

Inspection report cum scrutiny comments in respect of Modification of approved mining Plan of Mandadi Limestone mines of M/s KCP Limited over an area of 50.41 ha situated in Sy. no. 673,675,676 & 689/2-16 of **Mandadi block-II Reserve forest**, Mandadi village, of Veldurty (M), in sy. no. 656/11-B8 in Polepalli Village in Durgi Mandal and in sy. no. 875(P) of Mandadi village, of Veldurty (M) of Guntur district of Andhra Pradesh.

General	
1	Lease period as per G.O order 15.10.20105, is expiring on 19.09.2017, but order from State government for extension of lease period for subsequent period should be submitted.
2	The document should have been submitted as “modification to the approved mining plan” under rule 17(3) of M(OHEM)Rules 2016 instead of Review of mining plan as the lease period is extended . Accordingly the same should be modified in letter, certificates, plates and in relevant part of the document.
3	Sub rule and rule of M(OHEAM)C Rules 2016 under which the document submitted should be furnished in cover page relevant para etc..
4	Proposed Plan period should have been furnished as 2017-18 (from 19.09.2017 to 31.03.2018) to 2021-22.
5	Lease area is situated in sy. no. 673,675,676 & 689/2-16 of Mandadi block-II reserve forest, Mandadi village, of Veldurty (M), in sy. no. 656/11-B8 in Polepalli Village in Durgi Mandal and in sy. no. 875(P) of Mandadi village, of Veldurty (M) of Guntur district of Andhra Pradesh. The above details should be incorporated in cover page.
5A	All the tables should be serially numbered and index of the same should be submitted.
6	Total forest land is furnished as 34.82, but additional area of 1.14 ha forest land is not included, which needs correction.
7	The new MC&D Rules had been notified in March 2017 whereas in certificate furnished by qualified person is for observance of MCDR,1988 in the document. The qualified person should be updated and prepare the document in compliance of the new MCDR, 2017 and submitted.
8	The person who is signing the document should be nominated by the board of directors of the company, copy of the resolution of board of directors should also be submitted.
9	Introductory chapter submitted should clearly spell out the mining history, company details, its captive plants, future plans if any may be given. Also specifying various statutory clearances like, EC, FC, CTO, Consent To Establish etc. in respect of the total lease area , may be given with documentary evidence.
10	There are contradictory statements, like amalgamation of four leases in to one lease instead of three leases, etc. has been furnished in the document, which needs correction.
11	The details in the document should be furnished as per the format of “ IBM manual for appraisal of mining plan 2014” only. For ex. owner of the lease is furnished in page no.4, which is not as per the format.
12	The details of earlier approved MP/SOM/MMP etc. should be furnished since from the beginning in tabular form for easy reference.
13	Latitude & Longitude of all the ML pillars should be furnished in page no.6 in para 2.c.
14	Colour photographs should be submitted instead of xerox copy.
15	CCOM circular regarding geo reference cadastral map of the lease area should be implemented.
16	Documentary proof in respect of permanent and present address of the person signing the

