The corrections to be made in the table as mentioned above and also in all other related portion of text, annexures and plates.
19. Para 4.4-Machine Calculation (Pg-38)- i) Para 4.4.1-Machine requirement Summary (Pg-38)- The calculations to be done correctly under the table taking the maximum handling quantity per annum (ore + waste) including total handling quantity of In-situ Mining (Para 4.3.2) & Proposed dump rehandling quantity (Para 4.3.3). The Handling required per hour to be corrected as "F=E/Effective shift time".
 ii) Para 4.4.2- Shovel/Excavator Requirement (Pg-39)-The calculations have not been done correctly. The Bulk density for OB & Limestone to be considered in the "Tonnage factor". Since tonnage factor for Limestone & OB are different, the maximum handling quantity as per scrutiny comment (i) to be considered and number of shovels to be calculated separately for OB & Limestone. The bucket fill factor, swell factor, tonnage factor etc. have not been taken correctly. The TPH, yearly handling etc. to be calculated incorporating all corrections as mentioned above and no of excavators to be calculated accordingly. The Stand by excavator (L) should be calculated mentioning the availability percentage.
 iii) Para 4.4.3- Dumper Requirement (Pg-40)- The calculations have not been done correctly. The "maximum handling of material" quantity to be corrected including ore and waste as per above scrutiny comment (i). The Stand by dumper (xii) is to be calculated mentioning the availability percentage.
 iv) Para 4.4.4-Drill Machine Requirement (Pg-40)- The calculations under the table have not been done correctly. The yield per hole to be calculated correctly (Spacing*Burden*Depth of hole* Bulk density). The yield per meter is to be calculated correctly excluding the subgrade drilling meterage i.e., taking the depth of hole only. The Annual target to be assumed considering the maximum handling quantity of limestone. The rate of drilling per hours to be corrected and number of drills required to be calculated accordingly. The Stand by drill should be calculated mentioning the availability percentage.
 v) Para 4.4.5-Machine Deployment details (Pg-41)-The details of the machinery (nos. & capacity) given under Para 4.4.5.1; 4.4.5.2 & 4.4.5.3 should match with the details of machineries as reported in AR 2020-21. Under Para 4.4.5.1 the wheel loader to be also included.
20. Para 4.5-Blasting Requirement (Pg-41-42)-Para 4.5.2-(Pg-42)- Under the column "Total ROM proposed to be handled in Cum/annum" – to be considered, as same as it has been considered for drilling in previous Para 4.4.4. The other parameters like spacing, burden etc. yield/hole(cum) etc. to be calculated correctly accordingly as mentioned above and in previous paras.
21. Para 4.6- Manpower deployment (Pg-42-45): -i) After Para 4.6.5, Para 4.6.6-(Others Specify) to be added as heading. Accordingly, S.I. no of Para 4.6.6 & 4.6.7 to be corrected as 4.6.7 & 4.6.8. The excel template as published in FAQ may be referred. The "Mining Engineer" as per provision of MCDR 2017 may also be included in Para 4.6.1-Managerial. The manpower related to "Security" etc. may also be included in Para 4.6.6-Others.
 ii) The no of person engaged per day in Para 4.6.7 (Pg-44) to be recalculated incorporating all above corrections. The Material handled per shift to be checked as per previous para 4.4 (Scrutiny comment 19(i)).
 iii) Para 4.6.8-Supervision-(Pg-45)-The details have not been provided as per format. The complete manpower Requirement (Managerial/Supervisory/Skilled workers/Semi skilled workers/unskilled workers/others) to be reviewed w.r.t the in position/Existing strength as per Para 4.6.7 and shortage/Excess if any to be mentioned, and action to be taken if any shortage to be given in remarks column.
22. Para 4.7-Waste Management (Pg-45)- i) Para 4.7.1-Existing dump-(Pg-45)- Irrelevant details are provided under the table of this Para. The Year wise OB dumping details to be provided under the Para as per the format for the year 2021-22 (Dec-21 to Mar-22), 2022-23, 2023-24 & 2024-25 and same to be demarcated on the development & production plates and other related plates accordingly as per the mentioned Dump-ID. The reference of the plates to be given. **If the OB dumping is proposed on the existing OB soil dumps only, then the details is to be given under this para.**
 ii) Para 4.7.2-New Dump-(Pg-45)- If the OB dumping is proposed on the new dumps, then Year-wise details for the plan period 2021-22 (Dec-21 to Mar-22), 2022-23, 2023-24 & 2024-25 to be given under this para as per the format and same are to be demarcated as per the mentioned Dump-ID, on the development & production plates and other related plates accordingly.
- *The Year wise OB Quantity under above Para 4.7.1 & Para 4.7.2 should be, the year-wise total waste generated from In-situ Mining (Para 4.3.2) & year-wise waste generated from dump workings (Para 4.3.3)**
- *The proposed waste dump positions are not clear on the production & development plan. However, an area has been randomly demarcated between section BB' & CC' mentioning "Proposed OB Soil dump" on P&D plates. If this is the proposed position for OB Soil dumping then it is not as per the EC conditions. Specific condition (xx) of EC mentions "**

