

APPLICATION (FORM-I)

FOR

ENVIRONMENTAL CLEARANCE

FOR

Amalgamated Inder-Kamptee Deep OC Mine NAGPUR AREA, WCL

Targeted production capacity (1.20 + 2.0) 3.20 MTPA
within the ML area of 857.60 Ha



APRIL - 2019

Prepared by: -
CENTRAL MINE PLANNING & DESIGN INSTITUTE
LIMITED

CMPDI / Form – I / WCL / 2019 – 20 / April/89/ 01

Certificate of accreditation vide no. NABET/EIA/1720/ RA 0092 valid till 01.10.2020

Amalgamated Inder-Kamptee Deep OC Mine

(AS PER EIA NOTIFICATION, 2006)

APPENDIX I
(See paragraph-6)
FORM - I

• **Basic Information**

SN.	Item	Details
1	Name of the project/s.	Amalgamated Inder-Kamptee Deep OC mine, Nagpur Area, WCL
2	S.No. in the schedule.	1(a) (i) Mining of Minerals
3	Proposed capacity/area/length/tonnage to be handled/command area/lease area/number of wells to be drilled.	3.20 MTPA within ML area of 857.60 ha
4	New/Expansion/Modernization.	Expansion
5	Existing Capacity/Area etc.	<u>Inder UG to OC Expansion Mining Project</u> Capacity- 1.20 MTPA Area- 463.80 ha <u>Expansion of Kamptee Deep OC coal mine project</u> Capacity- 1.50 MTPA (Normative), 2.0 MTPA (Peak) Area- 667.65 ha
6	Category of Project i.e. 'A' or 'B'.	'A'
7	Does it attract the general condition? If yes, please specify.	No, since it is a Category "A" project
8	Does it attract the specific condition? If yes, please specify.	No, since it is a Category "A" project
9	Location	Tekdi Village
	Plot/Survey/Khasra No.	Latitudes : N 21°13'50.5" to N 21°16'34.1" Longitudes : E 79°11'52.9" to E 79°14'24.8" Toposheet : 55 O/3 and 55 O/4 of Survey of India
	Village	Tekdi Village
	Tehsil	Parseoni
	District	Nagpur
	State	Maharashtra
10	Nearest railway station/airport along with distance in kms.	Nearest Railway station is Kanhan Railway station at about 5 km and nearest airport is Nagpur airport at about 30 km.
11	Nearest Town, City, District Headquarters along with distance in kms.	Town –Parseoni, District – Nagpur, Distance – 30 km (Approx.)
12	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given).	Tekdi Village, Tehsil – Parseoni, Dt. Nagpur, Maharashtra State
13	Name of the applicant.	General Manager (Environment) Western Coalfields Limited (HQ) Coal Estate, Civil Lines, Nagpur – 440 001
14	Registered Address	Western Coalfields Limited, Coal Estate, Civil Lines, Nagpur – 440001
15	Address for correspondence:	
	Name	Shri Kaushik Chakraborty
	Designation (Owner/Partner/CEO)	General Manager (Environment)

	Address	Western Coalfields Limited (HQ) Coal Estate, Civil Lines, Nagpur – 440 001.
	Pin Code	440 001
	E-mail	gmenvironment.wcl@coalindia.in
	Telephone No.	0712 – 2510151
	Fax No.	0712 – 2510151
16	Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.	Village – District – State Not applicable
17	Interlinked Projects.	NIL
18	Whether separate application of interlinked project has been submitted?	No
19	If yes, date of submission.	Not Applicable
20	If no, reason.	Not Applicable
21	Whether the proposal involves approval/clearance under: if yes, details of the same and their status to be given. a) The Forest (Conservation) Act, 1980? b) The Wildlife (Protection) Act, 1972? c) The C.R.Z. Notification, 1991?	a) There is no Forest land is involved b) There is no National Park, Wild life Sanctuary, Bio – Sphere reserve within 10 km of the project under consideration and as such the Wild Life (Protection) Act, 1972 is not applicable. c) There is no sea coast within 10 km of the project under consideration as such the C.R.Z. Notification 1991 is not applicable.
22	Whether there is any Government Order/Policy relevant/relating to the site?	No
23	Forest land involved (hectares).	Nil
24	Whether there is any litigation pending against the project and/or land in which the project is propose to be set up? a) Name of the Court b) Case No. c) Orders/directions of the Court, if any and its relevance with the proposed project.	No