	document should be enclosed.
17	Valid photo identity proof and address proof (present & permanent) of the person signing the document should be submitted.
Review of approved modified mining plan	
18	Review of earlier approved proposal should be furnished in to-to along with the reasons for deviations if any.
19	Review should be carried out for the last review period only, i.e. 2017-18 (up to 19.09.2017) only.
20	Copy of Form-J, Form-K in respect of bore holes drilled duly signed should be submitted
21	It was proposed to collect the pink Limestone samples from pit bottom to assess its utility for blending without getting diluted with bottom shale, but the work done against it is not reviewed.
21A	Working has been carried out with 7.5 meters safety zone of the lease area, which needs justification.
22	Some colour photograph covering mining operations including quarries, waste dumps, sub-grade stocks, haul road, processing plant, protective measures like retaining wall, check dam and garland drain, settling pond etc. and other area details are not enclosed.
23	Review of progressive mine closure proposal should be carried out and submitted with supporting document.
24	Review on afforestation proposal submitted is incorrect,
25	Para 3.6.0 should be modified in view of content at sl. No.2.
Geology	
26	Part of pink limestone is reported to be of sub-grade as per approved document, but the details of the same is not incorporated in the document.
27	Bore holes/ trenches carried out earlier in the lease area should be given in tabular form incorporating year of exploration, no. of bore holes/ trenches, max./min. depth drilled, total meterage, remarks etc.
28	Page no.15, expenditure incurred in respect of exploration carried so far should be furnished in addition to the details furnished.
29	Copy of analysis report from NABL lab should be submitted for supporting the data furnished in page no. 14 & 15
30	Area explored under G1,G2,G3 level of exploration should be furnished in tabular form with bore hole grid interval.
31	Ore between 14.95% -18% SiO ₂ has not been considered as sub-grade ore, which cannot be acceptable..
32	Reserves and resources should be reassessed based on actual field condition, bore holes drilled as per content at sl.no.26
33	UNFC code should be depicted in geological plan and section
34	Reserves should have been arrived as on date by considering the reserves of earlier approved document deducting the production achieved during that plan period and by adding additional reserves established based on exploration carried out if any.
35	Different varieties of limestone is observed in the lease area, analysis of the same should be furnished for easy reference.
MINING	
36	Status of present mining in the lease area should be furnished, incorporating details dimension of quarries, no. of benches in ore and waste with their height and width etc. may be given in para

	2.A.a.
37	Layout of mine workings has not been described.
38	Production proposal should be modified so that remaining reserves could be exploited within this plan period and mine closure activities could be started as early as possible. Relevant para should be suitable modified.
39	Year wise proposal should have been submitted as 19.09.2017 to 20.17-18 (for first year)
40	Production proposal should have been submitted from one end of lease to other end so that closure activities can be started as early as possible.
41	Excavation proposal of 'pink Limestone' from pit bottom for its utility for blending and stocking separately as per revised threshold value of limestone should be furnished.
42	It is stated that a drain channel is proposed to divert storm water, but the details of the same has not been furnished in the text and depicted in relevant plans and sections.
43	Waste dumping has been carried out over mineralised area, which needs to be re-handled for excavation of ore beneath it; accordingly dump re-handling proposal should be furnished.
44	Computation of machinery requirement should be modified in view of comment at sl. No. 37.
45	Ore was observed dumped in waste dump yard, its quality & quantity should be assessed and recovery of the same by re-handling the dumps should be furnished.
46	Depth of bore hole considered for 6 m bench height is 6 m, which is impractical, sub-grade drilling of 10% of bench height has to be taken in to consideration, accordingly computation made should be modified for Drilling machine.
47	Spacing of bore holes considered is on lower side, which needs correction.
Conceptual plan	
48	Conceptual plan should be modified in view of comment at sl. No.38.
49	Life of the mine based on rate of exploitation should be furnished in page no.32
50	Area broken up for pit development is submitted different at different para of the document, refer page no.33 (21.985 Ha), 66 (19.987 Ha)etc., which should be reconciled and submitted.
51	Economic depth and UPL has not been determined for conceptual period, reclamation of complete mined out area has not been proposed.
52	The existing dump with its extent, quantity accumulated, capacity and cumulative waste generated with its disposal. The sub grade mineral likely to be generated and blended with ROM/ to be stacked may be dealt with. Reclamation / rehabilitation/ backfilling method to be adopted in the lease area, the area to be backfilled and RL of such area, plantation etc. for stabalisation should be given.
53	Substantial quantity of resources have been blocked beneath the crushing & screening plant , aerial rope way, whereas its exploitation proposal in conceptual plan period should be furnished
54	Reclamation and Rehabilitation details during conceptual period should be furnished.
55	Economic depth and UPL has not been determined for conceptual period, reclamation of complete mined out area has not been proposed.
56	Conceptual plan is sketchy, The ultimate pit design with no. of benches in OB and those in ore with their RL, extent with depth given are not based on geological and other statutory considerations. Ultimate pit limit has not been determined and has not been prepared as per procedures, guidelines, circulars issued by IBM from time to time.
57	The existing dump with its extent, quantity accumulated, capacity and cumulative waste generated with its disposal. The sub grade mineral likely to be generated and blended with ROM/ to be stacked may be dealt with. Reclamation / rehabilitation/ backfilling method to be adopted in the