Bund formation along SW of pit in safety zone of village to a height of 10 m.”. The OB soil dumping should be specifically proposed accordingly as per the EC condition and in line with the conceptual plan.

iii) Para 4.7.3-Existing Stack (Pg-46)- Irrelevant details are provided under the table of this Para. If stacking is proposed on the existing stack itself, then Year wise Stack details to be provided under the Para as per the format for the year 2021-22(Dec-21 to Mar-22), 2022-23, 2023-24 & 2024-25 and same to be demarcated on the development & production plates and other related plates accordingly as per mentioned Stack-ID.

iv) Para 4.7.4-New Stack (Pg-46)-If stacking is proposed on the new stack, the Year wise Stack details to be provided under the Para as per the format for the year 2021-22(Dec-21 to Mar-22), 2022-23, 2023-24 & 2024-25 and same to be demarcated as per the mentioned Stack-ID, on the development & production plates and other related plates accordingly.

If there is Mineral Reject generation proposed as mentioned above in Scrutiny comment no. 17(vi)(e) for Para 4.2.2.2 then stacking details of Mineral reject are to be given year-wise as per the generated quantity Year wise, as mentioned under Para 4.2.2.2(Year-wise opencast development). The grade of the mineral reject generated to be also mentioned under the para.

CHAPTER-5-SUSTAINABLE MINING (Pg. 47-57)

23. i) Para 5.1- Sustainable Mining and SDF Implementations (Pg-47)-aIt should be specifically mentioned under this Para “ *Sustainable Mining and SDF implementations during the plan period 2021-22(Dec 21 to Mar-22) to 2024-25 will be carried out in accordance with Rule 35 of MCDR 2017*”.

b) Compliance of Vishakha Committee Guidelines- The Company guidelines for prevention of women harassment at work place to be detailed here and supporting document may be added in annexure and reference to be given under the para.

ii) Para 5.2- CSR Initiatives (Pg-47-57)- i) Para 5.2.1-(Pg-47)-a The year 2021-22 to be corrected as 2021-22(From Dec-21 to Mar-22).

b) Para 5.2.1, 5.2.2, 5.2.3-,5.2.4-(Pg-47-56)- The cumulative work done for Para 5.2.2.1,5.2.3.1,5.2.4.1, 5.2.3.12, 5.2.4.12 needs to be checked and corrected.

iii) Para 5.3- Rehabilitation & Resettlement-(Pg-56-57)- The specific year to be mentioned, 2021-22(Dec 21 to Mar-22) to 2024-25 and proposals under the para to be given accordingly.

