



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. MSM/FM/08-ORI/BHU/2017-18

Date: 31.07.2017

To

✓ Shri M. D. Rustagi,
Director & Nominated Owner,
M/s Bonai Industrial Co. Ltd.
Rungta Office, Main Road,
At/P.o - Barbil, Keonjhar,
Odisha- 758035

Sub: Approval of modification of Review of Mining Plan of Teherai Iron & Mn Mine along with Progressive Mine Closure Plan (PMCP), over an area of 137.46 ha in Sundargarh district of Odisha State, submitted by M/s Bonai Industrial Co. Ltd under Rule 17 of MCDR, 1988.

Ref: - i) Your letter No. BICO/ED/GEIO/2017-18/268 dated 10.07.2017.
ii) This office letter of even no. dated 14.07.2017.

Sir,

This has reference to the letter cited above on the subject. The draft of modification of Review of Mining Plan along with Progressive Mine Closure Plan (PMCP) has been examined in this office based on earlier site inspection carried out on 13.07.2017 by Shri G C Sethi, Deputy Controller of Mines. The deficiencies observed are enclosed herewith as Annexure I.

You are advised to carry out the necessary modifications in the draft modification of Review of Mining Plan in the light of the contents vide Annexure 1 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 or JPG format in resolution of 100x100 pixels on same CD)** with financial assurance under Rule 27 of MCDR 2017 of the Modification of Review of Mining Plan 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 modification of 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 modification of Review of Mining Plan. It may be noted that no extension of time in this regard will be entertained and the modification of 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.

Yours faithfully,

(HARKESH MEENA)

क्षेत्रीय खान नियंत्रक / Regional controller of Mines

ANNEXURE-I

SCRUTINY COMMENTS ON EXAMINATION OF MODIFICATION OF APPROVED MINING PLAN INCLUDING PROGRESSIVE MINE CLOSURE PLAN FOR TEHERAI IRON & MANGANESE MINE OF M/S BONAI INDUSTRIAL CO. LTD., OVER AN EXTENT OF 137.460 HECTARES, LOCATED IN TEHERAI & KOIRA VILLAGES, UNDER BONAI SUB-DIVISION OF SUNDARGARH DISTRICT OF ODISHA STATE, SUBMITTED UNDER RULE 17(3) OF MCR, 2016.

- (1) In the certificate from the qualified persons, the provisions of MCR, 2016 have been observed, instead the provisions of MCDR, 2017 should be furnished and necessary corrections may be made in the certificate accordingly.
- (2) The experience certificate of minimum five years in favour of the qualified persons Shri Sudip Kanti De and Shri Pramod Kumar Giri has not been enclosed as annexure-2. Besides, the name of Shri Sudip Kanti De is different in the academic qualification certificate & in ID proof enclosed as annexure-2. Accordingly, the name of Shri Sudip Kanti De mentioned at other places of the document may also be corrected accordingly.
- (3) Few photographs have been enclosed as annexure-3 but not a single photograph in support of existing pit/quarry has been enclosed in the referred annexure, which should be submitted.
- (4) The environmental monitoring report for ambient air, water, noise vibration etc. for the month of April 2017 from Cleenviron Private Ltd., has been enclosed as annexure-10, instead the same should be submitted for last four quarters for ease in monitoring.
- (5) The bulk density study report for iron ore & manganese from Mitra S.K Private Ltd., has been enclosed as annexure-19 but a valid NABL Accreditation certificate issued in favour of the aforesaid agency has not been enclosed. The NABL Accreditation certificate enclosed in favour of the aforesaid agency as annexure-22 has already expired on 02.02.2017.
- (6) The borehole analysis report from R.V.BRIGGS & Co. Private Ltd. and Mitra S.K Private Ltd., has been enclosed as annexure-20 but the valid NABL Accreditation certificate issued in favour of the aforesaid agencies has not been enclosed and the same should be submitted for ease in monitoring.
- (7) The copy of the Bank guarantee enclosed as annexure-26 is old one; thereby a fresh Bank Guarantee matching to the plan period should be submitted as per the requirement of Rule 27(1) of MCDR, 2017 replacing the enclosed one for clarity.
- (8) The copy of the explosive procurement license issued by the competent authority in favour of M/s B.I. Co. Ltd., has not been enclosed. Besides, a copy of the blasters license issued by the competent authority for carrying out blasting operations may also be submitted.
- (9) In 2nd para of the introduction chapter, the approval reference for good number of mining plan/scheme of mining has been given but the copies of approval letters of the same has not been enclosed & the same should be submitted for more informative. (Page No. 2 & 3)
- (10) The supplementary deed is mentioned to be executed on 02.05.2015 but the annexure reference for the same is missing, which should be furnished for more informative. [Para 2.0(iv)]
- (11) The location co-ordinates of the actual plantation done during the years 2016-17 & 2017-18 (as on 08.07.2017) should be furnished in the table given in the para under reference for ease in monitoring. [Para 3.3.9(C)]