(I) Activity

1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data																									
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	Yes	<p>Inder UG to OC Expansion mine and Kamptee Deep OC mine are adjacent on-going projects of Nagpur Area.</p> <p><u>Inder UG to OC Expansion Mining Project</u> (EC secured from MoEF&CC vide letter dated 06.02.2013) Capacity- 1.20 MTPA, Area- 463.80 ha.</p> <p><u>Expansion of Kamptee Deep OC coal mine project</u> (EC secured from MoEF&CC vide letter dated 11.05.2015) Capacity- 1.50 MTPA (Normative), 2.0 MTPA (Peak), Area- 667.65 ha.</p> <p>In order to rationalize the resources, Amalgamated Inder-Kamptee deep OC mine (targeted production capacity (1.20 + 2.0) 3.20 MTPA within the ML area of 857.60 Ha) is proposed. The amalgamated Inder-Kamptee Deep OC mine has reduced the total land requirement from 1110.06 (459.57+650.49) ha to 857.60 ha</p> <p><u>Inder UG to OC Expansion Mine</u> The existing EC of Inder UG to OC Expansion has a sanctioned land area of 463.80 ha. Out of this the existing land in Inder UG to OC Expansion mine including Land to be transferred from Gondegaon-Ghatrohan OC mine is as follows:</p> <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Particulars</th> <th>Area (Ha)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Land already acquired by Inder UG</td> <td>63.95</td> </tr> <tr> <td>2</td> <td>Land transferred from Gondegaon OC</td> <td>108.00 (46.27 + 61.73)</td> </tr> <tr> <td>3</td> <td>Land Acquired Through Direct Purchase</td> <td>41.47</td> </tr> <tr> <td></td> <td>Total Land Available</td> <td>213.42</td> </tr> <tr> <td>4</td> <td>Land to be transferred from Gondegaon-Ghatrohan OC</td> <td>54.34</td> </tr> <tr> <td></td> <td>Total existing Land</td> <td>267.76</td> </tr> </tbody> </table> <p><u>Expansion of Kamptee Deep OC coal mine project</u> The existing EC of Kamptee Deep OC has a sanctioned area of 667.65 ha. Out of the sanctioned land, Kamptee Deep OC mine has 299.03 ha land in physical possession.</p> <p>As indicated in the previous paragraphs, the existing land in Inder UG to OC Expansion mine and Kamptee Deep OC mine are 267.76 ha and 299.03 ha respectively.</p> <p>Total land involved in Amalgamated Inder – Kamptee Deep OC mine is 857.60 ha. Total existing land in these two mines is (267.76+299.03) 566.79 ha and balance 290.81 ha land (857.60 ha - 566.79 ha) is proposed to be acquired under the Amalgamated Project.</p> <p>Out of 290.81 ha land proposed for acquisition, 280.96 ha is tenancy land and 9.85 ha is government land. The acquisition of this additional land is one of the most critical activities for development of this mine The break-up of land requirement is summarized below:</p> <table border="1"> <thead> <tr> <th>Type of</th> <th>Existing Land (ha)</th> <th>Additional</th> <th>Total</th> </tr> </thead> </table>	Sl. No.	Particulars	Area (Ha)	1	Land already acquired by Inder UG	63.95	2	Land transferred from Gondegaon OC	108.00 (46.27 + 61.73)	3	Land Acquired Through Direct Purchase	41.47		Total Land Available	213.42	4	Land to be transferred from Gondegaon-Ghatrohan OC	54.34		Total existing Land	267.76	Type of	Existing Land (ha)	Additional	Total
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Land	Inder UG to OC Expn.	Land to be transferred from Gondegaon-Ghatrohan OC	Kamptee Deep OC	Total	land (ha)	Land (ha)
Tenancy land	213.42	54.34	299.03	566.79	280.96	857.60
Govt. land					9.85	
Forest land	-	-	-	-	-	-
TOTAL	213.42	54.34	299.03		290.81	857.60

On grant of environmental clearance to Amalgamated Inder-Kamptee OC, the 54.34 ha land will be reduce from the existing EC of Gondegaon OC. According an application for amendment in EC will be made for Gondegaon OC.