CHAPTER-6- PROGRESSIVE MINE CLOSURE PLAN (Pg. 57-63)

24. The chapter is to be started from the new page after ending of the previous chapter, as per format.

25. i) Para 6.1-Status of Land-(Pg-57)- a)The Area under mining operation (in ha) and area under dumps (in ha) should be given as per the latest survey data as per the above scrutiny comment no 5 & 17. This may also be checked w.r.t the land use reported in AR 2020-21 and should be in line.

ii) Para 6.2.2.1-Preparations for Ground water Recharging-(Pg-58)-Specific Year to be mentioned as per the submitted document rather than mentioning Year 1,2,3,4,5.

iii) Para 6.2.2.2.1-Fencing-(Pg-58)-2021-22 to be corrected as 2021-22(From Dec-21 to Mar-22).The fencing proposal to be also reviewed for the village safety zone as per the conceptual plan & EC conditions & balance fencing to be proposed for the plan period. The proposed year wise fencing proposal to be demarcated distinctly on the development & production plates & PMCP plan. Under Co-ordinates “From ” & “To” Northing & Easting co-ordinates to be given.

iv) Para 6.2.2.2.2-(Retaining wall) & Para 6.2.2.2.3 (Garland drain)- (Pg-58-59)-All the Protective measures (Retaining wall, garland drain, check dams etc) should be reviewed w.r.t General conditions(B), (vii), (viii) & (ix) of EC and incomplete portions to be proposed in the plan period year wise. The above PMCP measures to be demarcated distinctly on the PMCP plan& also on year-wise development and production plan.Under Co-ordinates “From ” & “To” Northing & Easting co-ordinates to be given.

v) Para 6.2.3.1-Cumulative work done-(Pg-59)- The cumulative figures to be as per the figures reported in Annual PMCP report 2020-21. A copy of the report may be enclosed as Annexure and reference to be given under para.

vi) Para 6.2.3.2- Year wise proposal-(Pg-59)- The plantation has not been proposed as per the EC conditions. General Conditions(B) (x) mentions “**Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years**”. The density of trees should be proposed 2500 plants per hectare as per the EC condition. Further Specific conditions(A)(iv) of EC mentions “ **A bund of about 5 m height is to be made along the mining lease boundary on the village side with good width of green belt between village and mining area**”.The Year-wise proposal for the plan period to be given accordingly and should be clearly demarcated on the PMCP plan & also year-wise development and production plan

vii) Para 6.2.4.2, 6.2.5.3, 6.2.6.3(Pg-60-61)- Year 1,2,3,4,5 to be corrected as 2021-22(Dec-21 to Mar-22), 2022-23, 2023-24 & 2024-25 and if no proposals are there “NIL” under the respective year to be mentioned specifically.

viii) Para 6.2.7-Dump area stabilization & Development-(Pg-60)- Incomplete information have been provided under the table. Details regarding toe wall, garland drain, check dams etc. year-wise for all the dumps to be reviewed and given under this para as per above scrutiny comment no (iv),of the previous para 6.2.2.2.2. Also, the details of the OB soil dump for the plan period w.r.t the Dump id, no of terraces, average height of terraces etc. to be given as per scrutiny comment no 22 for Para 4.7(Waste Management).

ix) Para 6.2.8.2- Year wise proposal-(Pg-62)-The other form of reclamation like Catch drains, Siltation ponds etc. may be reviewed wr.t the specific and General conditions of EC and year-wise proposals may be given accordingly. The same may be demarcated on the respective development & production plate and PMCP plan.

x) Para 6.2.9-Topsoil Management-(Pg-62)- The Year wise topsoil generation for the plan period 2021-22(Dec-21 to Mar-22) to 2024-25 to be given in accordance with scrutiny comment no. 17(vi) of Para 4.2.2.2(Year-wise opencast development). The topsoil utilization details to be given under foot note of this Para. The top-soil storage area (ID & Co-ordinates) to be also mentioned under the Para and same to be also demarcated on the year-wise development and production plan, PMCP and other related plates.

xi) Para 6.2.11- (Conceptual stage)- (Pg-63)-a) The details under the table have not been given correctly. It is noted that two Conceptual land-use & Plates have been given, one for the conceptual plan for the lease period & one for the conceptual plan for the mine life which is not correct. The conceptual plan needs to be given till expiry of the Lease period only. The Mineral reserve as reported by the lessee on 1.04.2021 is 214.46 million tonnes. Taking the existing production capacity of 3 million tonnes per annum, the life of the mine comes to 71 years approx. This covers the lease expiry period till 30.07.2065. **Accordingly, the conceptual Land use only to be given till expiry of the Lease period (30.07.2065) as per format.** The details under the Para and plates to be corrected accordingly.

