

Scrutiny comments in respect of Cazchem ran mining lease, (Onda Mine) T.C. No.98/52, over an area of 74.1883Ha non-forest land, A-category fully mechanized mine, situated in Onda & Cudnem -villages, Sattari & Bicholim-Taluka, North Goa-District of Goa-State for approval in Modification in Mining Plan under rule 17(3) of MCR, 2016 for block period 2013-14 to 2017-18 & approval period of 2016-17(Feb.,17 to March,17) to 2017-18 of M/s Chowgule and company private limited.

Details of approved MP/SOM- (i) The review chapter should be discussed in brief up to Jan., 17. (ii) The ROM production & development quantity, sub-grade/mineral rejects & dumps recovery if any achieved up to Jan.17 in financial year 2016-17 should be given based upon monthly return submitted to IBM only. (iii) it should also be discussed in brief regarding ROM production achieved till Jan.,2017 & remaining cap quantity to be achieved from Feb.2017 to March, 2017 in the financial year 2016-17.

The present mine workings/excavation of ROM had been carried out in pit no.2 & continue. The location of proposed ROM production & development quantity should be in G1/G2 level of exploration as per provision of MEMC Rules 2015. The present existing borehole logs/sections in pit no.2. the geological axis is G3 level & may not be put for production & development proposal. Extrapolation & influence of exploratory borehole should be considered in G3 level only.

The present production & development sections of pit no.2 & latest approved plan section is mismatching and clay/waste rock, shown fines/powdery ore. Which needs clarification? Reconcile with original borehole logs & re-submitted the actual modified production quantity.

It was observed during inspection that presently stacking of ROM mineral stocks lying partly outside the lease area in between section W140 to W245, which should be with in lease area as proposed. It needs clarification.

The copy of latest violation pointed out & their compliance report should be discussed for the change of place of working, exploration etc. Appointment of mining engineer & geologist should be discussed under provision of MCDR, 1988.

The status of quality & quantity of lifting of excavated ore by way of auctioning by state Govt. should be discussed in brief with supporting document.

Geology-

- 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.

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:						

- Page-31:- Ore body is opened upto 58m RL, whereas in Plan & Section the lowest RL is only 77m same for UPL also, in section UPL is proposed upto 52m, but in text it is only 58m.
- 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. 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.
- Detailed estimation table for reserves & resources as per UNFC has to be given in text. Minerals (Evidence of Mineral Contents) Rules 2015 has to be followed for exploration grid interval for UNFC reserves & resources estimation. Beyond & below the depth of boreholes, it should be considered as resources as per above said rule.
- 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 01.04.2016, it should be shown as 01.01.2017.
- Cross Sections No shown in reserves table & in section are not matching with each other, i.e, in Section W-370 is shown but in table W-350 & 380 is present.
- Using single Boreholes or without boreholes, section has drawn and ore is considered as G-1, as per Minerals (Evidence of Mineral Contents) Rules 2015, it has to considered as resources only.
- There is no availability of Friable & Powdery ore in section from W-490, but in reserves table it has shown.
- In review chapter, there is no discussion for the year 2015-2016 regarding production & development. Proposed area with Co-ordinates and achieved area with Co-ordinates also to be discussed.
- Reserves table is not updated because the reserves quantity is from 01.04.2015. Production after 1.04.2015 has to be deducted from the reserves.

Mining- As discussed during inspection- (i) The targeted quantity of production for the year 2016-17 & remaining quantity to be achieved with in short span of time i.e. Feb.,17 to March,17 & accordingly optimization of man & machinery & proposed no of working faces ,shifts, advancement of faces & effective working hours/shift etc. should be discussed.

The proposed mine workings/ dumping/stacking should be 100m away from existing pit edge as per DGMS guideline. The UPL should be modified by leaving statutory barrier of nallah, road, HT power line etc.

All relevant table & text should be discussed & modified as above scrutiny & also discussed during inspection. The remaining proposal will be same as earlier approved modification in mining plan approved by this office recently.

Plates:

- List of plate nos mentioned is mismatching with plan & section
- Date of Survey has to be updated and plan is not updated from previous approved plan.
- Yearwise production profile is not needed to show in Geological Cross sections. Proposed Boreholes to be include in Geological Cross Sections.
- All the drilled boreholes have to be shown in section, i.e, BH-CG/8.5/D not in sections, but in plan & longitudinal section it's present. Geological Cross Section & Longitudinal section are mismatching i.e, in BH-CG/2.0/D has closed at Limonitic ore in Geological section & Mn Clay in longitudinal sections.
- When compare to previous approved Geological Plan, this year has slight different and laterite has been, marked as low grade ore in this plan.
- Section also mismatching more when compare to approved plan, certain section has new boreholes in W-560, last year entire section was shown overlying formation whereas this year same section has enormous powdery ore in W-595. Hence Plan & sections has to be drawn based on original filed data and borehole logs for all sections.

Plan & sections: *All relevant plan & sections, Surface plan, Production& development plan, Conceptual plan should be updated & modified. The relevant table & text should be updated & modified based upon the modified/enhancement of production & development proposals.*