The during Mining Land use pattern is placed below: -
Land Use Details

Sl. No.	Particulars	Area (ha)
1.	Entire Quarry Area	378.98
2.	External OB dump	260.56
3.	Infrastructure	40.00
4.	Embankment	28.00
5.	Colony	20.00
6.	Road	12.00
7.	Area needed for rationalization and blasting zone	118.06
	Total Land	857.60

1.2	Clearance of existing land, vegetation and buildings?	Yes	<p>In order to rationalize the resources, Amalgamated Inder-Kamptee deep OC mine (targeted production capacity (1.20 + 2.0) 3.20 MTPA within the ML area of 857.60 Ha) is proposed.</p> <p>Environmental Clearance was granted to Inder UG to OC Expansion coal mining project for expansion in production capacity of 0.60 MTY to 1.20 MTY in ML area of 463.80 Ha. vide letter no. J-11015/35/2010-IA-II(M) on dated 06.02.2013</p> <p>Environmental Clearance was granted to Expansion of Kamptee deep coal mine project for production capacity of 1.5 MTY (Normative) to 2.0 (Peak) in ML area of 667.65 Ha vide letter no. J-11015/287/2010-IA-II(M) on dated 11.05.2015.</p> <p>The amalgamated Inder-Kamptee Deep OC mine has reduced the total land requirement from 1110.06 (459.57+650.49) ha to 857.60 ha.</p> <p>There is no forest land involved.</p> <p>The detailed change in land use is provided above in S. No. 1.1.</p>
1.3	Creation of new land uses?	Yes	<p>New land use is created as opencast mining activities are carried out. The detailed change in land use is provided above in S. No. 1.1.</p>
1.4	Pre-construction investigations e.g. bore holes, soil testing?	Yes	<p>The necessary exploratory boreholes had been drilled to assess the coal reserves in the block.</p>
1.5	Construction Work	Yes	<p>Construction of service building/Manager's office, residential buildings, road & culverts, water supply and sewerage etc. has been carried out.</p>
1.6	Demolition works?	Yes	<ul style="list-style-type: none"> Demolition of temporary construction. Demolition of infrastructure will be carried out at the time of Mine Closure.
1.7	Temporary sites used for construction works or housing of	Yes	<p>Initially temporary structures is made essentially to meet the enabling needs of Construction manpower & machinery deployed.</p>

	construction workers?		
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	<p>The proposed Amalgamated Inder-Kamptee Deep OC mine has been prepared by amalgamating entire quarry area of Inder Expansion OC mine and part quarry area of Kamptee Deep OC mine. Moreover, the barrier between the two mines has also been included in the quarry area of Amalgamated Inder-Kamptee Deep OC mine.</p> <ul style="list-style-type: none"> • Excavation – 220.76 ha <p>Due to this reason, the quarry floor area of Amalgamated Inder-Kamptee Deep OC mine has been reduced from 174.05 ha (89.35 + to 84.70) to 151.40 ha. Similarly, quarry surface area has reduced from 335.00 ha (178.05 + 156.95) to 220.76 ha.</p> <ul style="list-style-type: none"> • External OB Dump – 101.33 Mm3 (Excluding temporary top Soil dump) in an area of 260.56 ha <p>Amalgamating entire Inder UG to OC Expansion mine (all workable seams) and part area of Kamptee Deep OC mine (upto floor of Seam-IVB) including barrier between the two mines as single quarry & also by utilizing the eastern side excluded quarry area of Kamptee Deep OC mine for OB dumping, thus reducing the total land requirement for OB dumping.</p> <ul style="list-style-type: none"> • Internal OB Dump - Quantity of 80.60 Mm3 in an area of 119 Ha <p>Part quarry area in eastern side of existing Kamptee Deep OC Mine has been proposed for internal OB dumping in Amalgamated Inder Kamptee Deep OC Mine.</p>
1.9	Underground works including mining or tunneling?	No	----