b) The Conceptual land use to be restricted to mining in Pit-1(238.08 ha) and Pit-2(42.10 ha) as per the EC conditions. Since exploration has not been completed to ascertain the vertical continuity of the limestone as already mentioned above in scrutiny comment no 6 and also the limestone extraction will not be completed till expiry of the lease period accordingly no backfilling to be proposed till conceptual stage for Pit-1 & 2.

c) The creation of safety bund, plantation all along safety zones (Village safety zones, Nala safety zones, Road & Railway safety zones) etc. till conceptual period are to be specifically as per the EC conditions.

d) The entire "Area under Dumps (in hect.) to be stabilized with plantation and to be mentioned accordingly under "Stabilized waste dump rehabilitated". The "area under utility services" is given as "2.09 ha" whereas "Rehabilitated area under utility services" is given as "NIL" in conceptual stage which is not correct. At conceptual stage the area under infrastructure like workshop, building, etc needs to be dismantled & Rehabilitation measures (Grassing/Plantation) on such area to be implemented, accordingly such area needs to be calculated and proposed under "Rehabilitated area under utility services". **The complete land use under the para to be corrected accordingly as per the above points.**

e) **The conceptual plan should include undertaking of re-grassing of the mining area and any other area which may have been disturbed due to mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. in accordance with the order of Hon'ble Supreme Court dated 08.01.2020.** The benches which will reach its ultimate pit limit till conceptual stage and there will be no further advancement, such workings may be identified, the dismantled/decommissioned infrastructure area, area under dumps, etc. to be reviewed and plantation & re-grassing may be proposed in such area as per above.

f) All the above corrections should be incorporated in the text and Conceptual plan & Section.

CHAPTER-7- FINANCIAL ASSURANCE/PERFORMANCE SURETY (Pg. 64-66)

26. i) Para 7.1-(Pg-64-65)-a) **It is observed that the entire items under the "Particular" column of the table have been changed which is not acceptable.** The S.I. no & items under the "Particular" column to be specifically kept as per the format and land use details to be given accordingly for each year. The excel sheet format of FAQ to be referred.

b) The Year 2021-22 to be corrected as "2021-22(Dec-21 to Mar-22). The "Area put to use at Start of the Year" under different headings as per the format should be given as per the latest survey, and as updated in the surface plan.

c) The tables in this para for each year of the plan period regarding "area put to use at start of year", "additional requirement" and "total" to be checked & recalculated after incorporating all corrections for Geology & Exploration chapter (2), Mineral processing (3), Mining operations (4), & Progressive Mine Closure Plan Chapter (6). Under the row "**Others to specify**" heading Greenbelt & Engineering measures only to be included.

d) The corrections under this Para and Financial assurance plate to be corrected accordingly as per above points.

ii) Para 7.2-Financial assurance-(Pg-66)- The "total area proposed to be put to use in hectares" as arrived at the end of the final year of plan period(2024-25) should be calculated after incorporating all above corrections and the amount of bank guarantee to be calculated in accordance with Rule 27 of **Mineral Conservation and Development (Amendment) Rules, 2021(Five lakh rupees for Category 'A' mines per hectare of the mining lease area put to use for mining and allied activities)**. The bank guarantee validity should be till the end of plan period. Copies of the bank guarantee to be enclosed as annexure and reference to be given under Para. The table under this Para to be corrected accordingly.

CHAPTER-8- REVIEW OF PREVIOUS PROPOSALS (Pg. 66-73)

27. The chapter is to be started from the new page after ending of the previous chapter, as per format.

28. The review of the proposals to be done specifically year-wise for the year 2020-21 & 2021-22(till Nov-21). For all the paras under this chapter the deviation may be calculated in percentage.