	lease area, the area to be backfilled and RL of such area, plantation etc. for stabilisation should be given.
58	Post mining land use of area should have been furnished.
MINE DRAINAGE	
59	Workings expected to be above / below from water table in coming years have not been furnished.
60	Quantity and quality of water likely to be encountered / pumped out from pit have not been furnished.
Stocking of mineral reject/ Waste and sub-grade stock.	
61	Para 4.0 is sketchy, and has not covered the lease area, which needs modification
62	Present extent of waste dumps, ore stocks, sub grade ore stock present in the lease area with top and bottom RL, quantity and quality in respect of ore stocks may be furnished
PROGRESSIVE MINE CLOSURE PLAN	
63	Environmental protective measures so far carried out in the lease area should be detailed in tabular form for clarity.
64	Details of existing land use pattern of the lease area as per actual field condition should be furnished in page no.40.
65	Review of earlier approved progressive mine closure plan in respect of protective measures like retaining wall, garland drain, settling pond, plantation, land use pattern, monitoring station etc. should be made and submitted.
66	Mitigative measures to reduce air pollution, dust suppression, ground vibrations, noise, water furnished is general in nature and not site specific. Mitigative measures should be given in detail in quantitatively as per EIA/EMP approved by MOEF.
67	Year wise proposal during plan period and upto conceptual plan period in respect of reclamation of land, programme of afforestation, stabilization and vegetation of waste dump, measures to control ground vibration, water regime etc. should be furnished.
68	Progressive reclamation plan in para 8.3.0 is sketchy, as it is stated that final closure plan will be started after expiry of lease 2027, which cannot be acceptable. Reclamation and rehabilitation plan should be of progressive in nature and it has to be carried out regularly so that the final closure could be done at the expiry of lease period, accordingly proposal should be suitably modified.
	Page no.58 & 59, proposal of afforestation, reclamation, rehabilitation, protective measures etc. in dump management, worked out benches, backfilled area should be submitted year wise.
69	Area considered for calculation of financial assurance is on lower side, which should be recalculated and submitted.
70	Page no.66, broken up area for pit development as per approved plan was 34.578 Ha, but in the present submission the same is furnished as 19.987 Ha, which cannot be acceptable. As most of the lease area has already degraded due to mining and allied activities which needs recalculation of the area put on use and submitted as per actual field condition.
71	Bank Guarantee amount for the area put on use should be calculated at the rate of Rs. 3.0 Lakhs per Hactare and its validity should be upto proposal period of 31.03.2022.
72	Financial assurance submitted for the area put to use is having validity up to 27.12.2017 only, whereas for the proposal period of Mining Plan for the subsequent years has not been submitted.
Feasibility report	
73	Name of the person prepared the feasibility report is not given
74	The UNFC feasibility assessment report submitted not prepared as per UNFC guidelines.

	Reclamation/ rehabilitation cost, closure cost and other important parameters not taken into account. Cash flow forecast, sensitivity analysis not given. Even the economic depth of mining has not been determined.
Plans and sections	
75	Key plan should be submitted on survey of India to-po sheet no. with all the details incorporated as per the provision of MCDR, 2017
76	Cadastral map of the lease area should be submitted.
77	Shape and size of lease area as per lease sketch is not matching with shape and size furnished in Plans and sections. As the lease sketch is the base plan, the lease area depicted in plan and sections should be same as per lease sketch only.
78	Different Color code is indicated for same litho unit in Geological plans & sections, which is contradictory,
SURFACE PLAN	
79	Surface plan should be updated on quarterly basis as this being category –A fully mechanized mine as per the provision of MCD Rules 2017 and submitted.
80	Mines Manager and Mine Surveyor should put their sign in plans and sections with date. Surveyor certificate number should also be mentioned.
81	Standard symbols and colour scheme has not been used for preparation of plans and sections.
82	Forest land, Non-Forest land, diverted forest land, surface right area held etc. should be depicted in surface plan for easy reference.
Geological Plans and sections	
83	UPL should be furnished in Geological plans and sections.
83	Litho units furnished in section are not matching with lithologs of bore hole submitted, which needs correction
85	Different zone of proved , probable reserve and other resources have not been marked on plan and section based on exploration so far carried out as per UNFC norm. The lateral and depth wise extension taken for marking such zone of mineral may be detailed text part also.
86	All 3 axes of UNFC codes should be depicted in geological plans and sections.
87	Longitudinal section should have been drawn for clarity.
Year wise development plans and sections	
88	Year wise development plans and sections should be modified in view of comment at sl. No.38 & 41.
Conceptual plan	
89	Conceptual plan should be prepared as per the comment at sl. No.
Enclosure:-	
90	Copy of Authenticated lease map duly signed by state Govt. authority should be submitted.
91	Some photograph covering mining operations, waste dumping, beneficiation operation, sub-grade stocks and environment protective measures should be enclosed

