

Scrutiny comments on examination of Modified Mining Plan in respect of Girija Manganese mine of Smt. Y.Suvarchala Legal heir of Late Y.P.Rama Rao over an extent of 29.48 Ha. situated in Poram Reserve Forest, Block no.II of Chintalavalasa Village, Ramabhadrapuram Mandal, Vizianagaram Dist. of Andhra Pradesh State submitted under Rule 17(3) of MCR, 2016.

Date of Inspection: 16.10.2017

Inspecting officer: M.Pratap Reddy, AMG.

Accompanying official: Shri G. Satya Rao Geologist, Lessee's representative and Shri G.Naresh Kumar, Qualified person

General:

1. The cover page should be displayed with total lease area details, land type, Rule under which the document has been submitted, Plan period, complete address of the lessee and Qualified person. The date of expiry of the lease period should be given as per the State Government order/Proceedings.
2. The document may be prepared as per the universal format and guide lines displayed in the website (2014).
3. The signature of the Qualified person in Text differs with the signature in the Plans and sections.
4. The copy of legal heir Certificate of Late Y.P.Rama Rao also be appended.
5. The qualification and experience certificate of QP as under Rule 15 of MCR 2016 have not been enclosed.
6. The copy of Forest Clearance enclosed vide Annexure is illegible and nothing could be read out of it. The validity of the same be spelled out in text with the supporting documents.
7. Production capacity granted by the competent authority is 26,967 TPA for the estimated life of the mine of the 6 Years but the production envisaged in the document is 70,440 TPA. Pl clarify
8. The lease period has been lapsed on 27.8.2017. No extension till date is granted by the competent authority under Section 8A(5) of MMDR Amendment Act. Further processing of the document is subject to obtaining/grant of extension of the lease period by the State Government and if any, the same need to be appended with document..
9. All the annexures mentioned/referred in the document be properly addressed in the text with the Annexure nos.
10. The Plans and sections be prepared on 1:1000 scale and the contour interval be maintained at 5m interval for a better clarity.
11. Para 2.0 a) (Lease details): The correct Email id of the lessee be furnished.
12. Para 2.0 c) (details of lease area/ Lease area with location Map): The Ownership occupancy be properly referred (either Govt waste land or Private land or reserve forest etc)The approach to the ML area from NH to the ML area be discussed. This para no. should have been 2 b)
13. Para 3.1(Date and reference earlier approved MP/SOM)details of approved MP/SOM): The details of approvals MP/SOM since inception with the validity period be furnished in a tabular form.
14. Para 3.3(Review of earlier approved proposals-----): All the approved proposals against the actual be furnished in tabular form with a remark column justifying the deviation if any.
15. Para 3.4(Status of compliance of the Violations-----): The violations and compliance thereof during the review period be furnished in Tabular form. The copies of relevant violations and replies and mode of compliance thereof be furnished. The Violations and rep[lies be furnished in the form of Annexures.

PART-A

16. Para 1.0 a (Briefly describe the topography-----): The block wise relief of the area has not been mentioned.
17. Para 1.0 b (Regional Geology-----): The formations occurring in the area has not been properly equated with the Regional Geological setup.
18. Para 1.0 c (Detailed description of Geology of the lease area -----): True thickness of Manganese ore be mentioned. The apparent thickness has been mentioned.
19. Para 1.0 d Name of prospecting/exploration agency: The Technical person name under whom, the exploration has been carried out be given.
20. Para 1.0 d)(No. pits and Trenches-----) The Quarry nos. mentioned in the Text does not confirm to quarry nos. given in the Surface Plans and other Plans.

Contd on page-2

In table no 6A, the term spacing is wrongly mentioned. It should have been the Coordinates of the Boreholes.

The Block wise boreholes be furnished. In case of inclined boreholes azimuth be given indicating the direction of inclination of Borehole.

21. The details DTH holes drilled in Quarry-1 has not been mentioned. Para no e) is missing.
As per the index in the Geological Plan, exploration has been carried out in three spells but in Text only two spells have been given. Different colour index for different spells of Boreholes be given for clarity sake.
22. Para 1 d) iii) (Details of sample analysis-----): The surface sample locations have not been marked in Geological Plan. The no. of Core samples have not been indicated.
23. Para 1 f, g & h) (The Surface Plan-----, Geological Plan -----, Geological Sections-----): The scale of Plans and Sections is said to be 1:1000 but whereas the Plan and Sections are on 1:2000 scale.
24. Para 1 I) (Broadly indicate the future programme of exploration---): As per the ministries guide lines and under Rule 12(4) of MCDR, 2017, in case of existing mining leases, detailed exploration (G1 level) over the entire potentially mineralised area under the mining lease shall be carried out within a period of five years from the date of commencement of these rules. Accordingly, a purpose oriented/need based exploration be proposed in the mineral bearing area. In case of inclined boreholes, the direction of inclination (Azimuth) be indicated. The coordinates of some of the proposed DTH holes have not been furnished.
25. Para 1.0 J) (Reserves and Resources-----):
 - 1) The no.of Cross sections drawn in Block-F is mentioned to be 'three' but where as there are six sections.
 - 2) At the first instance, the scale of the exploration be marked on the Geological Plan based on the density of Boreholes and the same be also marked in the respective Geological Sections..
 - 3) The depth of the mineralistaion is said to be upto 316.52m RL, but this varies from Borehole to borehole. Therefore a range of depth (min & max) with reference to the Borehole be indicated. Depth be restricted upto bottom intersection of ore body of the respective borehole
 - 4) A detailed report with the quantities of the excavated material during the field test for arriving recovery factor and bulk density has not been furnished. Locales of such pits dug for field tests be shown in the Geological Plan. While calculating the reserve/resources these factors (Bulk density and Recovery %) have not been taken into account. The estimation of reserve/resources should be based on these field tests.
 - 5) The core drilling and borehole density etc should be dealt under 'Technological' sub head of Geological axis.
 - 6) The various figures given under operating cost/T in Feasibility axis be checked for its correctness.
26. Para 1.0 k)(Furnish detailed calculation of reserve -----): All Reserve/Resource need to be reassessed as per the comment vide para 1.0 J) taking into account of Recovery factor and Bulk density arrived during the field tests carried out by the Department of Geology of Andhra University. The basis of grade wise recovery and sub grade estimation has not been spelled out.
27. Para 2 a) (Briefly describe the existing as well as proposed method-----): Present status of working should be submitted incorporating, dimension of quarry, top RL, bottom RL, No. of benches in ore & waste, bench height & width etc. Block wise quarries and dumps be given The approved quantity of ROM by the EC be mentioned and copy of the same be appended. The deployment of wagon drill with regards to drilling and blasting be reviewed depending the bench parameters proposed. The production schedule be reviewed asper the comment vide para 1.0 J.
The term crude Manganese as mentioned in Table no. 18 is not quite understood. The basis in arriving sub grade mineral is not clear.

