

To

**The Divisional Forest Officer,
Bonai.**

Sub: Proposal for diversion of 86.479 ha forest land for construction of overhead conveyor belt from Barsuan Railway Siding to Kurmitar Iron Ore Mines of M/s OMC Ltd. (Proposal No.FP/OR /Others/ 44967/2020, dated 19.06.2020)

Ref: Memo No.7523/6F-(Mg.) dt 31.08.2020 by DFO, Bonai.

Sir,

The point wise compliance to the observation raised during examination of the application pertaining to diversion of forest land proposed for construction of overhead conveyor belt from Kurmitar Iron Ore Mines of OMC to Barsuan New Railway siding is given as under for kind consideration:

1. Observation No.1: The “purpose wise Breakup of the total land” required for the project as given at Page No. 22 of DP does not match with the “proposed item wise utilization of forest land” given at page No. 24 of DP.

In compliance, it is submitted that the purpose wise breakup of the total land as mentioned at Page No. 22 (Revised Page No.21) of the DP shows both forest (86.479 ha) as well as non-forest land (0.127 ha) involved in the project area of 86.606 ha (86.479 + 0.127). Whereas the table at Page No.24 (Revised Page No.22 & 23) of the DP shows the item wise breakup of the total forest area (86.479 ha) proposed for diversion (85.175 ha) and re-diversion (1.304 ha). In both the tables as mentioned above, the involvement of total forest land remains same i.e. 86.479 ha and item wise utilization of forest land is also made same in the revised Part-I enclosed to the DP duly signed by the Authorized Signatory of OMC.

2. Observation No.2: The figures as shown vide Annexure-XXI i.e. the “statement showing details of forest and non-forest area proposed for diversion” do not tally with the figures given under details of RF area and PRF area.

In compliance, it is submitted that the statement showing details of forest and non-forest area proposed for diversion at Annexure-XXI have been revised so that the figures mentioned under details of RF and PRF area remained same. The copy of the revised **Annexure-XXI** duly signed by all concern is replaced (Page No-153 of the DP) herewith for consideration.

3. Observation No.3: The purpose wise utilization of forest area given at page 24/DP should also include No. of pillars to be constructed both in forest & non-forest area along the conveyor corridor to support the conveyor Pipe. It should also include the inspection Path/Road.

In compliance, it is submitted that the number of pillars to be constructed in both forest and non-forest area all along the corridor to support the conveyor pipe has been included in the purpose wise utilization of

The Odisha Mining Corporation Ltd.

(A Gold Category State PSU)

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CIN: U131000R1956SGC000313

forest area given at Page No.24 of the DP (Revised Page No.22 & 23). Further the area proposed for inspection path along the corridor has been included in the same table placed at Page No.24 (Revised Page No.22 & 23). The trestle points and the inspection path have been shown in the **Plate No-VI** enclosed to the DP.

4.Observation No.4: As a safety hazards, there should be provision for Green Belt on both sides along the length of the conveyor corridor to act as a protective (noise & dust) barrier.

In compliance, it is submitted that on either side of the overhead conveyor corridor of 15 mtr width there will be a natural vegetation barrier to absorb the noise. Moreover, the spread of dust will be negligible during transportation of iron ore through pipe conveyor. Adequate measures shall also be taken to minimize the generation of noise by utilizing latest technology. An undertaking to this effect is enclosed at **Sl.No.1 of Annexure-I.**

5.Observation No.5: Design of the pipe conveyor should be furnished.

In compliance, it is submitted that the detail design is being prepared by an UK based consultancy Agency to bring out the latest technology in the field of pipe conveyor transport mode. However, a note on the design of the pipe conveyor is given at **Annexure-II** for kind perusal. The sketch map showing the cross section & plan of a trestle pillar and the position of the Crane during construction phase is submitted herewith as **Annexure-III** for clarity.

6. Observation No.8: As stated at page 22/DP, the above proposal also includes 1.993 ha of forest land in respect of Rantha ML of OMC. This area seems to be proposed for diversion towards the conveyor corridor of the instant proposal vide proposal No.FP/OR/MIN/33970/2018, dtd. 28.01.2018. If it is so, how the same area of 1.993 ha has been again proposed for diversion as fresh area in respect of the instant diversion proposal which may be clarified.