1.10	Reclamation works?	Yes	<p>In order to optimum utilization of resources, Amalgamated Inder-Kamptee deep OC mine (targeted production capacity (1.20 + 2.0) 3.20 MTPA within the ML area of 857.60 Ha) is proposed. The proposed Amalgamated Inder-Kamptee Deep OC mine has been prepared by amalgamating entire quarry area of Inder Expansion OC mine and part quarry area of Kamptee Deep OC mine</p> <ul style="list-style-type: none"> The total volume of OB in the proposed Amalgamated Inder-Kamptee Deep OC mine as on 01.04.2018 works out to 181.93 Mm³ (including 2.50 Mm³ OB for trench cutting at Dump site and 3.0 Mm³ OB rehandling in quarry). Due to steep gradient, very meagre quantity (6.82 Mm³ upto ground level and 4.70 Mm³ OB by merging of internal dump with rise side external dump) can be accommodated inside the quarry. However, 64.44 Mm³ OB is proposed to be backfilled in void of existing Kamptee deep OC including void of old Kamptee OC. Rest entire 101.33 Mm³ (181.93 – 6.82 - 4.70 – 69.08) OB is required to be dumped in External OB Dump (100.83 Mm³) and Embankment (0.50 Mm³). It is proposed to merge the internal dump in quarry with the rise side external dump in the proposed Amalgamated Inder-Kamptee Deep OC mine. Additional 4.70 Mm³ OB can be accommodated due to this merging of internal and external dumps. Due to non-availability of additional non coal bearing area in the vicinity of mine, it is proposed to dump 13.49 Mm³ top soil OB on coal bearing area in the dip side of the quarry leaving safe distance from the dip side quarry boundary. It is proposed in this report to re-handle this entire 13.49 Mm³ OB from 6th year to 9th year and to dump this OB on proposed external dump. Although the proposed mine area is above HFL of Kanhan river, an embankment of 30m top width and 5m above ground level has been proposed in dip side of quarry for safety of the mine and to serve as barrier between mine and surrounding area. About 0.50 Mm³ OB is proposed to be dumped for construction of embankment against Kanhan River. Total OB in the proposed Amalgamated Inder-Kamptee Deep OC mine is 181.93 Mm³ (176.43 Mm³ OB from quarry, 2.50 Mm³ OB from trench cutting, 3.0 Mm³ OB rehandling) which will be accommodated in the following External and Internal OB Dumps :- <table border="1" data-bbox="603 1330 1477 1982"> <thead> <tr> <th>Sl. No.</th> <th>OB Dump</th> <th>Location</th> <th>Dump Height (m)</th> <th>Capacity (Mm³) (Solid)</th> </tr> </thead> <tbody> <tr> <td colspan="5">1. EXTERNAL OB DUMP</td> </tr> <tr> <td>1.1</td> <td>External Dump</td> <td>Rise side of Quarry on non- coal bearing area</td> <td>90m</td> <td>100.83</td> </tr> <tr> <td>1.2</td> <td>Embankment</td> <td>Along Kanhan river</td> <td>5m above GL</td> <td>0.50</td> </tr> <tr> <td>1.3</td> <td>Temporary Top Soil Dump</td> <td>Dip side of Quarry on coal bearing area (to be reclaimed)</td> <td>30 m</td> <td>13.49</td> </tr> <tr> <td colspan="4">Total External Dump (Excluding Temp. Top Soil Dump)</td> <td>101.33</td> </tr> <tr> <td colspan="5">2. INTERNAL DUMP</td> </tr> <tr> <td rowspan="2">2.1</td> <td rowspan="2">In the void of Quarry</td> <td>Decoaled Void of Quarry (Eastern side)</td> <td>Below Ground</td> <td>6.82</td> </tr> <tr> <td>Merging with external dump</td> <td>Above Ground</td> <td>4.70</td> </tr> <tr> <td colspan="4">Sub Total</td> <td>11.52</td> </tr> </tbody> </table>	Sl. No.	OB Dump	Location	Dump Height (m)	Capacity (Mm ³) (Solid)	1. EXTERNAL OB DUMP					1.1	External Dump	Rise side of Quarry on non- coal bearing area	90m	100.83	1.2	Embankment	Along Kanhan river	5m above GL	0.50	1.3	Temporary Top Soil Dump	Dip side of Quarry on coal bearing area (to be reclaimed)	30 m	13.49	Total External Dump (Excluding Temp. Top Soil Dump)				101.33	2. INTERNAL DUMP					2.1	In the void of Quarry	Decoaled Void of Quarry (Eastern side)	Below Ground	6.82	Merging with external dump	Above Ground	4.70	Sub Total				11.52
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				Decoaled Void of existing Kamptee Deep OC Mine	Below Ground	31.38
					Above Ground	37.70
				Sub Total		69.08
				Total Internal Dump		80.60
				TOTAL DUMP CAPACITY (INTERNAL + EXTERNAL)		181.93