28. Para 2 b (Insitu tentative excavation----): The area demarcated for the year wise tentative excavation be proposed as per the G2 scale of exploration as demarcated vide para 1.0 J. with well defined grids.
29. Para 2 c (Individual Year wise ----): The year wise layout of mine working should be discussed in the text part supported by bench wise calculations of proposed excavation of Ore and OB with the aid of Plans and sections..
30. Para 2 d) (Describe briefly giving salient features---): The proposed bench height and width be checked once. The width of the bench should be more than the height of bench.
31. Para 2f(Conceptual Plan----): This para be reviewed as per the outcome of the para 1.0 k)
32. Para 3 d (Mine Drainage – Describe regional and local drainage-----): It is said that the area is plain land which is not so. The depth of minimum and maximum depth of workings be checked once with working sections.
33. Para 4.0 Stacking of Mineral reject/subgrade mineral-----: This para be reviewed as per the comment vide para 2 b.
34. Para 6.0 b (Processing o ROM--- Material balance chart-----): The location of the Jig and Sinter Plant be spelled out. The cost involved in Conservation of Mn ore in the process of value addition of the Mn ore be clearly spelled out.
35. Para 8.3.1 Mined out land: The mineral is yet to exhaust at depth and thus there is no mined out land and there is only degraded land.
36. Para 8.4 (Disaster management and Risk-----): The two names of contact persons have been mentioned under disaster management in which one does not pertain to Mine Management and the other person has expired.
37. Para 8.6(Financial Assurance): In view of the above comments, the F.A. should be re-assessed and submitted as per Rule 27 of MCDR,2017 along with final copies.

Annexures:

Annexures which have not been referred in the Text be omitted.

Annexure X is illegible

Annexure XII: Form-K with regards to BH 55, 56, 61, 22PA, 41 P(a), 60, 19p is incomplete. Form-K of all the Boreholes be orderly furnished. All the Form-K be duly signed by Geologist. The DTH holes details have not been furnished.

Annexure XIII: The NABL accreditation is valid upto 4/8/2016 but the chemical analysis have been carried out at later date.

Annexure XV: Feasibility study Report: Feasibility study report be reviewed as per the comment vide para 1.0 J)

PLATES

1. Plate-I Key plan: The ML area be distinctly marked. The Plan should be as per the provision of rule 28 of MCDR,2017, the area of 5 KMs around the lease area should be considered and all the details within this area as per statute should be incorporate. The existing mines within 5km radius be shown. The extremities of the coordinates have not been drawn.
2. Surface Plan, Geological Plan, Sections, Production and development and sections there of other Plans be prepared on 1:1000 scale for the better clarity with 5m contour interval.
3. Plate-III (Surface Plan): The date of survey has not been mentioned. The Plan has not been signed and authenticated by the qualified surveyor. The quarries and Dumps have not been properly shown and numbered.
4. Plate-IV Geological plan: The Boreholes have not been properly indexed. The scale of exploration and strike and dip have not been marked. The Plan be updated as per the comment vide para 1.0 J. The UPL be redrawn.
5. Plate-IV A Geological Sections: The Sections be redrawn as per the Geological Plan and comment vide para 1.0 J. The sections be uniformly in a sequential order be numbered. The scale of the exploration be marked as per the Minerals (Evidence of Mineral Contents) Rules, 2015. The sections E1-E1' be deleted. All the sections be checked once for the correctness plotting of the Geological contacts and ore body intercepts in the Boreholes. The intercepts of dumps, roads and nallas have not been shown along the profiles wherever they intercepted. The UPLs have also not been properly drawn (Section 6A-6A', 7A-7A' 7B-7B', 7C-7C' etc). In index a symbol for vein is given. Which vein it designates.

6. Plate-V A to V E: Year wise development plans and sections, Plate VIII: Reclamation and Rehabilitation Plan, Plate-IX: Progressive Mine Closure Plan and Plate-X & X A : Conceptual Plan and Section : These Plates be modified as per the comment vide para 1.0 J. In the yearwise development sections, the formation of benches have not been shown (Plate VIA to VIE)
7. Plate-VII Environment Plan: Prominent wind direction has not been shown. Contours have not been extended up to 60m buffer zone. Land use pattern in the buffer zone has not been properly shown and indexed.
