



भारत सरकार GOVERNMENT OF INDIA
खान मंत्रालय MINISTRY OF MINES
भारतीय खान ब्यूरो INDIAN BUREAU OF MINES
क्षेत्रीय खान नियंत्रक के कार्यालय
OFFICE OF THE REGIONAL CONTROLLER OF MINES



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No. MS/OTFM/06-ORI/BHU/2019-20

दिनांक / Date: 05.07.2019

To

Shri Ajay Kumar Patnaik,
Director & Nominated Owner,
M/s B. D. Patnaik Minerals Pvt. Ltd.,
Plot No-H-12, Civil Township,
Rourkela, Pin-769004,
Sundargarh, Odisha.

Sub: Review of Mining Plan of Alanda Limestone & Dolomite Mines over an area of 45.555 ha in Sundargarh district of Odisha of M/s B. D. Patnaik Minerals Private Limited submitted under Rule-17 (1) of MCR, 2016.

Ref: - i) Your letter no. nil dated 07.06.2019 received on 18.06.2019.
ii) This office letter of even no. dated 19.06.2019.
iii) This office letter of even no. dated 19.06.2019 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.

Sir,

This has reference to the letters cited above on the subject. The draft Review of Mining Plan along with Progressive Mine Closure Plan has been examined in this office based on site inspection carried out on 29.06.2019 by Shri Dayanand Upadhyay, Sr. Assistant Controller of Mines. The deficiencies observed are enclosed herewith as Annexure-I.

You are advised to carry out the necessary modifications in the draft Review of Mining Plan in the light of the contents vide Annexure-I and submit **three (3) firm bound and two (2) soft copies of the document text in CD in a single MS Word file (the drawing/plates should be submitted in Auto CAD compatible format and JPG format in resolution of 100x100 pixels on same CD)** with financial assurance under Rule 27 of MCDR' 2017 within 15 (fifteen) days from the date of issue of this letter for further necessary action. If the total page of annexures exceeds 50 (Fifty) then it should be submitted as separate volume. But reference of these annexures must appear in the Review of Mining Plan document. The plates are also to be submitted in separate volume.

The para-wise clarifications and the manner in which the deficiencies are attended should invariably be given while forwarding the modified copies of the Review of Mining Plan. It may be noted that no extension of time in this regard will be entertained and the Review of Mining Plan will be considered for rejection if not submitted within above due date. It may also be noted that if the deficiencies are not attended completely, the submission would be liable for rejection without further correspondence.

भवदीय / yours faithfully,

(HARKESH MEENA)

क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

Copy for kind information and necessary action to:

1. Shri Chandrabhanu Dash, Qualified Person, Geo Consultants Private Limited, Plot No-853, Gobind Prasad (Medical Lane), Mahavir Nagar (Infront of Radhika Complex/Reliance Fresh), Laxmisagar, Bhubaneswar-751006, Odisha.

(HARKESH MEENA)

क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

Scrutiny comments on examination of Review of Mining Plan of Alanda Limestone & dolomite Mine, over an area of 45.555 Ha of M/s B. D. Patnaik minerals Pvt. Ltd in Sundargarh district of Odisha State.

GENERAL

- i) On cover page the e-mail of the lessee has not been furnished. The expiry of lease period is not correctly furnished in light of section 8(A)(6) of MMDR Amendment Act 2015.
- ii) Chapter "Introduction": Mining operation is temporary dis-continued since 07/11/2009 therefore a brief review of present status of Mining lease to be furnished. Document 1st renewal mining lease and copy of lease deed has not furnished in annexure.
- iii) Page-6, the lease period has expired in 16/01/2015 further the extension of lease period and validity of lease has not been described alongwith valid lease deed.
- iv) It has been observed during field inspection that the corner pillar-G does not exist at the place. As per rule 12(v) of MCR 2016, the lessee shall at his own expense erect, maintain and keep repair all boundary pillars according to the Act and rules made thereunder with respect to the manner of construction. Therefore erection of boundary pillar-G certified with State Govt. may be submitted.
- v) The CCOM circular no.2/2010 and its addendum should be implemented.
- vi) All the annexure to be properly indexed/ numbered/ paged and signed by qualified person. All the certificates should bear dated signature.