The External Dump of height 90 m and additional capacity 100.83 Mm³ has been proposed in the rise side of quarry on non Coal Bearing area leaving 100m distance from edge of quarry surface. The 90m height will be made of 30 m dump tier keeping berm of 6 m at 15 m, 45m and 75m height and berm of 30 m at 30 m and 60m height. The overall slope of dump with this pattern will be about 24.5° for OB dump. However, scientific study has been proposed for safe design of external dump.

From above, it is clear that total internal dumping in proposed Amalgamated Inder-Kamptee deep OC mine is 80.60 Mm³ which is **44.30** % of total OB. The quantity of internal OB dumping is limited due to steep gradient of the coal seams.

Post-mining Land use pattern of ML/Project Area (ha)

Sl.No	Land use during mining	Land use (ha)				
		Plantation	Water Body	Public use	Undisturbed	Total
1	External OB Dump	260.56	0.00	0.00	0.00	260.56
2	Top soil dump	0.00	0.00	0.00	0.00	0.00
3	Excavation	119.0	259.98	0.00	0.00	378.98
4	Area around building & Infrastructures	7.00	0.00	53.0	0.00	60.00
5	Embankment	28.00	0.00	0.00	0.00	28.00
6	Undisturbed Area	42.00	0.00	0.00	88.06	130.06
	Total	456.56	259.98	53.0	88.06	857.60

The area of 456.56 ha will be reclaimed with plantation from the total area of 857.60 ha.

1.11	Dredging?	No	--
1.12	Offshore structures?	No	--
1.13	Production and manufacturing processes?	Yes	Production of Coal- by Opencast method through Shovel Dumper Combination method.
1.14	Facilities for storage of goods or materials?	Yes	<ul style="list-style-type: none"> Coal produced from the mine shall be stored on surface at designated coal stock yard duly provided with fire fighting & dust suppression system. The goods & materials shall be stored in designated store.

			<ul style="list-style-type: none"> Explosives shall be stored in magazine (3te) as approved by Controller of Explosives.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	<p><u>Solid Waste</u> – Solid waste is mainly overburden generated from the excavation work. The dumping of overburden is envisaged with the view of minimizing external dumping.</p> <p><u>Liquid Effluent</u> –</p> <ul style="list-style-type: none"> Mine Pumped Out Water –Sedimentation tank of adequate capacity has been provided. Effluent treatment plant has been provided for treatment of liquid waste generated from workshop.
1.16	Facilities for long term housing of operational workers?	Yes	<p>As per approved RPR of amalgamated Inder-Kamptee deep OC mine Manpower of 549 nos will be deployed.</p> <p>Remarks: Optimizing the manpower requirement to make the project economically viable. Any surplus manpower due to amalgamation of the two mines will be gainfully utilized in other mines of Nagpur Area.</p>
1.17	New road, rail or sea traffic during construction or operation?	Yes	Approach/ coal transportation road of 8.5 km length, culverts, Excavation workshop, substation etc. are envisaged in the RPR of amalgamated Inder- Kamptee deep OC mine. No rail or sea traffic is envisaged
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	Yes	As given in S. No. 1.17
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	Yes	As given in S. No. 1.17
1.20	New or diverted transmission lines or pipelines?	Yes	<ul style="list-style-type: none"> 33 kV, Single feeder line of length 8 km from 220 kV/132kV/ 33 kV /11 kV Tarsa, Kanhan MSEDCL Substation, to a suitable location near access trench of Inder OC Mine, where a 33kV/6.6kV substation is proposed to be install. Diversion of 11 kV HT Overhead Line falling within Mine boundary of 6 km length
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	Yes	A nallah flowing in the mine boundary is proposed to be diverted. However, for nallah diversion due permission/NOC from the concerned state/central authorities is proposed to be obtained.
1.22	Stream crossings?	yes	Nallah
1.23	Abstraction or transfers of water from ground or surface waters?	Yes	<ul style="list-style-type: none"> Ground Water – Due to excavation strata seepage water will get accumulated at the floor of the coal seam in the sump having capacity to deal with peak rainfall. In order to maintain the working faces dry for coal production this water will be pumped out daily. As envisaged in project report, initial demand of water for the mine use will be met by ground water collected by boreholes. Surface Water – No abstraction from surface water course, treated mine water and sub-soil water will be used for Industrial and Domestic use.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	Yes	As given in S. No. 1.23

