

BHARAT COKING COAL LIMITED
(A Subsidiary of Coal India Limited)
FORM- I FOR CLUSTER V OF BCCL MINES

Sl. No.	Name of Mines	Production Capacity (MTY)		Lease Hold Area (Ha)	Life (Years)
		Normative	Peak		
1	Nichitpur OC Mine	1.00	1.3	150.00	11
2	Tetulmari Colliery (Consisting of open cast and underground mine)	1.31	1.70	317.00	10
3	Mudidih Colliery (Consisting of open cast and underground mine)	2.22	2.88	378.05	>30
4	SendraBansjora OC Mine	1.80	2.34	249.63	14
5	Kankanee OC Mine	0.92	1.19	201.08	07
6	Bansdeopur OC Mine	0.40	0.52	104.72	03
7	Loyabad UG Mine (closed for coal production)	0	0	499.56	-
	Cluster V	4.854	6.311	1900.04	



September, 2017
Prepared by CMPDI, Regional Institute-II
Koyla Bhawan, Dhanbad.

(I) Basic Information

FORM 1

S.No.	Item	Details																																																										
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3	Proposed capacity/area/length/tonnage to be handled/command area/lease area/number of wells to be drilled	Total Production : From Mines :6.311MTPA (Peak); Lease Hold Area : 1900.04 Ha																																																										
4	New/Expansion/Modernization	Proposal is for Amendment of Prior EC granted for the Cluster-V vide letter no – J-11015/01/2011-I(A).II(M) dated 11th Feb, 2013 for a peak capacity of 6.311 MTPA in combined cluster ML Area of 1957.08 Ha.																																																										
5	Existing capacity/Area etc.	<table border="1"> <thead> <tr> <th rowspan="2">Sl. No.</th> <th rowspan="2">Name of the Mine</th> <th colspan="4">As per Existing EC</th> </tr> <tr> <th>Normative Production Capacity (MTY)</th> <th>Peak Production Capacity (MTY)</th> <th>Lease Area (Ha)</th> <th>Mine Life (Years)</th> </tr> </thead> <tbody> <tr><td>1</td><td>Nichitpur OC Mine</td><td>0.6</td><td>0.78</td><td>.150</td><td>10</td></tr> <tr><td>2</td><td>Tetulmari Colliery (consisting of open cast and underground mine)</td><td>0.795</td><td>1.033</td><td>317</td><td>>30</td></tr> <tr><td>3</td><td>Mudidih Colliery(consisting of open cast and underground mine)</td><td>1.553</td><td>2.019</td><td>378.05</td><td>>30</td></tr> <tr><td>4</td><td>SendraBansjora OC Mine</td><td>0.75</td><td>0.975</td><td>249.63</td><td>23</td></tr> <tr><td>5</td><td>Kankanee OC Mine</td><td>0.48</td><td>0.624</td><td>258.12</td><td>>30</td></tr> <tr><td>6</td><td>Bansdeopur OC Mine</td><td>0.676</td><td>0.879</td><td>104.72</td><td>>30</td></tr> <tr><td>7</td><td>Loyabad UG Mine (closed for coal production)</td><td>0</td><td>0</td><td>499.56</td><td>–</td></tr> <tr><td colspan="2">Total</td><td>4.854</td><td>6.31</td><td>1957.08</td><td>33</td></tr> </tbody> </table>	Sl. No.	Name of the Mine	As per Existing EC				Normative Production Capacity (MTY)	Peak Production Capacity (MTY)	Lease Area (Ha)	Mine Life (Years)	1	Nichitpur OC Mine	0.6	0.78	.150	10	2	Tetulmari Colliery (consisting of open cast and underground mine)	0.795	1.033	317	>30	3	Mudidih Colliery(consisting of open cast and underground mine)	1.553	2.019	378.05	>30	4	SendraBansjora OC Mine	0.75	0.975	249.63	23	5	Kankanee OC Mine	0.48	0.624	258.12	>30	6	Bansdeopur OC Mine	0.676	0.879	104.72	>30	7	Loyabad UG Mine (closed for coal production)	0	0	499.56	–	Total		4.854	6.31	1957.08	33
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S.No.	Item	Details			
6	Category of Projects i.e., 'A' or 'B'	'A' (more than 50 ha)			
7	Does it attract the general condition? If yes, please specify.	NO			
8	Does it attract the specific condition? If yes, please specify.	NO			
9	Location	Sl No.	Name of the Mine	Latitude	Longitude
		1	Tetulmari OC Mine	23°47'55" to 23°48'30" N	86°20'20" to 86°21'04" E
		2	Tetulmari UG Mine		
		3	Mudidih OC Mine	23°47'00" to 23°48'00" N	86°20'40" to 86°22'00" E
		4	Mudidih UG Mine		
		5	Nichitpur OC Mine	23°47'30" to 23°48'30" N	86°20'40" to 86°22'00" E
		6	SendraBansjora OC Mine	23°47'15" to 23°47'45" N	86°20'50" to 86°22'15" E
		7	SendraBansjora UG		
		8	Bansdeopur OC Mine	23°43'30" to 23°47'15" N	86°21'45" to 86°22'45" E
		9	Bansdeopur UG Mine		
		10	Loyabad UG Mine	23°46'00" to 23°47'30" N	86°20'00" to 86°21'30" E
		11	Kankanee OC Mine	23°46'30" to 23°47'30" N	86°20'30" to 86°21'30" E
		12	Kankanee UG Mine		
	Plot/Survey/Khasra No.	Tetulumuri, No. 271, Mudidih, No. 272, Jogta, No. 273, Bhadrachak, No. 280, Kankanee, No. 71, Loyabad, No. 72, Pandekanali, No.80, Sialgudri, No. 81, Chirudih, No. 83, Ekra, No. 66, Bansdeopur, No. 64, Bansjora, No. 69, Sendra, No. 70, Gareria, No. 67, Chandore, No. 269, Pandedih, No. 270, Nagrikalan, No. 230, Bawakala, No. 228, Mohalidih, No. 229, Nchitpur, No. 68			
	Village	Tetulumuri, Mudidih, Jogta, Bhadrachak, Kankanee, Loyabad, Pandekanali, No.80, Sialgudri, Chirudih, Ekra, Bansdeopur, Bansjora, Sendra, Gareria, Chandore, Pandedih, Nagrikalan, Bawakala, Mohalidih, Nchitpur,			
	Tehsil	Baghmara, Dhanbad			
	District	Dhanbad			
	State	Jharkhand			
10	Nearest railway station/airport along with distance in kms.	Tetulumuri Railway Station 3 Km. Dhanbad Station 13 Km.			
11	Nearest Town, city, District Headquarters along with dis-	Dhanbad (12kms), Jharia: (11 km)			