General	
1	Lease period as per G.O order 15.10.20105, is expiring on 19.09.2017, but G.O. order from State government for extension of lease period for subsequent period should be submitted.
	Sy no. 674 is not part of the lease as per G.O order, but it is included in the lease which has to be excluded and authenticated map should be submitted.
	<p>G.O no.43, 25.01.2002- 18.10 Ha (19.09/2017) (surrendered- 9.96 Ha, retained 8.14 Ha) (Forest area of 1.41 Ha in retained area) G.O no.24, 11.02.2003- 34.82 Ha (20.02.2023) G.O no.292, 01.10.2003-7.45 Ha (18.11.2023)</p> <p>All the above G. O orders should be furnished.</p> <p>G.O M no.281, 15.10.2005 for amalgamation of above lease areas. (Annexure-I)</p> <p>Amalgamation of above three leases to 50.41 Ha vide proceeding no. 2672/M/2003, dated 25.05.2006 with co-terminus period as 18.09.2017 (Annexure-II)</p>
Statutory clearances EC FC CFE CFO	<p>EC, 04.03.2005, 7.45 Ha- 0.10 million tonnes (333 TPD) EC, 25.06.2003, 34.98 Ha (Forest land) - 0.6 million tonnes. FC- 21.11.2002 (mining -33.82 Ha) Mineral transport- Rope way (1200 TPD)</p> <p>CTE- 11.03.2002.</p>
The purpose of document, review of miningplan/ modification to approved mining plan etc.	The document should have been submitted as modification to the approved mining plan under rule

	17(3) of M(OHEM)Rules 2016 instead of Review of mining plan. Accordingly the same should be modified in letter, certificates, plates and in relevant part of the document.
	Sub rule and rule of M(OHEAM)C Rules 2016 under which the document submitted should be furnished.
	Proposed Plan period should be furnished as 2017-18 (from 20.09.2017 to 31.03.2018) to 2021-22.
	Lease area is situated in sy. no. 673,675,676 & 689/2-16 of Mandadi block-II reserve forest, Mandadi village, of Veldurty (M), in sy. no. 656/11-B8 in Polepalli Village in Durgi Mandal and in sy. no. 875(P) of Mandadi village, of Veldurty (M) of Guntur district of Andhra Pradesh. The above details should be incorporated in cover page.
	The details of lease area situated as per content at sl. No.3 should be incorporated in consent letter.
	The new MC&D Rules had been notified in March 2017 whereas in certificate furnished by qualified person is for observance of MCDR,1988 in the document. The qualified person should be updated and prepare the document in compliance of the new MCDR, 2017.
	The details of expiry of lease period is furnished as 18.09.2017, but in annexure-I the same is furnished as 19.09.2017, which are contradictory.
	The person signed the document has not been nominated by the board of directors of the company. Only the person authorised should be signed the document and submitted
	Introductory chapter should be incorporated, in which clearly spell out the mining history, company details, its captive plants, future plans if any may be given. Also specifying various statutory clearances like, EC, FC, CTO, Consent To Establish etc. in respect of the total lease area ,may be given with documentary evidence.
	There are contradictory statements like amalgamation of four leases instead of three leases, etc.
	Expiry of lease period has to be furnished as per the G.O orders only.
	The details in the document should be furnished as per the format of “ IBM manual for appraisal of mining plan 2014” only. Owner of the lease is furnished in page no.4, which is not required as per the format.
	Latitude & Longitude of all the ML pillars should be furnished in introduction chapter and the same should be pasted in Surface plan.
	CCOM circular regarding geo reference cadastral map of the lease area should be implemented.
	Documentary proof in respect of permanent and present address of the person should be enclosed.
	Valid photo identity proof and address proof (present & permanent) of the person signing the document should be submitted.
	Validity period of previously approved documents should be furnished in tabular form for easy reference.
Review of approved modified mining plan	
	Review of earlier approved proposal should be furnished in to-to with reasons for deviations if any, for easy reference.
	Review should carried out for the last review period only, i.e. 2017-18 should be furnished as up to 19.09.2017 only.
	Some colour photograph covering mining operations including quarries, waste dumps, sub-grade

