

**INSPECTION REPORT CUM SCRUTINY COMMENTS ON REVIEW OF MINING PLAN OF PALKURU LIMESTONE MINE OF SHRI B.RAJENDRANATH SPEARD OVER AN AREA OF 2.255 HA IN SURVEY NO-29(P) & 30/1 OF PALKURU VILLAGE, BANGANAPALLI MANADAL, KURNOOL DISTRICT OF ANDHRA PRADESH, DATE OF FIELD INSPECTION-31.05.2017**

**1.General**

- a) Mention date of grant and enclose grant order no-GO MS No-219 dated 13.08.2007.
- b) Environmental clearance no as mentioned in text and as enclosed is not matching.
- c) Enclose state Govt. extension letter for grant of Mining lease for a period of 50 years if obtained.

**2. Review**

- a) The achieved production in 2016-17 is 8620 tonnes but in the review it is mentioned as 910 tonnes. The waste generation during 2012-13 , 2013-14,2015-16 is 5500 tonnes, 3500 tonnes, Nil where as in the review the figures are 4500 tonnes, 2500 tonnes and 550 tonnes respectively. It should be corrected.
- b) 2 BH drilled but records of BHs in form-J were not maintained. The BH sample analysis shows presence of limestone upto 10m drill hole depth. Annexure-IX and Met-chem analysis reports's depth not matching with each other.
- c) The reclaimed area is not matching with that of the last plan period proposal (2012-13 to 2016-17) and 0.30 ha area has been backfilled without proving the complete exhaustion of ore and in area which was not proposed for back filling. Clarify and submit the details of backfilling i.e, quantity of backfilled material etc.
- d) Top soil handled is only 500 tonnes against 4989 tonnes during the last plan period, give justification.
- e) Work has been found extending within 50 m of canal, which is not permitted. Clarify.

**Part-A**

**3. Geology & Exploration-**

- a) The thickness of Limestone as mentioned needs to be modified based on BH records.
- b) All the earlier exploratory trenches are not shown and litho logs of all the trenches and pits are not given.
- c) The depth mentioned in litho logs of 2 nos DTH BHs and that of chemical analysis reports are not matching with grade.
- d) Give co-ordinates of all the exploratory drill holes, trenching (2 nos), pits (7nos) etc with depth, length, width, height as required enclose records of earlier exploratory work.
- e) **Reserve / Resource**
  - i. In the justification of Geological Axis (G1) 2nos exploratory trenches and additional 3 nos exploratory pits done has not been considered and bulk density study has not been mentioned. Bulk density be established as per field data and submitted.

- ii. In the justification for economic axis (E1) the status of detailed exploration should be changed accordingly.
- iii. As no mining operations is allowed within that part of the ML area which is falling within the 50 m from the bank of canal as per the lease deed condition, the Reserve / resource categorization as per MEMC Rule-2015 should be modified accordingly.

**f) Future programme of exploration-**

Incongruity has been observed regarding depth of mineralization submitted in text and lithologs of DTH borehole data which shows good quality mineralization upto a depth of 10m. Thus further exploration is required.

- g) The reserves & resources of Limestone should be estimated with CaO%  $\geq 35\%$  and as the cut off value is CaO%  $\geq 38\%$ , Mineable reserves should be estimated on CaO%  $\geq 38\%$ .

**4. Mining**

- a) Give year wise, section wise excavation quantities.
- b) Bench height should not be more than 1.5m and width not less than 3m and accordingly correct in the layout of mine working in all the production and Development plan drawings (plate no-6A to 6E and 7).
- c) Only one stage drilling having depth of hole 1.50m should be carried out and accordingly necessary correction should be made.
- d) Supply of explosives should be detailed.
- e) In the formation of Bund during plan period give height, width and boundary pillar nos along which bund will be formed.
- f) Mention the quantity of sub grade mineral and mineral rejects available with grade and its disposal.
- g) Give justification for rehandling of 39375 tonnes of mineral rejects from 2022-23 to 2026-27.
- h) In reclamation and rehabilitation show the restricted area for mining operation in land use.

**5. Stacking of mineral rejects/SG and Disposal of waste**

- a) In the formation of bund using top soil & waste during plan period give height, width and boundary pillar nos along which bund will be formed.
- b) Justify rehandling of 39375 tonnes of mineral rejects from 2022-23 to 2026-27.
- c) Propose temporary dump for Sub Grade, Mineral rejects and Mineral.
- d) Justify the dump above the backfilled area falling in the restricted area for mining operation.
- e) Propose stabilization the dump over the backfilled area which is falling within the 50 m from the bank of the canal.

**6. Use of mineral and mineral rejects**

- a) Add tooth paste making industry and give detail chemical and physical specification.
- b) Mention the use of mineral rejects.

**7. Processing of ROM & Mineral Rejects**

As the proposed depth of mining consists limestone of soft nature, the material flow sheet for sizing and sorting needs to be modified accordingly.

#### **8. Progressive Mine Closure Plan**

- a) Propose stabilization the dump over the backfilled area which is falling within the 50 m from the bank of the canal.

#### **9. Plates**

- a) As per lease deed condition no mining operations are allowed within that part of the Mining Lease, which is falling within the 50 m of the bank of canal. The restricted area should be clearly marked on every plan and sections.
- b) Plate-1(key Plan)-Give graphical scale of at least 25 cm length.
- c) Plate-2(Lease Sketch) Also enclose the copy of original sketch as per lease deed & the modified sketch.
- d) Plate-3(Surface Plan)- Give graphical scale of at least 25 cm length in the plan. Show all the exploratory pits and trenches. Mark the mining operations restricted area.
- e) Plate-4(Geological Plan)-Show all the exploratory pits and trenches.
- f) Plate-5(Geological Cross Section)- Give graphical scale of at least 25 cm length in the plan. The locations of existing exploratory pits & BH are not shown and projected in the section. Clearly mark the mining operation restricted area and accordingly modify the category of reserves/resources.
- g) Plates-6A to 6E (Production and Development sections) Give graphical scale of at least 25 cm length in all the plans. Mark the restated mining operation area.
- h) Plate-7(Sections showing yearly workings) Give graphical scale of at least 25 cm length in the plan. The locations of existing exploratory pits & BH are not shown and projected in the section. Clearly mark the mining operation restricted area and accordingly categories the reserves/resources.
- i) Plate-8(Environmental Plan)- Give graphical scale of at least 25 cm length. Dump has been found extended outside lease, which has not been marked/shown.
- j) Plate-9(Conceptual plan & Sections) Mining operation restricted area should be marked clear on plan and sections.
- k) Plate-10(Financial Assurance Plan)- Mining operation restricted area should be marked clear on plan and sections.
- l) Plate-11(Reclamation Plan)- Mining operation restricted area should be marked clear on plan and necessary correction should be done.

#### **10. Certificates**

The certificate should be in Mining Lessee's Letter head.

