

भारत सरकार  
खान मंत्रालय  
भारतीय खान ब्यूरो  
क्षेत्रीय खान नियंत्रक का कार्यालय

No. MS/FM/04-ORI/BHU/2017-18

Plot No. 149, Pokhariput  
Bhubaneswar – 751 020  
Date: 03.07.2017

To

Shri Prasanna Kumar Panda, ( constituted Attorney Cum Unit Head)  
Essel Mining & Industries Ltd,  
At/P.o – Barbil,  
Dist – Keonjhar, Odisha - 758035

Sub: Approval of Review of Mining Plan of Kasia Iron & Dolomite Mine along with Progressive Mine Closure Plan (PMCP), over an area of 194.196 Ha. in Sundargarh district of Odisha State, submitted by M/s Essel Mining & Industries Ltd under Rule 17 of MCR, 2016.

Ref: - i) Your letter No. EMIL/GEOL/175/2017-18 dated 12.06.2017 received on 14.06.2017.  
ii) This office letter of even no. dated 14.06.2017.  
iii) This office letter of even no. dated 14.06.2017 addressed to Director of Mines, Government of Odisha copy endorsed to you.

Sir,

This has reference to the letter cited above on the subject. The draft Review of Mining Plan along with Progressive Mine Closure Plan (PMCP) has been examined in this office based on site inspection dated 24.06.2017 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 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 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 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 final 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.

Yours faithfully,

(HARKESH MEENA)

Regional controller of Mines

**SCRUTINY COMMENTS ON EXAMINATION OF SCHEME OF MINING & PROGRESSIVE FOR KASIA IRON AND DOLOMITE MINE OF M/S ESSEL MINING & INDUSTRIES LTD., OVER AN EXTENT OF 194.196 HECTARES, LOCATED IN KASIA 'KA', KASIA 'KHA', JHARGAON, KOLHABARPADA & TONTO VILLAGES, UNDER BARBIL TAHASIL OF KEONJHAR DISTRICT OF ODISHA STATE, SUBMITTED UNDER RULE 17(1) OF MCR, 2016 AND RULES 11(3) & 23 OF MCDR, 2017.**

(1) (i) On examination of the front cover, it is found that, the document has been submitted for scheme of mining, under Rule 17(1) of MCR, 2016 & Rule 11(3) of MCDR, 2017 but under the MCR, 2016 & MCDR,2017, there is provisions for submission of scheme of mining. Therefore, if there is no valid approved mining plan/scheme of mining, then in this case **Review of Mining Plan** should be submitted under Rule 17(2) of MCR, 2016. Accordingly, necessary modifications/incorporations may also be made at other places in the document. (ii) Full postal address of the company & the registration number allotted by IBM, under Rule 45 of MCDR, 1988 also missing. (iii) The fresh grant of mining lease is indicated to be for 20 years from 14.09.1955, which should be checked & corrected supported by the copy of the lease deed. (iv) The lease period is stated to be extended upto 31.03.2020 but the copy of the lease extension letter from the state authorities has not been enclosed. (v) The document has been submitted for the period from 2016-17 to 2019-20 but the financial year 2016-17 has already lapsed, thereby the proposed period should be for 2017-18 to 2019-20 & the block period of the document should be for the period from 2016-17 to 2019-20.

(2) In the consent letter/undertaking/certificate from the applicant, the consent has been given for preparation/modification of the scheme of mining but provisions for scheme of mining is not there in the MCR, 2016 & MCDR,2017. Moreover, the consent letter has been signed by Shri Prasanna Kumar Panda in his capacity as Constituted Attorney cum Unit head and the power of attorney is given by Shri S.K. Daga one of the director of the company, instead a resolution passed by the Board of Directors of the company nominating Shri Panda as owner of the mine/company should be submitted.

(3) The certificate from the qualified persons is given under MCDR, 2017 for correctness of the scheme of mining but the certificate is not in correct form, thereby necessary corrections may be made in the certificate accordingly.

