

Bhatadi Expansion OC Mine

Background

The existing Bhatadi Expansion OC (1.465 Mty) is located in Bhatadi OC block in Chandrapur District of Maharashtra State which is north-western continuity of Durgapur-Padmapur block. Another geological block namely Bhatadi NW block is located in further north-west of Bhatadi OC block. There is scope for expansion of existing OC mine in adjacent Bhatadi NW block and accordingly this Mining Plan has been prepared for the Bhatadi Expansion OC mine in the combined block for enhanced target capacity of 2.0 Mty.

The project has Environment clearance for 1.465 MTPA coal production granted by MoEF&CC vide ref no.J-11015/151/2014-IA.II (M) on 13.3.2020 within Mine Lease area of 847.37 ha.

Geological Reports of Bhatadi Block were submitted in July'1983 and Dec'1984. PR was prepared in March'1988 and approved by WCL Board in Dec'1988. Mine started in the year 1995. Subsequently, expansion of mine was done by preparing geological reports and Project reports.

Location

The area under consideration is located about 15 km from Chandrapur Township. It is located in close proximity to the Chandrapur (15 km), Tadali (8 km) and Bhandak (15 km) railway stations. Bhatadi (NW) block forms the north-western continuity of existing Bhatadi (OC) and Durgapur - Padmapur blocks of Wardha Valley coalfield, District: Chandrapur, Maharashtra. The Latitudes of the area is from N 20°03'50" to 20°05'36" and Longitudes of the area is from E 79°15'21" to 79°16'40". The area is covered in the Survey of India Toposheet No. 55 P/4 and P/8.

Rationale for proposed expansion

- i) The existing Bhatadi Expansion OC mine is a cost plus project and coal is being supplied to MAHAGENCO as per existing cost plus agreement to supply 0.975 Mty coal. MAHAGENCO is installing a pipe conveyor for transportation of coal from Bhatadi Expansion OC mine to pithead Chandrapur Thermal Power

Station and there is requirement of 2.00 to 2.50 Mty coal for the proposed pipe conveyor. Accordingly, it is proposed to augment the production from Bhatadi Expansion OC mine from existing capacity of 0.975 Mty to 2.00 Mty. There is another block (Bhatadi NW Block) adjacent to Bhatadi OC block and therefore expansion of the existing mine in N-W side is feasible. Moreover, the approved PR for Bhatadi Expansion OC was planned upto 150m depth at an average stripping ratio of 5.29 m³/t. However, coal in Bhatadi OC block is available upto about 200 m depth and therefore sufficient coal reserves are available for expansion of proposed mine.

- ii) The balance life of the nearby Padmapur Extension Deep OC (2.50 Mty capacity) is about 5-6 years. The enhanced production from the proposed Bhatadi Expansion OC (2.0 Mty) will meet the part of the deficit of coal supply caused by exhaustion of Padmapur Extension Deep OC in near future. Thus, the preparation of RPR of Bhatadi Expansion OC for 2.0 Mty is justified.

Geo-Mining parameters

The geo-mining parameters of the proposed Bhatadi Expansion OC mine are as follows:-

Sl. No.	Particulars	Quarry-I	Quarry-II	Total
1	Area of the Quarry			
a)	On floor (Ha.)	207.05	93.35	300.40
b)	On surface (Ha.)	368.87	141.76	510.63
2	Depth (m)			
a)	Initial	33	18	18
b)	Final	220	200	220
3	Average gradient of Seam	1 in 4.5 to 1 in 6	1 in 4 to 1 in 5.5	1 in 4 to 1 in 6
4	Average thickness of seam (m)	14.0 to 19.0		
5	Average Strike length (m)	2800	1250	4050
6	Width on surface (m) (Dip Rise)	1150	1000	1150

7	Width on floor (m) (Dip Rise)	740	800	800
8	GCV (k Cal/ kg) (Overall)	4657 (G-9) – as per GR G-10 – as per declared grade		
9	Balance Mineable reserves (Mt) as on 01.4.2019	27.91	17.62	45.53
10	Total OB including Access Trench (Mm ³) as on 01.4.2019	265.47	129.52	394.99
11	Average S.R. m ³ /t.	9.51	7.35	8.68

The net geological reserves available within the quarry works out to 58.87 Mt (71.12 Mt – 12.25 Mt). Considering 5% mining losses, the mineable reserves in proposed quarry area works out to **55.93 Mt**. The coal production in existing Bhatadi OC/ Bhatadi Expansion OC started in the year 1996-97. About 10.40 Mt coal reserves have already been extracted from the proposed quarry area upto 31.03.2019. Thus net mineable reserves available in the proposed Bhatadi Expansion OC (2.0 Mty) mine as on 01.04.2019 works out to **45.53 Mt** (55.93 Mt – 10.40 Mt).

Land Requirement

The tentative break up of type of land proposed to be acquired for Bhatadi Expansion OC (2.0 Mty) mine is as follows :

Type of Land

Sl. No.	Particulars	Land already acquired (ha)	Additional land (ha)	Total Land (ha)
A)	Within Mine Boundary			
1)	Tenancy land	785.69	560.59	1346.28
2)	Government land	52.25	5.02	57.27
3)	Forest land	0.00	0.20	0.20
	Sub Total	837.94	565.81	1403.75
B)	Outside Mine Boundary (For village rehabilitation)			

4	Tenancy/Govt. Land	-	20.00	20.00
	TOTAL (A+B)	837.94	585.81	1423.75

Project Report Approval

The project report of Bhatadi Expansion OC having production capacity of 2.00 MTPA within ML area of 1423.75 ha has been accorded approved by CIL Board in its 399th meeting held on 11th Feb, 2020. It was communicated vide letter no CIL: XI(D):04112:2020:24819 dated 25.02.2020. Total capital investment proposed is 729.86 Crores (including WDV of Rs 149.25 Crore).