GEOLOGY:

- i) Page-16, detailed description of geology of the lease area such as shape and size of the mineral/ore deposit, disposition various litho-units indicating structural features etc. to be given.
- ii) Page-16, name of prospecting agencies not furnished. In para-(e), details of prospecting/ exploration already carried out size prospecting pit should be mentioned. Expenditure incurred in various prospecting operation has not been furnished.
- iii) Page-20, The details of total lease area explored under UNFC have to be furnished in the tabular format provided below.

Total Lease Area: Ha						Remarks/ comments including reasons for not carrying out the exploration as per UNFC norms
Item of Information	Lease area explored as per UNFC norms (in Ha) as on dt.....					
	Total lease area = A+B+C+D+E					
	G1 Level	G2 Level	G3 Level	Explored and found non-mineralized with level of exploration (Remarks)	Un-explored lease area	
	A	B	C	D	E	F
Area as per level of exploration						
No. of BH drilled						
No. of BH considered for Resource						
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:.....						

- iv) Page-17, the proposed bore holes have not been described with core/non-core drilling and grid interval. All the drilled and proposed BH to be depicted on the Geological section along with mRL and its actual and proposed depth for better referencing. The details of the proposed boreholes have to be furnished in following tabular format. All the bore holes to be drilled should be proposed upto the end of 2019-20.

Year	BH no.	Northing	Easting	Collar RL	Core/RC/DTH	Meterage	Inclination	Forest/Diversified forest/non fores	Surface right/non surface right	Purpose of bore holes

- v) The Geological boundaries of exploration limit i.e. G1/G2/G3 etc. are not marked as per Minerals Evidence of Mineral Contents Rules 2015. Accordingly, the reserve/resource estimation calculation, geological plan/UNFC plan and Sections need to be revised.
- vi) Geological section is not prepared as per Minerals Evidence of Mineral Contents Rules 2015. The UNFC codes 222 not depicted in sections.
- vii) The reserve/resources estimated in G2 category while in annexure feasibility study report is enclosed. It may be justified.
- viii) Page 22-25, the reserve and resources as furnished in tabular form are not in chronicle order. The Geological reserve should be converted into mineable reserve after depletion of blocked mineral resources then mineable reserve should be derived with saleable and mineral reject.
- ix) The reserve and resources estimated is not as per the provision of MEMC Rules 2015. The blocked mineral reserve under 222 category not depicted. The grade of limestone has not been furnished. UPL not drawn correctly.
- x) Page-27(a) & 27(b), the UNFC has not been furnished in calculation table for geological and mineable reserve/resources.
- xi) As per guideline of "IBM manual on appraisal of Mining Plan 2014" at least 10% of total samples to be analyzed in accordance to BIS and reports from NABL accredited/Government Laboratory. Accordingly, BH wise sample details comprising of BH number, Samples generated, Samples analyzed, Ore Zone, OB Zone etc. (to be annexed) to be given in tabulated form.
- xii) Reporting of Mineral Resources in the format prescribed in Part IV-A of Minerals (Evidence of Mineral Contents) Rules, 2015 to be submitted.

MINING:

- i) Page-28, para-2.0, mining chapter is not described parawise in chronicle order as per IBM Manual Appraisal MP 2014.
- ii) Page-29-36, proposed method for excavation has not been described properly. The nos. of benches in ore & OB, top & bottom mRL, bench mRL considered during excavation.
- iii) Para-(a), the details of existing quarry in terms of size and shape and location has not been furnished.
- iv) Page-37, the average grade of saleable ore and mineral reject to be furnished. The bulk density considered for saleable and mineral reject should be depicted in bullet notes.
- v) Page-38(a), excavation schedule as furnished in tabular form has not been depicted with number of benches considered with their top and bottom RL.
- vi) Page-39, Para-e, layout of mine workings, layout of faces and site for disposal of overburden has not been described properly with height & width, haul road, no. of pits /block considered.
- vii) In the development plan for the year 2020-21 backfilling has been proposed but it has not been described in proposed method of working. Before backfilling of the quarry as proposed it should be ensured the exhaustion of ore body in terms of their depth & extension in the interest of mineral conservation.

- viii) The sequence of backfilling should be same as per original sequence of the litho units occurring in lease area. Exhausted area to be backfilled specified with mRL and year to year basis.
- ix) The quantity of Sub-grade/mineral reject to be generated during conceptual period and its future utilization and planning may be furnished.
- x) Conceptual mining plan, cumulative waste generation and top soil generation and protective measures have not been described properly. The conceptual period not furnished correctly.