(4) The copies of lease deed executed in different occasions have not been enclosed, which should be submitted for more informative.

(5) The copy of the Form D, dated 02.09.2004 for lease renewal has been enclosed as annexure-01 but the renewal status of the lease has not been furnished, which may be submitted.

(6) Few pages of the enclosed annexure-01C is not legible and the same should be replaced by fresh legible copies for more informative.

(7) The copy of the State Govt. order, dated 20.08.2016 referred annexure-01E has not been enclosed and the same should be submitted.

(8) As per the enclosed annexure-06, an extent of 6.891ha are is earmarked for mine roads but in the scheme of mining/review of mining plan, an extent of 7.609ha area has been utilised for roads, which is not permitted.

(9) The consent order, dated 15.03.2012 from State Pollution Control Board, Odisha has been enclosed as annexure-07 but the same has already expired on 31.03.2016, thereby a valid consent for the same should be submitted.

(10) A copy of the S.S WL conservation plan has not been submitted along with the letter, dated 13.06.2011 enclosed as annexure-08, which should be submitted for more informative.

(11) The copy of the list of the Board of directors for other companies has been enclosed as annexure-10, instead the same for M/s Essel Mining & Industries Ltd., should be submitted indicating the phone/fax/e-mail ID of all the Board of Directors for ease in monitoring.

(12) The excavation planning for the period from 2017-18 to 2019-20 has been furnished in tabular form as annexure-12 but the location co-ordinates of such excavation planning is missing, which should be furnished by adding one more column in the tabular annexure.

(13) Air, drinking water, ground water, noise, STP water & surface water etc. for two quarters has been enclosed as annexure-13; instead the same for all four seasons of the year should be furnished. Besides, a valid NABL Accreditation certificate in favour of B.S. Envi-Tech Pvt. Ltd may also be submitted.

(14) The Academic qualification in support of the qualified persons has not been enclosed along with the annexure-14, which should be submitted along with their ID proof for more informative.

(15) The copy of the explosive procurement license issued by the competent authority in favour of M/s Essel Mining & Industries 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.

(16) A copy of the valid Bank Guarantee matching to the proposed period from 2017-18 to 2019-20 has not been enclosed and the same should be submitted.

(17) The chemical analysis report of iron ore samples has not been enclosed and the same should be obtained either from a NABL accredited laboratory or from a Govt. laboratory & enclose along with the document for more informative.

(18) It is found that, a good number of boreholes are already drilled in the lease area but the litho logs for such holes has not been enclosed as annexure to the document, which should be submitted indicating coring & non-coring status of the boreholes for more informative. Besides, the borehole analysis report may also be submitted.

(19) The DGPS surveyed map/plan in compliance to CCOMs circular No.2/2010 and its addendum dated 21.09.2011 & 11.06.2014 regarding geo-reference cadastral map has not been submitted.

(20) On examination of the contents for plates, it is found that, the plate for Reclamation plan has not been submitted and the same may done by depicting the proposed reclamation, rehabilitation & afforestation etc. for ease in monitoring. Besides, the plates has been numbered in the manner like EMIL/KIDM/SOM/2016-20/01, instead the plates should be either numbered like 1,2,3 etc. or I,II,III for ease in identification.

(21) In the 1<sup>st</sup> para of the introduction chapter, it is mention that, originally, the lease was granted & executed for iron ore and subsequently the Dolomite was included in the lease but the copies of such deeds has not been submitted along with the document. Besides, it is also found that, the lease was granted to S. Lal & Co. but nothing has been mentioned about the transfer of lease from S. Lal & Co. to M/s Essel Mining & Industries Ltd., which should be furnished supported by documentary evidence. Moreover, the copy of the Form D & J for 1<sup>st</sup> renewal has not been enclosed. (Page No.1)

(22) In the 1<sup>st</sup> para in the page under reference, a mentioned has been made about the submission status of scheme of mining for the period from 2016-17 to 2019-20, which is not correct, instead of scheme of mining, it should be mentioned as Review of Mining Plan. Even the proposed period 2016-17 to 2019-20 is not required to be quoted in the introduction chapter. (Page No.1)