29. i) Para 8.1.1-Lease area utilization (Pg-66-67)- a) Again in the table the complete items under the column "Type of land us" has been changed which is not acceptable. The S.I. no & items to be kept specifically as per the format. The "Area at beginning of the proposal period" should be exactly similar as mentioned in "Area put on use at start of plan" of last approved document (Pg-153-154).

b) Under "Area proposed under activity" the area mentioned under "Area as at the end of plan period/Total area" as per the last approved document to be given. For e.g., in case of Mining – "40.49 ha" may be mentioned instead of 6.48ha. For OB/Waste dump-10.87 ha and so on in other headings also. The actual area is to be given as per "Area put to use at start of year" in the financial assurance chapter (7.0) for

the year 2021-22(Dec-21 to March-22) of plan period. The deviation may be calculated in percentage accordingly and reasons may be specified.

ii) Para 8.1.2-SDF and CSR Expenditures-(Pg-67-68)- Since the last approved document didn't have SDF proposals, accordingly it should be mentioned "Not applicable" under this para.

iii) Para 8.2.1-Exploration-(Pg-68)- In this table additional sub rows to be added Year-wise i.e., 2020-21 & 2021-22(till Nov-21) and under each row achievement to be reviewed w.r.t the corresponding year proposal.

iv) Para 8.2.2.1-(Pg-68)-a In this table additional sub rows to be added Year-wise i.e., 2020-21 & 2021-22(till Nov-21) and year wise achievement to be reviewed w.r.t the corresponding year proposal as per last approved document. The unit to be also mentioned (tons/cum etc). All the IBM Violation letters & compliance submitted for the period 2020-21 & 2021-22 to be enclosed as Annexure and reference to be given. The actual figures should be as reported in Annual return and Monthly Return of the corresponding year/period.

b) Under the Row "Generated waste while ROM Recovery" the mineral Reject quantity year-wise proposed from ROM, may be mentioned as per the last approved document and the actual generation of Mineral reject year-wise to be reviewed. The grade of the proposed mineral reject to be also mentioned.

c) Under the Row "Dumping Site for Surface- The area proposed for OB dump/Surface dumping for the year 2020-21 & 2021-22(till Nov-21) as per the last approved document (Pg-106-107) may be mentioned and actual area to be reviewed as per the land use reported in respective AR.

v) Para 8.2.2.2-Excavation-(Pg.-69)-The year-wise Lateral and vertical extent to be reviewed w.r.t the proposal. It was observed during last site inspection that there were deviations in the lateral extent, at the northern portion of the pit. The same may be mentioned and the measures taken to rectify the same are to be mentioned.

vi) Para 8.2.3-Dump Mining-(Pg-69)-The proposals figures have not been given correctly. The correct Handling of Material, Waste generated post recovery quantity year wise to be given for the year 2020-21 & 2021-22 as per the last approved document(Pg-71). The actual achievement to be given year-wise and deviation percentage to be calculated accordingly and reasons for deviation to be mentioned. The actual figure to be as per the respective Annual & Monthly returns. The dumping site for generated waste to be also reviewed(Dumping site ID, Co-ordinates to be given correctly for proposed & actual).

vii) Para 8.2.6-Production of Minerals-(Pg-70)- a) The proposed vs actual review to be done year-wise as mentioned above. The unit(tons) to be mentioned under each row. The details under the table have not been given correctly. All the details under the Row to be given as per Pg-71 of the last approved document.

b) Para 8.2.6.1-ROM- Under row "Opencast" the total ROM Quantity i.e., Ore + Mineral Reject as per Pg-71 of last approved document to be given year-wise. The "achievement" to be reviewed year-wise accordingly.

c) Para 8.2.6.2-Cleaned Ore- Under row "Opencast" only the "Ore" quantity as per 71 of last approved document to be given year-wise. Under row "Dump Mining" the "Recovery of mineral" quantity year-wise as per table 2.5 of last approved document (Pg-71) to be mentioned. There is no recovery proposed from "Mineral rejects" accordingly year-wise it should be mentioned "nil". The total Quantity to be arrived year-wise accordingly after incorporating above corrections.