Stacking of mineral reject/ sub grade material and disposal of waste:

- i) It should be insured that the ground proposed for dumping of OB/waste/top soil should be non-mineralised. Therefore before the dumping the area should be fully explored.
- ii) Terrace not properly shown in dump section as per plan. Old dumps are lying in safety zone therefore re- handling proposal may be furnished.
- iii) All existing Sub-grade dumps and waste dumps may describe with its location along with mRL in text. The top mRL of all above to be depicted clearly on plans.
- iv) Further, Build-up of dumps from year to year to be mentioned in text w.r.t. designed capacity of dumps, bottom and top mRL of individual terrace, dump slope, individual terrace height and slope with description of method & manner of disposal of waste should be mentioned.
- v) The proposal given for construction of retaining wall, garland drain to be given in view of proposed spread of the waste dump/mineral reject and mineral stacks.

Progressive Mine Closure Plan:

- i) Page-67, Human settlement has not been furnished with population distribution pattern around mines area, male female ratio, literacy etc.
- ii) Page-72, Back filling proposal has not been explained properly. The proposed backfilling bottom mRL, top mRL, quantity of backfilling year to year basis etc. may be given.
- iii) Page-74, year wise plantation covering number of saplings to be planted, location and area covered may be furnished.
- iv) Page-75-79, proposal under PMCP the plantation as proposed is not shown in reclamation plan. The slope of the should also be proposed under plantation.
- v) The amount of financial assurance should be calculated as per rule 27(1) of MCDR-2017 and submitted accordingly.
- vi) Updated air, water, noise, ground vibration and soil data with analysis from laboratory done at specified periodicity for last one year to be enclosed.
- vii) Under impact on land, cumulative land degradation at present, at the end of proposal period and at the end of conceptual period may be given referring to conceptual mining plan given in scheme of mining.
- viii) The location and schedule of environment protective measures to be given in text and all the monitoring station should be furnished with their coordinates.

Plates(General):

- i) All plans and sections shall show a scale of the plan at least twenty five centimeters long and suitably subdivided. All plans & sections prepared shall follow the sign conventions mentioned under MMR 1961.
- ii) Wind direction may show through wind rose diagram in key plan and environmental plan.
- iii) All plans and sections should be signed with date by certified Surveyor, Qualified Person, Mine Manager and Mining Geologist.
- iv) Magnetic Meridian and date of observation of should be given on all relevant plans.

v) DGPS plan duly certified by State Govt. has not been furnished. Lease plan as submitted is not legible.

vi) Date of survey not furnished in relevant plan and section.

Surface Plan:

- i) Latitude, longitude of all corner pillars with UTM co-ordinate may be depicted on the surface plan.
- ii) Few pillars may be correlated with some permanent ground features giving distance and direction. Different land use may be shown with colour codes.
- iii) Forest & Non forest area, Surface right acquired area etc. should be marked clearly over a Surface plan.

Geological Plan & Section:

- i) The structural features like dip, strike etc not shown in geological plan.
- ii) The UNFC has not been correctly depicted in geological plan and sections. The reserves/resources under different codes may be marked on geological plan and sections in different colour codes.
- iii) mRL of bore holes have not been marked in plan and section. Plan and section should be on same scales.
- iv) Limestone and dolomite not shown clearly. Dotted line shown in section is not defined. UPL is not marked correctly.

Year wise development plan:

- i) Yearwise wise progress of sub grade and waste dump may show clearly with different colour.
- ii) Each year development proposal to be shown in different color.
- iii) Development Plan and section should be on same scales. UPL should be marked in development plan.
- iv) Dump section is not matched with plan.

Environment plan:

- i) The Environment Plan as prepared should be satisfied the provision as laid down rule 32(5)(b) of MCDR2017.
- ii) The proposed and existing environment protective measures to be shown in environment plan. The drainage pattern of the lease area also to be shown on the plan.
- iii) The surface features lying in 500m buffer zone has not been shown.

Reclamation Plan: Proposals of land restoration/reclamation/rehabilitation, afforestation, waste dump management, etc should be depicted in Reclamation Plan yearwise with different colour codes.

Conceptual plan: Conceptual plan may be prepared considering mineralization as revealed from the borehole logs. One longitudinal section may also be submitted. Direction of run off from the area based on surface contours may be shown on the plan and the sections.