(23) In 3<sup>rd</sup> para in the page under reference, a mention has been made about the completion of joint survey work for preparation of Geo-referenced Cadastral map but such references are uncalled for in the document and must be erased. (Page No.2)

(24) The professional experience claimed by both the qualified persons are not supported by documentary evidences, thereby the same may be submitted. Besides, the postal address of the qualified persons furnished in the para is not matching with that given in the consent letter from the applicant; thereby the correct address should be furnished. [Para 1.0(f)]

(25) In 2<sup>nd</sup> sub-para of the para under reference, it is mention that, the lease is entitled to be extended upto 31.03.2020 as per the MMDR Act, 2015 but the extension letter from State Govt. of Odisha has not been enclosed, which should be submitted. Accordingly, necessary corrections may also be made in the introduction chapter and other relevant places of the document. [Para 2.0(a)]

(26) The actual achievements of plantation for the period from 2011-12 to 2014-15 has been furnished in 3<sup>rd</sup> column of the 1<sup>st</sup> table given in the para under reference but the location co-ordinates of such plantation is missing, which should be furnished by adding one more column right to the table with proper plate reference for ease in monitoring. [Para 3.3(iii)]

(27) During the year 2001-02, there are 25 nos. of RC drill holes & 6nos.of CD holes were made and likewise during the year 2006-07, 45 nos. of CD holes & 25 nos. of RC drill holes were made but the borehole logs & analysis report in support of such holes has not been enclosed, which should be submitted. Besides, the extent of lease area already explored by putting the boreholes may also be indicated. **The balance un-explored area should be explored by drilling core boreholes atleast G2 level. 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)]

(28) All the samples from the boreholes were mentioned to be analysed with different NABL accredited laboratories but no such analysis report has been enclosed along with the document and the same should be submitted. Atleast 10% of the analysis should be done by third party NABL/Govt. Lab. [Para 1.0(e)(iii)]

(29) Existing method of mining has not been furnished in detail as per the heading of the para, which should be discussed, including the existing status of dump, reclamation, rehabilitation & afforestation etc. for more informative. Besides, nothing has been discussed about the proposed method of mining and the same should also be furnished 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 2.0(A)(a)]

(30) In the table furnished, under the heading **Insitu Tentative Excavation:** (i) For the period from 2017-18 to 2019-20, the proposed status of OB/SB/IB generation, production of iron ore & sub-grade 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, sub-grade & waste generation 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. (v) The grades of iron ore, sub-grade material and the waste may also be furnished supported by authenticated chemical

analysis report. Accordingly, corresponding incorporations /modifications may also be made in connected paras in the text & relevant plates. [Para 2.0(b)(I)]

(31) Under the heading land use pattern, it is mention that, the details break-up of forest and non-forest area is depicted in the table below but no such information/data is furnished. Therefore, the land use pattern both for forest and non-forest land should be furnished in tabular form. (Page No.28)

(32) In the 1<sup>st</sup> table given in the page under reference, the existing land use and the proposed land use for mining is mentioned to be the same extent of area, which should be checked & corrected. (Page No.28)

(33) The existing sub-grade dumps 1 to 5 are proposed to be re-handled but the location co-ordinates of such dumps are not given. Besides, the Fe content in the dumps are given in last column of the table but authenticated chemical analysis report in support of the grades of each dump has not been submitted. Moreover, it is not known, whether the entire dumped sub-grade materials are salable or certain percentage of the same is salable should be clearly indicated. The year wise re-handling proposal for the above referred sub-grade dumps may also be furnished and the para may be revised accordingly. [Para 2.0(b)(II)]

(34) In the page under reference, it is mentioned that, no re-handling of materials from the dump during the plan period is envisaged, if it is so, why re-handling proposal has been furnished in page no.28 should be explained. Even if, no dump re-handling is proposed during the proposed three years period, the status of such dumps need to be furnished as required in para 2.0(b)(II). (Page No.29)