1.25	Transport of personnel or materials for construction, operation or de-commissioning?	Yes	Personnel as well as official vehicles are being used for transportation of mining personnel. Store and construction material are being transported by trucks.
1.26	Long-term dismantling or decommissioning or restoration works?	No	As per approved mine closure plan.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	Not envisaged at present.
1.28	Influx of people to an area in either temporarily or permanently?	Yes	Temporary Influx
1.29	Introduction of alien species?	No	---
1.30	Loss of native species or genetic diversity?	No	---
1.31	Any other actions?	No	

2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

S.No.	Information/checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	Yes	Total land involved in Amalgamated Inder – Kamptee Deep OC mine is 857.60 ha. Total existing land in these two mines is (267.76+299.03) 566.79 ha. Balance 290.81 ha land (857.60 ha - 566.79 ha) is proposed to be acquired under the Amalgamated Project. Out of 290.81 ha land proposed for acquisition, 280.96 ha is tenancy land and 9.85 ha is government land.
2.2	Water (expected source & competing users) unit: KLD	Yes	Source – Mine Pumped out Water, & sub-soil water Industrial Demand - 460 KLD. Residential water demand – 832 KLD
2.3	Minerals (MT)	Coal	In order to optimum utilization of resources, Amalgamated Inder-Kamptee deep OC mine (targeted production capacity (1.20 + 2.0) 3.20 MTPA within the ML area of 857.60 Ha) is proposed. The proposed Amalgamated Inder-Kamptee Deep OC mine has been prepared by amalgamating entire quarry area of Inder Expansion OC mine and part quarry area of Kamptee Deep OC mine Minalbe Reserves remaining in Inder UG to OC expansion mining Project as on 1.04.2018: 21.70 MT Minalbe Reserves remaining in Kamptee Deep OC coal mine project as on 1.04.2018: 22.666 MT Minalbe reserves in Amalgamated Inder-Kamptee deep

			<p>OC mine: 41.27 Mt (21.70 Inder Block + 9.55 barrier (Kamptee Colliery block) + 10.02 Kamptee colliery block) as on 01.04.2018</p> <p>Total reduction in mineable reserves in proposed amalgamated Inder-Kamptee Deep OC mine as on 01.04.2018 is only 3.096 Mt (44.366-41.27) (21.70 Mt of Inder UG to OC Expansion mine + 22.666 Mt in Kamptee Deep OC mine)</p> <p>41.27 Mt in proposed amalgamated Inder Kamptee Deep OC) as the reserves excluded in Kamptee Deep OC mine is more or less compensated by the reserves of barrier between the two mines.</p> <p>However, this amalgamation will not only ensure better quality of coal due to exclusion of depillared and stowed area of Kamptee Deep OC mine, but the excluded area will be utilized for dumping purpose thereby reducing the total land requirement.</p> <p>Out of 22.67 Mt balance reserves as on 01.04.2018 in existing Kamptee Deep OC mine, 10.02 Mt reserves have been considered in proposed RPR of Amalgamated Inder-Kamptee Deep OC. Rest 12.65 Mt reserves are not considered in this amalgamated RPR. Out of these 12.65 Mt reserves, 8.58 Mt reserves are blocked in Eastern part of Kamptee Deep OC and 4.07 Mt reserves are below the seam-IVB in western part of existing Kamptee Deep OC considered in this RPR. 8.58 Mt reserves blocked in Eastern part of Kamptee Deep OC may be extracted by rehandling of OB. 4.07 Mt reserves in bottom seams below the seam-IVB in western part of existing Kamptee Deep OC may be extracted in future by deepening the proposed quarry as no backfilling has been proposed in this area.</p>
2.4	Construction material – stone, aggregates, sand / expected source – (MT)	Yes	It is required for construction of infrastructures etc as detailed in sanctioned PR.
2.5	Forests and timber (source – MT)	Yes	It is required for construction of infrastructures etc as detailed in sanctioned Project Report.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	<ul style="list-style-type: none"> • Electricity – <p>Source – MSEDCL</p> <p>Consumption – 4.25 kWh/t</p>
2.7	Any other natural resources (use appropriate standard units)	No	----