	stocks, haul road, processing plant, protective measures like retaining wall, check dam and garland drain, settling pond etc. and other area details are not enclosed.
	Geology
	Page no.15, expenditure incurred in respect of exploration carried so far should also be furnished in addition to the details furnished.
	Bore holes/ trenches carried out earlier in the lease area should be given in tabular form incorporating year of exploration, no. of bore holes/ trenches, max. depth drilled, total meterage, remarks etc. And submitted meaningfully in the text.
	Conceptual plan
	Life of the mine based on rate of exploitation should be furnished in page no.32
	Area broken up for pit development is submitted different at different para of the document, refer page no.33 (21.985 Ha), 66 (19.987 Ha)etc., which should be reconciled and submitted.
	Economic depth and UPL has not been determined for conceptual period, reclamation of complete mined out area has not been proposed.
	Conceptual plan is sketchy, The ultimate pit design with no. of benches in OB and those in ore with their RL, extent with depth given are not based on geological and other statutory considerations. Ultimate pit limit has not been determined and has not been prepared as per procedures, guidelines, circulars issued by IBM from time to time.
	The existing dump with its extent, quantity accumulated, capacity and cumulative waste generated with its disposal. The sub grade mineral likely to be generated and blended with ROM/ to be stacked may be dealt with. Reclamation / rehabilitation/ backfilling method to be adopted in the lease area, the area to be backfilled and RL of such area, plantation etc. for stabalisation should be given.
	Post mining land use of area should have been furnished.
	MINING
	Status of present mining of the lease area should be given, incorporating details no. of benches in ore and waste with their height and width etc. may be given in para 5.1.1.
	Layout of mine workings has not been described.
	Bore holes drilled in the lease area has not been depicted in development sections for clarity.

MINE DRAINAGE	
	Workings expected to be above / below from water table in coming years have not been given.
	Quantity and quality of water likely to be encountered / pumped out from pit have not been given.
Disposal of Waste and sub-grade stock.	
	Present extent of waste dumps, ore stocks, sub grade ore stock present in the lease area with top and bottom RL, quantity and quality in respect of ore stocks may be furnished
	Para4.0 should be detailed and submitted
	Use of mineral
PROGRESSIVE MINE CLOSURE PLAN	
	Environmental protective measures so far carried out in the lease area should be detailed quantitatively for clarity.
	Details of land schedule of the lease area should be furnished in para 1.0
	Review of earlier approved proposals of progressive mine closure plan in respect of protective measures like retaining wall, garland drain, settling pond, plantation, land use pattern etc. should be made and submitted.
	Mitigative measures to reduce air pollution, dust suppression, ground vibrations, noise, water is given general in nature and not site specific. Mitigative measures should be given in detail in quantitatively as per EIA/EMP approved by MOEF. Compliance of EIA/EMP also incorporated.
	Year wise proposal during scheme period and upto conceptual plan period in respect of reclamation of land,programme of afforestation, stabilization and vegetation of waste dump,measures to control ground vibration, water regime etc. may be given.
	Area considered for calculation of financial assurance is on lower side, which should be recalculated and submitted.
	Bank Gaurantee amount for the proposal period at the rate of Rs. 3.0 Lakhs valid for proposal period should be submitted with supporting document.
	Financial assurance submitted for the area put to use is having validity up to 27.12.2017 only, whereas for the proposal period of Mining Plan for the subsequent years has not been submitted.
Feasibility report	
	Name of the person prepared the feasibility report is not given
	The UNFC feasibility assessment report submitted not prepared as per UNFC guidelines. Reclamation/ rehabilitation cost, closure cost and other important parameters not taken into account. Cash flow forecast, sensitivity analysis not given. Even the economic depth of mining has not been determined.
Plans and sections	
	Key plan should be submitted on survey of India to-po sheet no. with all the details incorporated as per the provision of MCDR, 2017
	Cadastral map of the lease area should be submitted.
	Shape and size of lease area as per lease sketch is not matching with shape and size furnished in Plans and sections. As the lease sketch is the base plan, the lease area depicted in plan and sections should be same as per lease sketch only.
	Different Color code is indicated for same litho unit in Geological plans & sections, which is contradictory,