In compliance, it is submitted that both the proposals of Rantha ML (268.84 ha) and Conveyor Corridor (86.606 ha) of OMC was submitted online for the first time. In the land use break up of Rantha ML (Proposal No.FP/OR/MIN/33970/2018, dt 28.01.2018), 1.993 ha of forest land has been proposed under the land use of "**Proposed Conveyor Corridor passing through ML**". Since the proposal is under compliance this may kindly be read as "**Proposed Conveyor Corridor considered in the Proposal No. FP/OR/Others/44967/2020 dt.19.06.2020**".

7. Observation No.10: As stated in the forwarding letter under Tree enumeration, 7447 nos. of trees above 30 cm girth have been enumerated over the applied forest area of 86.479 ha and all the enumerated trees may be required to be felled due to the above project. The barest minimum no. of trees which will be actually required to be felled should be furnished.

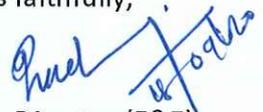
In compliance, it is submitted that the conveyor corridor has been planned in such a manner that minimum forest area is used. Therefore the total 7447 nos of trees of above 30 cm girth shall be required to be felled. However, the entire process of tree felling shall be done under the direct supervision of the State Forest Department. An undertaking by OMC is enclosed at **Sl.No.2 of Annexure-I.**

Inclusion of inspection path and trestle points as per the observation in the pattern of utilization of land has resulted in change in item wise land use pattern. Hence, necessary changes have been made in the online application as well as in the Part-I of the proposal.

Therefore, it is requested to kindly process the application for diversion of 86.479 ha of forest land pertaining to conveyor corridor proposal from Kurmitar Iron Ore Mines of OMC to Barsuan Railway siding for evacuation of mineral from Kurmitar mines.

Encl: as above.

Yours faithfully,



Executive Director (F&E)

Memo No...../OMC/F&E/2020

dt 18.09.2020

Copy forwarded to Director (PP) for kind information and necessary action.

Copy forwarded to Regional Manager, Koira for kind information. He is requested to pursue the matter with DFO, Bonai for onward recommendation of the proposal.



Executive Director (F&E)



Annexure-I

UNDERTAKINGS

I Dr. (Mrs.) Tilottama Basa, Additional General Manager (Geology), Authorised signatory of M/s Odisha Mining Corporation Limited do hereby undertake the following in compliance to the observation raised by DFO, Bonai while examining the proposal for diversion of 86.479 ha of forest land pertaining to overhead conveyor corridor from Kurmitar ML boundary to Barsuan proposed Railway siding of OMC Ltd in Sundargarh district of Odisha:

1. To implement latest Technology to minimize generation of dust and noise during transportation of ore by Pipe conveyor which itself is the latest mode of transportation recommended by NEERI, Nagpur.
2. To initiate proposal of tree felling whenever it is felt absolutely necessary for execution of the project under the direct supervision of the Divisional Forest Officer, Bonai and on getting approval it will be executed following the guidelines.

[Dr. (Mrs) Tilottama Basa]
Addl. General Manager (Geology)
Authorised Signatory
The Odisha Mining Corporation Limited

T. Basa
Addl. General Manager (Geo)
Power of Attorney Holder
Odisha Mining Corporation Ltd.
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CIN: U131000R1956SGC000313

DESIGN OF PIPE CONVEYOR BELT

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C.S.
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2/11

~~1/11~~
MIPRath
for KIOMPL

Pipe Conveyor

General Description of Pipe Conveyor

A pipe conveyor is a rubberized belt, which formed from a conventional troughed shape into a pipe, or tubular shape. Pipe Conveyors are the most competitive option over conventional Trough Belt conveyors, which eliminate constraints like training, scattering, spillage of material, etc. Due to its tubular shape, the conveyor is able to manage horizontal and vertical curves as well as high inclinations. At the loading point pipe conveyor is open, like a conventional troughed conveyor. After the feed point, conveyor formed into a pipe shape, for the full transport length, with material completely enclosed. At the discharge end, piped belt again opens out, allowing material to be discharged overhead pulley in conventional manner.

Pipe conveyors are an environmental friendly solution for conveying bulk material with zero spillage with the ability to cover terrain difficult to negotiate by conventional conveyors.

Due to the ease of operation in difficult terrains and less environmental footprint, two pipe conveyors have been envisaged for the transportation of CLO and Fines from PA to DA 1 and DA 1 to DA 2.]