3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

S.No	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	Yes	Used oils and old batteries will be auctioned to authorized re-processors. Sludge from ETP will be transported to authorized recycler.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	--
3.3	Affect the welfare of people e.g. by changing living conditions?	No	---
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	---
3.5	Any other causes	No	---

4. Production of solid wastes during construction or operation or decommissioning (MT/month)

S.No	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	Yes	In order to optimum utilization of resources, Amalgamated Inder-Kamptee deep OC mine (targeted production capacity (1.20 + 2.0) 3.20 MTPA within the ML area of 857.60 Ha) is proposed. Overburden mainly consist of black cotton soil. Total Quantity –181.93 Mm3 (101.33 Mm3 + 80.60 Mm3) Yearly excavation – 13.33 (max) Mm3.
4.2	Municipal waste (domestic and or commercial wastes)	Yes	Used as manure
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	<ul style="list-style-type: none"> ETP Sludge – Secured Land Fill in TSDF Used Oil –Through approved Recyclers.
4.4	Other industrial process wastes	No	---

4.5	Surplus product	No	---
4.6	Sewage sludge or other sludge from effluent treatment.	Yes	Sludge from effluent Treatment – Will be disposed as per Consent Conditions.
4.7	Construction or demolition wastes	Yes	<ul style="list-style-type: none"> • During construction wastes: - Insignificant • Demolition :- Not envisaged at Present
4.8	Redundant machinery or equipment	Yes	<ul style="list-style-type: none"> • By auction through authorized agencies.
4.9	Contaminated soils or other materials	Yes	<ul style="list-style-type: none"> • Through biological reclamation by growing trees (Native Species).
4.10	Agricultural wastes	No	---
4.11	Other solid wastes	No	---

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

S.No	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data.
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	<ul style="list-style-type: none"> • Operation of Heavy Earth Moving Machines (HEMMs). • The quantum of gases viz. SO₂, NO₂ and CO in ambient environment is being measured through ambient air quality monitoring in the mine activity area every fortnight as per Environment Protection Amendment Rule, 2000;
5.2	Emissions from production processes	Yes	<ul style="list-style-type: none"> • Dust particles including coal dust. • The quantum of Dust (PM₁₀ & PM_{2.5}) in the ambient environment is being measured through ambient air quality monitoring in the mine activity area every fortnight as per Environment Protection Amendment Rule, 2000.
5.3	Emissions from materials handling including storage or transport	Yes	<ul style="list-style-type: none"> • Dust particles including coal dust. • The quantum of Dust (PM₁₀ & PM_{2.5}) in the ambient environment is being measured through ambient air quality monitoring in the mine activity area every fortnight as per Environment Protection Amendment

			Rule, 2000.
5.4	Emissions from construction activities including plant and equipment	Yes	Insignificant
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	No	---
5.6	Emissions from incineration of waste	No	---
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	----
5.8	Emissions from any other sources	No	---