(35) 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 & sub-grade materials & 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. In the light of the above, the information furnished in para 2.0(e) may also be revised. [Para 2.0(d)]

(36) Ultimate pit dimension of the pit is indicated to be for 384m x 591m but the depth of the pit is not given. Besides, there are 2 existing quarries/pits are found in the leas area but the ultimate dimension of a single pit has been furnished. Moreover, nothing has been mentioned about the merger of the pits anywhere in the document. Therefore, necessary modification/incorporation should be furnished in relevant paras in the document. (Page No. 34)

(37) It is found that, the reserves have been estimated based on the exploration done as on January 2009, which is not acceptable now. This is to mention that, 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 defied in tabular format and accordingly, the category of reserves & resources furnished in the para under reference should be revised. [Para 2.0(f)]

(38) It is mention that, the detailed hydro-geological study of the area was carried out by Regional Director, Central Ground Water Board but no report for the same has been enclosed along with the document, which should be submitted. [Para 3.0(a)]

(39) The existing top & bottom RLs of the mine working is missing, which should be furnished for more informative. [Para 3.0(a)]

(40) The quality of water encountered in the area has not been mentioned and the same may also be furnished. [Para 3.0(c)]

(41) Under the heading **Sub-Grade Ore**, a table has been furnished for the existing sub-grade dumps but nothing has been given about the proposed generation of the same during each year of the ensuing three year period and the manner of disposal of the same, which should be discussed and the para may be revised accordingly. [Para 4.0(a)]

(42) Nothing has been given about the proposed size /capacity /number of terraces /length & number of retaining wall /garland drains etc. for the dumps proposed to be made during the ensuing three year period and the same should be furnished along with their location co-ordinates with proper plate reference for ease in monitoring. [Para 4.0(b)]

(43) Manner of disposal of waste generated during the each year of the proposed three years period should be furnished instead of giving the existing status of sub-grade & waste dumps available in the lase area and the para may be revised accordingly. [Para 4.0(c)]

(44) The end use for industry specification is given for the Fe grades 62 to 64%, whereas, the reserves have been estimated for the Fe grades varies from 54-58, 58-60 & >60% Fe respectively. Thus, major quantities of production proposed from the mine are suspected to be non-salable. Therefore, the end use specification should be revised suitably. [Para 5.0(a)]

(45) It is found that both lumps and fines of iron ore is proposed to be produced from the mine but nothing has been mentioned about the percentage generation of lumps and fines, which should be given and the para may be revised accordingly. [Para 5.0(c)]

(46) The flow sheet for the screening/crushing unit has not been given and the same should be furnished in the para under reference. [Para 5.0(e)]

(47) Pit/quarry wise extent of area proposed to be degraded in each year of the ensuing three year period should be furnished. Besides, pit wise extent of area utilized for dumping, reclamation, rehabilitation & afforestation for each year of the aforesaid period may also be furnished. All should be furnished in tabular form and rest of the things should be erased. (Para 8.3.1)

(48) In 1<sup>st</sup> row of the table, the items for afforestation in relation to dump management has not been properly addressed for the period from 2017-18 to 2019-20 and the proposal given in the tables may be revised suitably. (Page No. 63 to 65)

(49) 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 8.4)

(50) On examination of the table, it is found that, in item No.3, an extent of 1.880ha of waste dump site has been considered as fully reclaimed & rehabilitated. Similarly, in item No. 12, an extent of 7.099ha of area has been considered as already reclaimed during the 1<sup>st</sup> RML period but the claim made in the table for the same has no authenticity, thereby the financial assurance should be computed over an extent of 105.699ha instead of 96.720ha. Accordingly, the calculations given for financial assurance in page No. 71 should be revised. (Para 8.6)

(51) The financial assurance in the form of Bank Guarantee has not been submitted, instead an undertaking for financial assurance has been submitted, which is not correct, thereby bank guarantee for 105.699ha @ Rs.300000/ha should be submitted and the page may be revised accordingly. (Page No.71)

(52) All the plan & sections submitted along with the Review of mining plan should be certified by the Qualified Person 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.