viii) Para 8.2.7- Handling of Mineral Rejects/subgrade- (Pg-71)- Year-wise proposals to be reviewed as per the mineral Reject generation quantity proposal from ROM and dump mining, as per Pg-71 of the last approved document and the actual achievement.

ix) Para 8.2.8-Environmental Compliances-(Pg. 71-72)-The topsoil generation proposal & dumping location to be reviewed year-wise. Under the Year row, the year to be mentioned 2020-21,2021-22(till Nov-21) & the afforestation proposals & achieved figures to be given correctly as per the previous/last approved document and as reported in respective year Annual Return. Also, the proposed figures for Retaining Wall and Garland drain have not been mentioned correctly. The last approved document mentions total 345 m of embankment for the year 2020-21 & 200 m toe wall for the year 2021-22, 700 m garland drain for the year 2020-21 & 300 m garland drain for the year 2021-22(Pg-147-148). During last inspection it was observed that construction of 345 m of embankment and 700 m garland drain proposed along village safety zone for the year 2020-21 was not carried out. The deviation should be mentioned accordingly and the measures to rectify the same to be also mentioned. The actual figures in this para should be as reported in Annual PMCP report for the respective year. The latest environmental monitoring report to be enclosed in annexure and reference to be given under this Para.

x) Para 8.3-Socio Economic Review-(72)- Since there were no proposals in the last approved plan period under Socio-Economic, accordingly under para 8.3.1, 8.3.2, 8.3.3.1, 8.3.3.2, 8.3.3.3, 8.3.3.4 & 8.3.3.5 it should be mentioned "NIL".

30. **CHAPTER-9- IMPACT ASSESSMENT (Pg. 74-78)**- Since this chapter is only applicable for fresh grant., it may be mentioned "**NOT APPLICABLE**" at the starting of the chapter keeping the contents of the chapter blank.

31. **CONSENT LETTER/UNDERTAKING/CERTIFICATE FROM THE APPLICANT**

i) Consent letter /undertaking/certificate from the applicant- The Consent letter is to be enclosed with the "Text" and should be digitally signed by the Nominated Owner. The contents of the letter may be kept as per the earlier format.

ii) Certificate from QP- The Certificate from QP is also to be enclosed with the "Text" and should be digitally signed by the Qualified Person. The contents of the letter may be kept as per the earlier format.

iii) Every chapter of the text to be digitally signed by QP at starting and end of the chapter. All the soft copies of plates (dwg) & relevant annexures to be also digitally signed by QP.