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

S.No	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	<ul style="list-style-type: none"> Generation of Noise and Vibration will be due to the following operations. <ol style="list-style-type: none"> Operation of HEMMs / Machineries. Blasting Operations The quantum of noise in ambient environment will be measured through ambient noise quality monitoring in the mine activity area every fortnight as per Environment Protection Amendment Rule, 2000.
6.2	From industrial or similar processes	No	
6.3	From construction or demolition	Yes	Insignificant
6.4	From blasting or piling	Yes	<ul style="list-style-type: none"> Blasting will be carried out as per permission from DGMS and will be maintained within the permissible limits specified by DGMS.
6.5	From construction or operational traffic	Yes	Construction: Insignificant Operational – through movement of coal transportation trucks and dumpers. Noise level will be monitored and will be continued every fortnight as per Environment Protection Amendment Rule, 2000.
6.6	From lighting or cooling systems	No	---
6.7	From any other sources	No	---

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

S.No	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data

7.1	From handling, storage, use or spillage of hazardous materials	Yes	Used Oil – will be disposed off through approved Recyclers and same will be continued.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	Yes	<u>Mine Pumped Out Water –</u> Excess Treated mine pumped out water is proposed to be discharged into local nullah. Quality parameters is monitored and will be continued every fortnight. <u>Workshop Effluent –</u> Effluent will be treated in Effluent Treatment Plant with Zero Discharge. Quality parameters will be monitored and will be continued every fortnight.
7.3	By deposition of pollutants emitted to air into the land or into water	Yes	Fugitive emission into air from OB dumps, transportation roads. Quantum of fugitive emission in ambient environment is monitored and will be continued every quarter.
7.4	From any other sources	No	---
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	---

8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

S.No	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	Yes	Explosives are used for blasting as permitted by DGMS. Safety from Fire: No person shall deposit heated material or ashes on any opencast working. No person shall light a fire or permit a fire to be lighted in any OC working except by the permission in writing of the Manager and only for a special purpose specified therein. No coal shall be left exposed in coal benches more than its incubation period to avoid fire in seam due to spontaneous heating. Proper type of the extinguisher should be kept in each HEMM ready for use in case of emergency. In coal stock, coal shall be dispatched on the basis of first in first out.
8.2	From any other causes	Yes	Due to – <ul style="list-style-type: none"> • Land Sliding in OB Dump and mine Pit • Blasting - All operations will be carried out as per

			statute.
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	No	----

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

9.1	Lead to development of supporting Facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: <ul style="list-style-type: none"> • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • housing development • extractive industries • supply industries • other 	Yes	The project will lead to development of housing, roads, ancillary industries, Improvement in social & living standards by providing opportunities of direct & indirect employment to local community
9.2	Lead to after-use of the site, which could have an impact on the environment	Yes	The degraded land is proposed to be biologically reclaimed which will improve the green cover in the area.
9.3	Set a precedent for later developments	Yes	Activities detailed out in previous paragraph above do culminate in conjunction with local setup has set precedence of economic development leading to over all socio-economic growth of the area.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	Yes	Operating opencast coal mines. Coal occurs in layers and continues for large distance. Associated mining activity with such closely located centers along with other related service sector could have a cumulative impact.

III) Environmental Sensitivity

S.No	Areas	Name/ Identity	Aerial distance (within 10 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	---
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Yes	A nallah flowing in the mine boundary is proposed to be diverted. However, for nallah diversion due permission/NOC from the concerned state/central authorities is proposed to be obtained.

3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	No	---
4	Inland, coastal, marine or underground waters	No	---
5	State, National boundaries	No	----
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	----
7	Defence installations	No	---
8	Densely populated or built-up area	Yes	Gondegaon Village, WCL Colony and hutments are located within the core zone.
9	Areas occupied by sensitive man-made land uses (<i>hospitals, schools, places of worship, community facilities</i>)	Yes	Area township & nearby villages.
10	Areas containing important, high quality or scarce resources (<i>ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals</i>)	Yes	Ground water – Yes Surface water- Nallah. Forestry - Nil Agricultural – Yes Fisheries – Yes limited to Nallah Minerals – Coal.
11	Areas already subjected to pollution or environmental damage. (<i>those where existing legal environmental standards are exceeded</i>)	No	---
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (<i>earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions</i>)	No	---

I hereby given undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance give, if any to the project will be revoked at our risk and cost.

Date: _____

Place: _____

Signature of the applicant
With Name and Full Address
(Project Proponent / Authorized Signatory)