(12) The location co-ordinates of the actual reclamation done during the years 2016-17 & 2017-18 (as on 08.07.2017) should be furnished in the table given in the para under reference for more informative. (Para 3.3.10)

(13) An extent of 113.572ha has already been explored by putting coring/non-coring boreholes as indicated in the para under reference but the balance un-explored area has not been proposed under exploration in the form of coring boreholes with 100m x 100m grid interval. The exploration proposal given in table -4.3 & 4.4 should include the entire un-explored area and the exploration proposal should be restricted to the financial year 2017-18. Accordingly, necessary modifications/incorporations may also be made in connected paras in the text with proper plate reference. [Para 1.0(e)(ii)]

(14) In F column of the table, an extent of 20.888ha of K.F & non-forest land is stated to have been applied for surrender, which appears to be no correct as the supplementary lease deed has been executed for the entire leased out area of 137.460ha, thereby necessary incorporations/modifications may be made accordingly. (Table -4.2)

(15) The exploration proposal has been given for the period from 2017-18 to 2019-20, instead the proposal should be restricted to the year 2017-18. Besides, the extent of area proposed to be explored during the year 2017-18 may also be furnished by adding one more column in the table for ease in monitoring. Accordingly, the information/data furnished in table 4.4 & other places of the document may also be revised. (Table -4.3)

(16) In estimation of mineral resources for iron ore, the recovery factor is considered as 90% of the total volume of excavation but the basis of such recovery is not known, thereby the recovery test should be conducted by any of the NABL accredited laboratory or by a Govt. Laboratory and a report to that effect should be submitted for ease in monitoring. Likewise, the recovery test report for manganese ore may also be submitted. (Table 4.6 to 4.8)

(17) The resources for iron ore and manganese has not been estimated as the entire leased out area has not been explored so far, which should be done and the information/ data in tables may be revised accordingly. (Table 4.17 & 4.18)

(18) The existing method of mining has not been furnished in detail, which should be discussed, including the existing status of pit/quarry, dump, reclamation, rehabilitation & afforestation etc. for both iron ore & manganese areas. Accordingly, the proposed method of mining may also be revised by giving proposed bench formation status both in overburden & in ore zone, dumping, reclamation & rehabilitation etc. for clarity. If the existing quarries are proposed to be developed /extended, the same may also be furnished. In the light of the above; the entire para may be revised. (Para 5.0)

(19) Average height & width of the benches of the pits are missing, which should be furnished. Besides, the existing status of both iron & manganese pits are given but the proposed status of the same during each year of the ensuing modification period has not given. Moreover, the mining operations have been proposed in a new location from 01.08.2017 to 31.03.2020 but the location co-ordinates of such area has not been given, which should be given with proper plate reference for ease in monitoring. (Table No. 5.1 & 5.2)

(20) (i) In the table furnished, under the heading **Insitu Tentative Excavation:** The following observations are made: (i) For the period from 2017-18 to 2019-20, the proposed status of OB/SB/IB generation, production of iron ore & mineral rejects generation has been furnished in tabular form but the bench/RL of the excavation planning has not been given, which should also be furnished by adding one more column in the table. (ii) The recovery percentage of the iron ore and generation of mineral rejects is missing. (iii) The location co-ordinates of the excavation planning for each year also not furnished and the same may also be given by adding one more column in the table with proper plate reference. (iv) The grades of iron ore, mineral rejects and the waste

material may also be furnished supported by authenticated chemical analysis report. Likewise, the excavation planning for manganese furnished in table No. 5.4 may also be revised. Accordingly, corresponding incorporations /modifications may also be made in connected paras in the text & relevant plates. (Table No. 5.3 & 5.4)