(53) Drawing No. 01 (Key Plan): The details of the deficiencies found on the plate are as follows: (i) Single index reference is given for mettaled /un-mettaled roads, instead two separate indexes for the same should be furnished. Accordingly, the feature for different types of road may also be depicted on the plan portion of the plate. (ii) Direction of flow of River/nala is missing on the plan portion of the plate. (iii) The index reference given for reserved forest is not matching with that of the plan. (iv) Population of the villages falling within 5km radius of the lease area also not furnished in the plan portion of the plate. (v) 25cm long scale has not been marked on the plate. (vi) The mining faces are shown beyond the lease area, which should be justified with valid reasons.

(54) Drawing No. 02(Lease Plan): The lease plan submitted along with the document has not been authenticated by the State authorities, therefore, not acceptable in this form. Besides, the lease has not been renewed so far even after the fresh grant of the mining lease. The mining lease was granted & executed over an extent of 297.444 ha or 735.00 acres but the 1<sup>st</sup> & 2<sup>nd</sup> renewal has been applied over an extent of 194.196ha, thereby in addition to the authenticated lease plan, over an extent of 194.196ha, the copy of the original lease plan may also be submitted.

(55) Drawing No. 03 (Surface Plan): (i) The index reference given for plantation area is not matching with that of the plan. (ii) The index reference given for old dump is also not matching with that of the plan portion of the plate. Besides, the existing dumps are not named /numbered for their identification. Moreover the spot levels for the dumps also not furnished. (iii) The coir matting shown in the index as well as on the plan portion of the plate are not in existence as found during the field visit of the area, thereby the same should be erased not only from this plate but also at all other plates submitted along with the document. (iv) The index reference given for sub-grade stack is not to be seen on the plan portion of the plate, which should be correctly depicted. (v) The pillar co-ordinates of all the lease boundary pillars have not been furnished. (vi) At least three permanent ground control points beyond the lease area has not been selected, which should be done. Besides latitude and longitude of those ground control points should be furnished and the ground control points need to be linked with boundary pillars. (vii) Surveyor's signature is missing, which should be signed by a competent surveyor.

(56) Drawing No. 04 (Geological Plan): (i) An index reference for basement has been given, instead the same for particular rock type/lithology should be given. Accordingly, the plate submitted for geological sections may also be revised. (ii) 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. (iii) During the inspection it was found that, many of the already drilled boreholes have been closed in the ore zone without any proper justification. Also, the borehole logs have not been enclosed along with the document. (iv) 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. Besides, certain boreholes also to be proposed adjacent to those boreholes which were terminated within the ore zone with the purpose to prove the depth continuity of the ore body. Accordingly, necessary modifications/incorporations may also be made in Geology and Exploration chapter.

(57) Drawing No.05 (Geological Sections): The geological index given in the geological sections are not matching with that of the geological plan, thereby the indexing as well as the lithology for sections should be revised in such a way that, the same will match with the geological plan.

(58) Drawing No. 06(A) (Development Plan & Section (FY 2017-18): (i) The lithology given in the development cross sections are not matching with that of the plan, thereby the sections should be drawn in such a way that, the same will match with the plan. (ii) In north block, the advancement of the bottom most bench has been proposed towards south and southwestern side followed by subsequent higher benches but advancement of the top most bench has not been proposed for advancement, thereby it is quite impossible to develop the quarry in north block. Therefore, suitable proposal for bench advancement should be given and the plate may be revised. Accordingly, the plates submitted showing the development plan & sections for the years 2018-19 & 2019-20 may also be revised.

(59) Drawing No. 07 (Dump Plan & Section): The dumping proposal for each year of the proposed period has not been depicted with different colour codes, which should be done and the dump sections may also be revised accordingly. Besides, nothing has been given about the proposed sub-grade stacks and the same may also be depicted for each year of the aforesaid period.