The lift and length of the conveyor route proposed by KIAMPL is given in table 1 below:

Table 1 Lift PC1 & PC2 route proposed by KIAMPL

Conveyor	Lift
From PA to DA1 (PC1)	Approx. (-) 69 m
From DA1 to DA2 (PC 2)	Approx. (-) 383.1 m

The proposed route gives advantage in terms of following:

1. Less Forest diversion area and hence less tree cutting and lesser forest degradation
2. Better approachability resulting in safe construction
3. Better maintainability as major part will be easily approachable

Sizing

Sizing/Designing of pipe conveyor depends on various design parameters, conditions and mandatory requirements such as design basis for system, general site conditions, capacity requirements, design requirements, safety requirements, instrumentation requirements, etc. Hence, following are the few listed parameters considered by KIAMPL as inputs for designing the pipe conveyor system.

Design Basis

a) Bulk Material Properties

Properties	Value
Bulk Material	Crushed Iron Ore
Bulk Density	2200 Kg/m3
Moisture Content	6-10%

Handwritten notes and signatures at the bottom of the page:

- Handwritten "C.S." with a diagonal line through it.
- Handwritten "Mx sel."
- Handwritten signature "M P Rathi" and "to KIAMPL" with a circular stamp.

Lump Size	Fines (-10 mm) & CLO (-40+10 mm)
Surcharge Angle	20°
Angle of Repose	30°

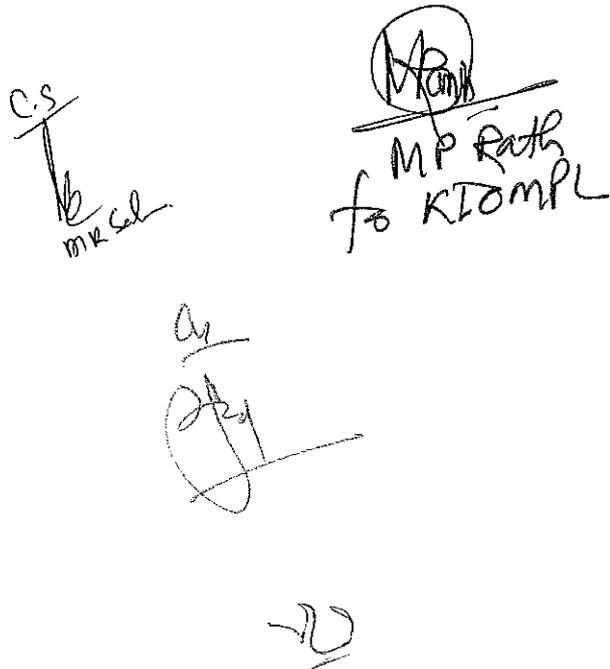
b) Climatic conditions –

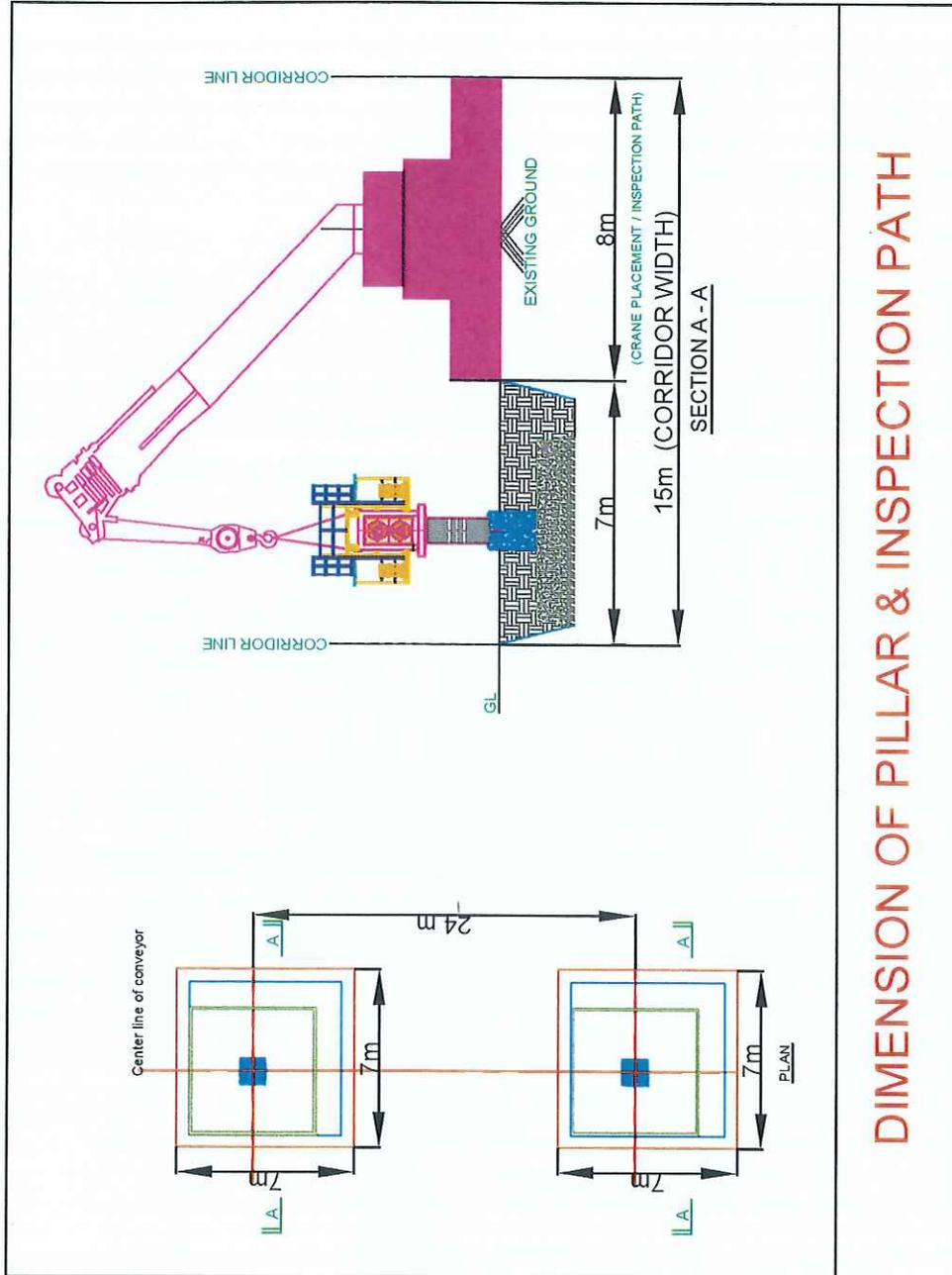
Maximum Temperature	50°
Minimum Temperature	0°
Average Temperature	20°