(21) Re-handling of dumps A, B & C are proposed during the ensuing modification period from 01.08.2017 to 2019-20 but the location co-ordinates of such dumps are missing, which should be furnished. Besides, the percentage recovery of iron ore from the dump re-handling is also not given and the same should be furnished supported by an authenticated recovery test report either from NABL accredited laboratory or from Govt. Laboratory. (Table No. 5.6)

(22) The name of the quarry(s)/location co-ordinates of the proposed workings should be furnished indicating the direction of advancement of quarry faces. Besides, the height, width & length of individual benches may also be furnished indicating the bench specifications/parameters for each year of the mine development. The status of dumps both for waste & mineral rejects/sub-grade and the location co-ordinates proposed for the same with size/capacity and direction of advancement may also be discussed. Moreover, the requirements of reclamation & rehabilitation may also be furnished. Accordingly, corresponding incorporations/modifications may also be made in connected paras in the text. [Para 5.1(A)]

(23) The proposed dimension of the pit by end of each year of the mining operation is missing, which should be furnished. Besides, the extent of area proposed to be degraded on account of mine excavation by end of each year may also be furnished. All should be furnished in tabular form. Accordingly, the same for New Pit & manganese pit may also be furnished in connected paras in the document for more informative. (Para 5.2)

(24) There is mention that, the party has already drilled 453 nos. of boreholes but the extent of area covered by such boreholes has not been given, which should be furnished. Besides, the extent of lease area not explored so far may also be furnished. (Para 5.12.1)

(25) There are 5000 nos. of saplings are proposed in each year of the ensuing modification period but the location co-ordinates of such plantation should be furnished with proper plate reference for ease in monitoring. All should be presented in tabular form. (Para 5.12.4)

(26) The post mining land use has been furnished in tabular form but the extent of area put to use in different counts by end of each year of the ensuing modification period is missing, which should be furnished by adding one more table in the para under reference for more informative. (Para 5.12.5)

(27) The comment on quality of water encountered in the area has not been given and the same may also be furnished. (Para 6.2)

(28) The bulk density of the dumped material is considered as 2.0 but no authenticated test report for the same has been enclosed, which should be submitted. Moreover, the grade of the dumped material is considered as -45%Fe but no authenticated analysis report for the same has been submitted. Besides, the location co-ordinates of the existing dumps A, B & C also not furnished and the same should be given by adding one more column in the referred table for ease in monitoring. (Table 7.1)

(29) The location co-ordinates of backfilling is missing in the referred tables, which should be furnished by one more columns in respective table for more informative. (Table No. 7.11, 7.12 & 7.13)

(30) In the remarks column it is mention that, if market permits, the low grade iron ore will be dispatched to the buyers destination but alternatively nothing has been mention about the

provisions for stacking the same for future utilization, unless there is no immediate market intake for the low grade iron ore. The table may be revised suitably. Likewise, the table No. 7.16 furnished for low grade manganese may also be revised accordingly. (Table No. 7.14 & 7.15)

(31) In the last column of the table, the waste materials proposed to generated, out of the re-handled material has been furnished but the name of the proposed dump & its location co-ordinates has not been given, which should be furnished with proper plate reference and the table may be revised accordingly. (Table No. 7.18)

(32) The proposed back filling for each year of the ensuing modification period has been furnished in the referred table but the location co-ordinates of such backfilling has not been given, which should be furnished. Besides, the quantities of waste materials required for the purpose also not furnished and the same should be mentioned by adding one more column in the table for clarity. (Table 11.12)

(33) The reclamation & rehabilitation proposal for the ensuing modification period has been furnished in the table given under reference, instead separate table for each year should be furnished and the para 11.3.1 may be revised accordingly. (Table No. 11.14)

(34) The proposed plantation schedule for each year of the modification period has been furnished in tabular form but the location co-ordinates of such plantation is missing, which should be furnished. Besides, the column furnished for **Actual** should be deleted. (Table No. 11.16)