32. **PART-C, PLANS & SECTIONS:**

- a) ***The Plates have not been prepared and submitted sequentially maintaining the plate number as per the format.***
- b) ***All the plans are to be prepared with boundary pillar nomenclatures and co-ordinates as per the State Govt. approved DGPS Lease sketch.***
- c) **All hard copy plan submission should be output of Auto-cad and soft copies submission should be output of KML/KMZ/SHP format. The soft copy of the auto-cad plans (dwg. file), to be also be submitted. All sections submission should be in dwg. Format (Auto-cad output). None of the KML files submitted are opening. The KML files to be also prepared correctly as per format and mine lease boundary with all pillars and 7.5 m safety zone all along the lease boundary, other safety zones (Village, Nala, Electric power line, Railways, Roads etc.) is to be specifically demarcated in all KML plans also. The individual KML to be prepared Layer wise as per the respective plan requirement and as detailed under the "List of plates" in excel format of FAQ.**
- d) It should be ensured that all attached plans & sections are prepared as per the content & scale specifications, of Rule 31 (General requirement about Plan & Sections) of MCDR 2017 & IBM Circular no. 1/2021. The Letter attached as Annexure-6A is the scale relaxation letter by the Lessee and not the permission granted by the Competent authority. **The Scale relaxation letter from the competent authority should be attached as per the provision of the Rule 31(d) of MCDR 2017.**
- e) All plans and sections should be signed with date by certified surveyor, Qualified Person, Geologist, Mining Engineer as per provisions of MCDR 2017. The submitted soft copies of the plates (dwg files) are to be digitally signed. **The plate number has not been maintained as per format. The same has to be maintained as per the format.**
- f) Lease Cadastral Plan (Scanned image)- The scanned copy of the original lease map (Plate no-1) issued by State Govt along with other details to be enclosed as per the format.
- g) Surface Plan (Plate No-2a,b,c): The surface plan to be corrected and updated specifically as per above scrutiny comment no 5 and as mentioned above in points (a), (b), (c), (d) & (e), and also all related scrutiny comments of different chapters. The KML/SHP file of surface plan to be also prepared accordingly after incorporating all corrections. The colour codes for different features to be followed as per the format.
- h) Geological Plan (Plate no.-3 a, b, c):
 - 1) The plates should be checked and all corrections to be specifically incorporated as per the aforementioned scrutiny comments of Geology and Exploration chapter (2) & as mentioned above in points (a), (b), (c), (d), & (e). There is no Lithological index on the Geological plan. The plate should incorporate all lithological units in the area, already drilled boreholes, proposed boreholes for the plan period, the area covered under different explorations limits G1, G2, G3 to be clearly demarcated and area to be mentioned in plate. The Plan should be submitted showing different colour codes for i) Lithological/Geological occurrence ii) Area under G1, G2, G3 and other features as per format. All the features to be also replicated as per the corrected/updated surface plan. The KML/SHP files of Geological plan to be also corrected accordingly.
 - 2) Geological Section (Plate No.3 d & e)-The plate should be checked and all corrections to be specifically incorporated as per the aforementioned scrutiny comments of Geology and Exploration chapter (2) and as mentioned above in points (a), (b), (c), (d) & (e). The existing pit profile should be in line with the surface plan and also indexed. The section should be submitted with different colour code depicting all the features as shown in surface geological plan.
- i) Production & Development Plan (Plate No.4a, c, e & g & 5a): These plates should be corrected as per the aforementioned scrutiny comments for Geology & Exploration (2), Mining operations (4), Progressive Mine Closure plan (6) & Financial Assurance/Performance security (7) chapters. The Year-wise production and development plan should be as per the Year-wise development and production sheet as mentioned above in scrutiny comment no 17(vi). The existing pit profile, safety zones etc. should be replicated as per the corrected/updated surface plan and also to be mentioned in index
 - ii) **The lithology as given in the geological plan should also be depicted in all the production & Development plans with index.**
 - iii) **The proposal of bench development systematically mRL wise & connecting with the old benches as per bench mRL may be worked out. Also, the ramps/haul road for access to the mine pit and waste dump have to be demarcated on each year production & development plan.**
 - iv) The environmental protective work proposed year wise should also be demarcated year-wise along with index as per the PMCP chapter (6).
 - v) The KML/SHP files of each year production and development plan to be also corrected accordingly. The colour codes for different features to be followed as per the format.
- j) Production & Development section (Plate No 4b, d, f & h & 5b)- Individual year wise section as per the respective production & development plan have to be prepared correctly depicting the year-wise proposed excavation and dumping proposals. The corrections should be incorporated in the individual year section as per the respective production & development plan as mentioned above in scrutiny comment no (i). The demarcated existing pit profile, safety zones etc. should be in line with the surface plan and also to be mentioned in index. **The year-wise excavation and dumping proposals with different colour depicting all the features as shown in respective P&D plan to be demarcated as per format.**