c) Power Supply and Distribution –

Distribution Voltage	33 kV AC
Low Voltage (Motors & Drives)	690 V/660V/433V AC
Frequency	50 Hz
Control Voltage	24 V DC

Above design is based on dynamic analysis, based on topological survey and contouring. During actual execution, design parameters might vary depending on topography, soil, site, local conditions. However, the construction would be executed within the approved boundaries of the corridor.





DIMENSION OF PILLAR & INSPECTION PATH

R

T. Basa
T. Basa
 Addl. General Manager (Geo)
 Power of Attorney Holder
 Odisha Mining Corporation Ltd.
 Bhubaneswar

PLAN SHOWING PROPOSED PIPE CONVEYOR WITH INSPECTION PATH & TRESTLE PILLARS.



KHANDADHAR PRF

DISPATCH AREA 2

TOHRA RF

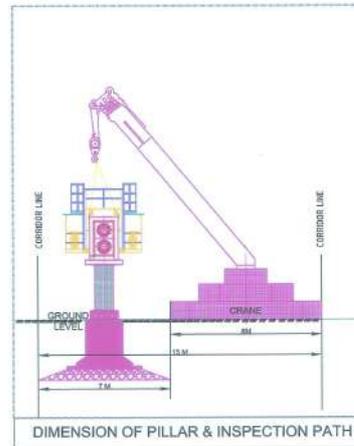
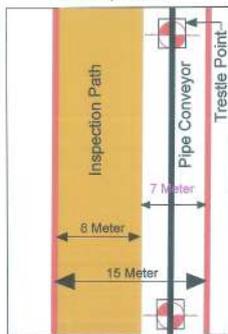
KHANDADHAR PRF

NON FOREST

SAMPLE PHOTOGRAPH OF PIPE CONVEYOR



SCALE; 1:1000



DIMENSION OF PILLAR & INSPECTION PATH

KHANDADHAR RF

KHANDADHAR PRF

DISPATCH AREA 1

KHANDADHAR PRF

KHANDADHAR RF

PIPE CONVEYOR-1

RANTHA IRON ORE MINES

KURMITAR IRON ORE MINES

LEGEND

- TRESTLE POINT
- KURMITAR ML BOUNDARY
- RANTHA ML BOUNDARY
- CONVEYOR CORRIDOR
- INSPECTION PATH
- KHANDADHAR PRF
- KHANDADHAR RF
- TOHRA RF
- NON-FOREST AREA
- INFRASTRUCTURE AREA 11.912 HA. (STAGE-II APPROVED)

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 T. Basa
 Advt. General Manager (Legal)
 Power of Attorney holder
 Odisha Mining Corporation
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