(35) The name & contact number of the person responsible during the emergency should be furnished. Besides, nearest fire stations, hospitals and police station is required to be mentioned for more informative. (Para 11.4)

(36) All the plan & sections submitted along with the modification of mining plan should be certified by the Qualified Persons indicating that, **the plans and sections are prepared based on the lease map authenticated by the State Govt. of Odisha and found to be correct.**

(37) DRG No. 01 (Key Plan): The details of the deficiencies found on the plate are as follows: (i) Ten KM radius of the lease area have been drawn but 5KM radius has not been marked, which should be depicted. (ii) The index reference given for quarry is not matching with that of the plan portion of the plate. (iii) The index reference given for air, noise & water is not to be seen on the plan portion of the plate. (iv) What is represented by the thick red lines marked on the plan should be specified with proper indexing. (v) In northern & southern of the 10KM buffer zone, certain features are marked with thick dotted lines, which should be specified with proper index reference. (vi) The prominent features such as forest, nala/river/water body, public road and any other features existing within the drawn radius of 5KM may also be clearly depicted with the necessary index reference. (vi) Moreover, 25cm long scale has also not been marked on the plate.

(38) DRG No. 02A (Joint surveyed ML boundary map): (i) As per the contents for plates, the enclosed joint surveyed map is considered as ORSAC DGPS map but the same has neither been authenticated by the competent authority of ORSAC nor any letter from ORSAC enclosing the plate has been submitted. Besides, the authenticated DGPS map of ORSAC also not been certified by state authorities for its acceptability. (ii) The mining lease has been granted and executed over an extent of 137.460ha but the so called ORSAC DGPS map has been prepared over an extent of 135.07ha, which is not matching with the extent of lease area. (iii) Further, the plate has not been geo-referenced as per the requirement of CCOM circular No. 2/2010.

(39) DRG No. 03 (Surface Plan): (i) The location for **shorting and picking yard** has been marked on the plan but the index for the same is missing. (ii) There are four notations for existing bore holes has been given in the index but the same has not been clearly specified on the plan. Besides, the depiction for the same on the plan also not distinctly marked. (iii) The pillar co-ordinates of all the lease boundary pillars have not been furnished. (iv) Atleast three permanent ground control points beyond the lease area have not been selected, which should be done and latitude & longitude of those ground control points should be furnished. Besides, the ground control points need to be linked with boundary pillars. (v) A single person has been signed against the names of two Surveyors, which is not correct, instead only one person for one surveyor should be signed against his name or two surveyors may signed against their names specified on the plate ensuring that, the persons signed as surveyors have the competent to sign the plans.

(40) DRG No. 04 (Geological Plan): (i) As per the new Minerals (Evidence of Mineral Contents) Rule,2015, the level of exploration at different stages (G1,G2,G3,G4) and unexplored area should be properly defined in tabular format and the same should be marked on the geological plan. (ii) New exploration proposal covering the entire lease area to the G2 level of exploration should be proposed and the same should be completed before 31.03.2018, instead of proposing the exploration schedule for three years i.e. 2017-18 to 2019-20. Accordingly, necessary modifications /incorporations may also be made in Geology and Exploration chapter & any other places of the document.

(41) DRG No. 05(A) [Development Plan of Quarry & Dump (01.08.2017 to 31.03.2018)]: The un-touch portion in between Chatan Pit, Manganese Main Pit, New Pit & applied surrendered area has been left out during the ensuing modification period, instead merger proposal for all the three pits should be proposed followed by backfilling of the mined out areas and accordingly, all the development plan & dump plan and relevant development sections submitted along with the document should be revised. In addition to the above, all other relevant plates submitted along with the document may also be revised. Accordingly, necessary incorporations/ modifications may also be made in connected paras in the text of the document.

(42) DRG No.06 (Environment Plan): The index reference given for existing quarry, Manganese quarry & mineral stack yard is not matching with the plan portion of the plate. Besides, all the existing features available within 500m radius of the lease area may also be marked and the plate may be revised accordingly.

(43) DRG No.10 (Conceptual Plan & Sections): Conceptual plan & sections should be furnished showing the details of mining activities upto the lease period & the plate may be revised accordingly.