SCRUTINY COMMENTS ON DRAFT FINAL MINE CLOSURE PLAN IN RESPECT OF GHAGRA LIMESTONE MINE (675.46HA) IN VILLAGE GHAGRA, DISTRICT GARHWA, STATE JHARKHAND OF M/S STEEL AUTHORITY OF INDIA LTD. SUBMITTED UNDER RULE 24 OF MCDR, 2017.

#### **TEXT**

- (1) The FMCP submitted under rule 24 of MCDR, 2017 may be corrected as rule 24(1) of MCDR, 2017.
- (2) In the cover page, out of total lease area 675.46 ha, area under forest shown as 158.99 ha and nonforest area shown as 516.47 ha whereas as per the land schedule enclosed as annexure 2, and in the details of lease area furnished under item 3.7, the forest area mentioned as 1275.69 Acres (516.47 ha). Same may be corrected.

### (3) Page no. 6: Balance estimated mineral reserve / resources:

Out of 675.46 ha lease area, 516.47 ha area falls under forest. The balance estimated mineral reserve / resources for forest and non-forest areas should be calculated separately.

## (4) Page no. 6: Balance estimated mineral reserve / resources:

Total reserve and resources furnished under category 111 & 121 as 30.744 tons. Same may be corrected.

(5) Date has not given in the consent letter / undertaking /certificate from the applicant.

## (6) Page no. 11:Latitude & longitude of all corner boundary point / pillar:

- (i) It is mentioned that the DGPS survey of the lease boundary has been completed but the DGPS survey report has not been enclosed along with the document.
- (ii) The three leases of the company namely Gorgaon, Ghagra and Saraiya are contiguous and having common boundary. Only few boundary pillars were observed during the inspection. The boundary pillars with their co-ordinates as per the specification should be maintained and some colour photographs of the boundary pillars with correct co-ordinates as per DGPS survey should be enclosed in the document.
- (iii) The co-ordinates of the boundary pillar no. 12 & 13 shown during the inspection are not matching with the DGPS co-ordinates.

### (7) Page no. 17: Status of compliance of violations:

The violation cum show cause notice issued vide letter no. JHK/GAR/LST/359/RRO dated 24/03/2014 has not been mentioned in the table.

# (8) Item 6.5.5: Total lease area explored under various categories:

It is mentioned that an area of 154.0173 ha has been explored under G1 category. The total area explored in under various categories should be estimated separately for forest and non-forest area as per the table given in the manual for appraisal of FMCP.

- (9) Item no. 6.6.2: The mineral resource estimation given in annexure 20 and the estimated mineral reserve / resources and the balance estimated mineral reserve / resource furnished under item 6.7 & 6.8 may be verified.
- (10) Item no. 6.7 & 6.8: The estimated mineral reserve / resources and the balance estimated mineral reserve / resources should be calculated separately for forest and non-forest area. Also the year of calculation of reserve / resource should be mentioned as per the guideline.

#### (11) Page 32: Item no. 7.0: Mining:

- (a) Under the chapter mining, nothing has been discussed about the existing quarries in the lease area, their dimensions, plantation etc. Same should be furnished giving details of the quarries / mined out areas etc.
- (b) Unit of yield per hole and calculation for arriving the quantity should be given.
- (c)Presently the mining operation in the mines is discontinued since 2013 and there is no proposal for development and production during the year 2018-19 & 2019-20. Hence the actual mining practices adopted before the discontinuance of mining operation should be discussed.

- (d) Under the sequence of operation, thickness of manganese ore has been mentioned. May be corrected.
- (e) Item no. 7.4: There is no proposal for development and production during the year 2018-19 & 2019-
- 20. But mining operation to be practiced has been discussed under the proposed method of working. Same may be clarified.

## (12) Item no. 11.1 (a): Existing land use pattern:

- (i) The existing land use pattern of the lease area furnished as 66.58 ha for mine workings, waste dump, old sub-grade dump, rail, infrastructure etc. As the mining activities were carried out both in forest and non-forest area, the existing land use pattern of the lease area should be furnished separately for forest and non-forest area.
- (ii) The area degraded / broken due to mining activities furnished under item 11.1. (a)should be reconciled with DGPS surveyed map (Drg. No. MEC/11/16/G252/GGR/08).
- (13) Item no. 11.1 (d): The Shiva hill lying in the north-west part of the Gorgaon lease area having common boundary with Ghagra lease. A place of historical / religious worship (Lord Shiva) is located under the Shiva hill. Details should be discussed under this item.

## (14) Item no.11.2.2: Safety and Security:

- i) Details of existing and specific quarries in the lease area proposed for fencing, their dimensions etc. should be discussed under this para.
- ii) Proposed fencing around Haldi pit and Khswani old quarry are not shown in the reclamation plan. May be explained. These specific works be mentioned clearly in the text and in plan in a clear manner.

### (15) Item no.11.2.3: Afforestation:

Proposal for year wise afforestation giving details such as area to be covered, no. of saplings to be planted and species etc. should be furnished.

### (16) Item no. 11.4: Financial Assurance:

- i) The financial assurance shall be furnished as per rule 27 of MCDR, 2017. The amount of financial assurance to be submitted in the form of bank guarantee has not been given. Financial assurance amount should be calculated as per the provisions of MCDR, 2017 and be shown accordingly.
- ii) Area considered for calculation of financial assurance under item 'Others' has not been specified.
- iii) The validity of the financial assurance submitted earlier has been expired. The amount of financial assurance submitted earlier has not been mentioned.
- (17) An undertaking that in case there is any change in the address/name of the ownership it will be promptly intimated has not been given.