- k) Progressive mine closure plan (Plate no 6): All corrections to be incorporated as per the PMCP Chapter (6.0) and related scrutiny comments of other chapters and above. Also, all the features such as existing pit, safety zones etc., to be replicated as per the updated/corrected surface plan. The year-wise proposed PMCP measures for the plan period should be demarcated with different color code as per the format. The KML/SHP files of PMCP plan to be also corrected accordingly.
- l) Progressive mine Closure sections -The PMCP section (Plate no-7) has not been prepared. The same should be prepared as per the format after incorporating all corrections in Progressive mine closure plan.
- m) Conceptual Plan (Plate No 7a,b & c)-i) All the corrections to be incorporated as per the above scrutiny comment no 25(xi) for Para 6.2.11. The benches developments as proposed in the individual year-wise production and development plan should be in line with the benches development proposed till conceptual stage in the conceptual plan. The KML/SHP files of conceptual plan to be also corrected accordingly. The status of land use shall be depicted by different colour code as per the format.
ii) **The conceptual section should depict sections along Pit-1, Pit-2, Waste dumps etc. at conceptual stage as per the conceptual plan. The sections to be prepared accordingly and furnished separately.**
- n) Geo Referenced Cadastral Plan (Plate no 10)- The Geo referenced cadastral plan (DGPS lease Sketch) duly certified by the State Govt. to be enclosed as per format.
- o) Environment Plan (Plate No 8): -The corrections to be incorporated as mentioned above and as mentioned in scrutiny comments of different chapters. The KML/SHP file of Environment plan to be also corrected accordingly.
- p) Financial Area Assurance Plan: The plates should be corrected incorporating comments for Financial Assurance/Performance Surety Chapter (7) (Scrutiny comment no 26). The Financial assurance table may also be given in plate accordingly and all the area shown in the table should be distinctly demarcated on plate and indexed.
- q) **All the Plans & Sections should be placed serially in a proper bound folder with heading "Part-C" as per the format. The list of plates should be mentioned accordingly in the text and the cover page of the folder maintaining the numbering & sequence specifically as per format. The excel template as published in FAQ may be referred**
33. **PART- B, ANNEXURE:**
- a) **The annexure number and headings have not been maintained as per the format and are enclosed in random. The annexure number and headings to be specifically maintained as per the format. The excel template as published in FAQ may be referred**
- b) All the annexures as mentioned in above scrutiny comments of different chapters to be enclosed. Also, corrections in the annexures, as mentioned above in scrutiny comments of different chapters to be incorporated.
- c) Annexure-7- The copy of valid consent to operate as per above scrutiny comment no 3(ix) to be enclosed.
- d) Annexure-10-The latest copy of the resolution of Board of Directors nominating the owner should be enclosed as per above scrutiny comment no 3(xiii).
- e) Annexure-14- The Consent letter should be digitally signed by the Nominated Owner. Also, the Certificate from Qualified person to be digitally signed by the QP.
- f) Annexure-14-The Qualification certificate of QP "Shri Vijay Kumar" in accordance with Rule 15 of M(OAHCEM) concession Rule 2016 should be enclosed.
- g) Annexure-8 & 20-Study Reports- The corrections/additions to be incorporated as mentioned above in scrutiny comment no 18(i) for Para 4.3.1.
- h) Annexure-25-Feasibility Report- The corrections to be incorporated as mentioned above in scrutiny comment no. 12(iii),12(iv), 12(v)&12(vi).
- i) Annexure-17,18,20-Exploration details- The corrections & additions to be incorporated as per above scrutiny comments of Geology & Exploration chapter (2)
- j) Annexure-19-Chemical & Mineralogical Analysis report-The corrections/additions to be incorporated as per above scrutiny comments of Geology & Exploration chapter (2).
- k) Annexure-22-The Reserve. Resource calculation is to be done in Para 2.2.4.2, 2.2.4.11,2.2.4.12 of the text as mentioned above in Geology & Exploration chapter(2) and not in annexure. The same is to be removed.
- l) Annexure-24- Mineral Processing flow sheet- The corrections to be incorporated as per above scrutiny comments of Mineral Beneficiation/Processing chapter (3).
- m) Annexure-6A-The copy of scale relaxation permission granted by the Competent authority to be enclosed.
- n) The copies of Bank Guarantee to be submitted as per above scrutiny comment no 26(ii).
- o) Annexure-23-Development & Production Sheet- The corrections to be incorporated in this annexure as per above scrutiny comment of Geology & Exploration (2) & Mining Operations (4.0) chapters
- p) **All the annexure to be properly numbered/paged and relevant annexure to be signed by QP. The Page no range should be accordingly given in Part-B Annexures in text. All the annexures should be legible.**