SURFACE PLAN	
	Surface plan should be updated on quarterly basis as this is category –A fully mechanized mine as per the provision of MCD Rules 2017 and submitted.
	Mines Manager and Mine Surveyor should sign plans and sections with their seal and date. Surveyor certificate number should also be mentioned.
	Standard symbols and colour scheme has not been used for preparation of plans and sections.
	Forest land, Non-Forest land, diverted forest land, surface right area held etc..should be depicted in surface plan.
Geological sections	
	Litho units furnished in section are not matching with lithologs of bore hole submitted, which needs correction
	Different zone of proved , probable reserve and other resources have not been marked on plan and section based on exploration so far carried out as per UNFC norm. The lateral and depth wise extension taken for marking such zone of mineral may be detailed text part also.
	All 3 axes of UNFC codes should be depicted in geological plans and sections.
	Longitudinal section should have been drawn for clarity.
Conceptual plan	
	Outline for consecutive five years period upto 20 years have not been incorporated in conceptual mining plan
	Enclosure:-
	Copy of Authenticated lease map duly signed by state Govt. authority should be submitted.
	Some photograph covering mining operations, waste dumping, beneficiation operation, sub-grade stocks and environment protective measures should be enclosed
	Lease plan submitted is not legible.
	FEASIBILITY REPORT submitted is not being prepared as per UNFC guidelines.
Compliance of conditions of vide this office letter no. MS/OTF-MECH/56-ORI/BHU/2010-11 dated 24.01.2011, should be incorporated in introduction chapter.	
	CCOM circular no. 2/2010 regarding geo-reference cadastral map of lease area to be implemented.
	Copy of EIA/EMP approved by MOEF should be submitted.
	Annexure-16, 17 & 18 submitted is not legible

DESCREPIENCIES OBSERVED AFTER SUBMISSION OF FINAL FIVE COPIES IN RESPECT OF SCHEME OF MINING OF ORAGHAT IRON & MANGANESE MINES OF SHRI SYED ABDUL HALEEM OVER 25.847 HA IN SUNDARGARHDISTRICT OF ODISHA

1. Compliance to Scrutiny no.5 has not been carried out. ML pillar-A has not been posted as observed during field inspection, which is a starting point of lease area, then how the remaining pillars have been posted, which needs explanation.

2. There is a mismatch in respect of forest and non-forest area as per lease deed and stated in cover page. COVER PAGE SHOULD show forest area of 19.967 Ha and forest area of 5.888 Ha as per lease deed. Compliance to scrutiny no. 8 to be recheck.
3. Page 14, status of compliance in respect of violation pointed out by this office letter dated should be incorporate.
4. Area considered on Eastern side of village road is mineralized zone,basis of reserve estimation has not been detailed in text.
5. Compliance to Scrutiny no.24 has not been carried out.
6. Compliance to Scrutiny no.27 has not been carried out, reserves categorized under 121 have been considered under proved category, which cannot be acceptable.
7. In draft copy reserves have been estimated having more than 45% Fe and has asked to re-estimate in resources, whereas in final submission, reserves estimated are not brought under any grade
8. Section 7 & 8 should be re-check, occurrence of ore body is considered on western side of lease area, where as as per bore holes on western side the bore holes are negative. Reserves should be re-estimate.
9. Section 1, volume of waste considered is 30% of total excavation, which is too high and not matching with actual litho units shown, should be justified.
- 10.