#### **PLATES**

(1) The lease area plan of Ghagra lease has not been submitted along with the document. The lease area map authenticated by the competent authority of State DMG should be submitted.

#### (2) Surface Plan:

- i) There is no date of survey in the plan, which should be mentioned. The Surface plan is also not signed by the surveyor.
- ii) There is forest area within the lease hold but the forest area has not been shown / marked with proper colour code in the surface plan. Forest area should be shown properly in all the plans.
- iii) At least three ground control points situated outside the lease area should be selected and latitude & longitude of these ground control points should be furnished. These ground control stations should be linked with the boundary pillars.
- iv) The co-ordinates of the boundary pillars are not shown on the plan.
- v) Bore holes with two colour codes shown in the plan but not shown in the index.

### (3) Geological plan and section:

- i) Forest area should be shown with proper colour code.
- ii) All the cross sections are not matching with the geological plan.
- iii) Quarry benches with RL, road etc. are not properly shown in the sections.
- iv) RL should be shown both sides of the section.
- v) UNFC code for area considered for different categories of reserve / resource estimation should also be marked on the geological sections.

## (4) Environment plan:

- i) Forest area should be shown with proper colour code.
- ii) Proposed fencing around Haldi pit and Khswani old quarryare not shown. May be explained.
- iii) Bore holes with two colour codes shown in the plan but not shown in the index.
- iv) The environment plan of the lease area has not been prepared as per the Rule 32(5)(b) of MCDR, 2017.

## (5) Land use plan (Drg no. MEC/11/16/G252/GGR/08):

Area broken / used by road has not been shown. May be clarified.

### **Other Observation:**

- 1. Consent letter/Undertaking/Certificates ,07 as required under IBM Manual for appraisal of Final Mine Closure Plan, 2018 have not been furnished.
- 2. Undertaking with regards to maintenance of boundary pillars as per rule 12 (V) of MCR, 2016. Few photographs of Boundary pillars showing pillar no with coordinates may be attached.
- **3**. On front page balance reserve in the lease area, in terms of section 8A of MMDR Amendment Act' 2015 should also be mentioned.
- **4**. Since reserve is remaining in the lease area, proposal for exploration of entire lease area as per Govt. of India notification dated 27/03/2018 not furnished.
- **5**. Latest authenticated lease map of lease extension up to 2020 to be attached.
- **6.** Page-5, Finacial assurance date of issue is 20.10.2012 and valid up to 31.03.2017 have been mentioned need to be justified.
- 7. P-6: Balance estimated mineral reserve /resource in different categories of UNFC to be furnished separately for Forest and non forest area Unit of reserve wrongly given in tons.
- **8**. Para 3.7.1 3.7.2: Khasra details of Forest and non forest area in Annx-2 not given..
- **9**. Para 5.2.8: Area proposed for put to use in last Mining Plan not as per Manual, information on Forest non forest to be given separately.
- 10. Para 5.29: All violations and compliance of last three years not furnished.
- 11. Para 6.5: No of Boreholes drilled and spacing varies in different paras of text may be corrected.
- **12**. Para 6.5.1 and Details of prospecting /Exploration already carried not furnished in tabular form as per Manual.
- **13.** Para6.5.3: Sample locations may be shown on geological Plan. Latest analysis report of 10% of the total samples should be analyzed from Govt. accredited laboratories.
- **14**. Para6.5.5: Total lease area explored under various categories not as per Manual Not as per Manual, information on Forest non forest not to be given separately. Data under Non mineralized area and Area unexplored to be furnished.
- **15**. Para6.6.1: Unexplored strike length to be furnished, Bulk density calculation sheet on the basis of field test to attached.
- **16**. Para-6.6.2: Mineral resource & associated waste calculation table to be given in tabular form as per manual
- **17.** Para 6.6.3: Feasibility study report data pertains to 2012, need to be updated ,No violation s has been mentioned to be corrected.
- **18.** Para 6.6.4: Blocked resource backup calculation to be given.
- 19. Para 6.6.5: Justification of categorizing forest area reserve under (121) may be given.

- **20**. Para 6.6.7 & 6.6.8: Estimated and Balance reserve/resource are same justify, Forest and non forest reserve to be furnished separately, Reserve and resource to be given as on 31.03.2018.
- **21.** Para 6.10: Future exploration programme to be furnished as per Govt of India notification dated 27/03/2018.
- **22.** Para 11.4: Financial assurance Table not as per format. Forest data not furnished.
- 23. Latest copy of EC, FC and CTO from SPCB to be attached.
- **24.** Year wise final closure plan not attached.

### **PLAN & SECTION**

1. All plan & section should prepared as per rule 32 of MCDR, 2017.

### 2. Surface plan:

Forest, non forest area may be shown with different colour scheme.

Date of survey and signature of surveyor missing. Coordinates of Boundary pillars missing.

### **3.** Geological Plan and Section:

Colour schemes do not match. Samples locations are not marked on plan. Plan and section do not match. Mineralised area under UNFC not marked on plan and sections. Proposal for exploration of entire lease as per GOI notification dated 27.03.2018 not given.

- **4.** <u>Reclamation Plan</u>: Reclamation plan enclosed with no Reclamation proposal.
- **5.** Exploration Plan: Exploration Plan of entire lease area to be enclosed as per GOI notification dated 27/03/2018.

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