S.No.	Item	Details
	tance in kms.	
12	Village Panchayats, ZillaParishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given)	Tetulumuri, Mudidih, Jogta, Bhadrachak, Kankanee, Loyabad,
13	Name of the applicant	Sri. Prakash Chandra
14	Registered Address	General Manager, Sijua Area, P.O. -Sijua, Dist. Dhanbad
15	Address for correspondence:	General Manager, Sijua Area, P.O. S-ijua, Dist. Dhanbad
	Name	Sri. Prakash Chandra
	Designation (Owner/Partner/CEO)	General Manager
	Address	General Manager, Sijua Area, P.O. Sijua, Dist. Dhanbad
	Pin Code	828121
	E-mail	gmsijua.bcccl@coalindia.in
	Telephone No.	0326-2372204
	Fax No.	0326-2372204
16	Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.	Not required as coal mining is site specific
17	Interlinked Projects	NO
18	Whether separate application of interlinked project has been submitted?	Not required
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?	NO
22	Whether there is any Government Order/Policy relevant/relating to the site?	NO
23	Forest land involved (hectares)	NO
24	Whether there is any litigation pending against the project and/or land in which the project is proposed to be set	NO

S.No.	Item	Details
	up? (a) Name of the Court (b) Case No. (c) Orders/directions of the Court, if any and its relevance with the proposed project.	

(II) 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.)

Sl.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>Total leasehold area of the cluster is 1900.04 Hectares. The detailed breakup is as shown below:</p> <table border="1"> <thead> <tr> <th></th> <th>Type of land use</th> <th>Present mining land use (in Ha)</th> <th>Post-mining land use (in Ha)</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1</td> <td rowspan="2">Running Quarry</td> <td>Back-filled</td> <td>97.24</td> <td>0.00</td> </tr> <tr> <td>Not Back-filled</td> <td>103.75</td> <td>24.53</td> </tr> <tr> <td rowspan="2">2</td> <td rowspan="2">Abandoned Quarry</td> <td>Back-filled</td> <td>102.61</td> <td>0.00</td> </tr> <tr> <td>Not Back-filled</td> <td>61.41</td> <td>60.00</td> </tr> <tr> <td>3</td> <td>External OB dump</td> <td>73.32</td> <td>1.98</td> </tr> <tr> <td>4</td> <td>Service building/ Mine Infrastructure</td> <td>13.13</td> <td>11.13</td> </tr> <tr> <td>5</td> <td>Coal dump</td> <td>9.25</td> <td>6.10</td> </tr> <tr> <td>6</td> <td>Road and rail</td> <td>124.03</td> <td>109.33</td> </tr> <tr> <td>7</td> <td>Homestead Land</td> <td>271.45</td> <td>237.85</td> </tr> <tr> <td>8</td> <td>Agricultural Land</td> <td>14.00</td> <td>14.00</td> </tr> <tr> <td>9</td> <td>Forest Land</td> <td>0</td> <td>0.00</td> </tr> <tr> <td>10</td> <td>Plantation</td> <td>150.29</td> <td>1018.01</td> </tr> <tr> <td>11</td> <td>Water Body</td> <td>28.75</td> <td>56.05</td> </tr> <tr> <td>12</td> <td>Mining Area</td> <td>51.13</td> <td>0.00</td> </tr> <tr> <td>13</td> <td>Barren Land</td> <td>799.68</td> <td>361.06</td> </tr> <tr> <td></td> <td>Total</td> <td>1900.04</td> <td>1900.04</td> </tr> </tbody> </table>		Type of land use	Present mining land use (in Ha)	Post-mining land use (in Ha)	1	Running Quarry	Back-filled	97.24	0.00	Not Back-filled	103.75	24.53	2	Abandoned Quarry	Back-filled	102.61	0.00	Not Back-filled	61.41	60.00	3	External OB dump	73.32	1.98	4	Service building/ Mine Infrastructure	13.13	11.13	5	Coal dump	9.25	6.10	6	Road and rail	124.03	109.33	7	Homestead Land	271.45	237.85	8	Agricultural Land	14.00	14.00	9	Forest Land	0	0.00	10	Plantation	150.29	1018.01	11	Water Body	28.75	56.05	12	Mining Area	51.13	0.00	13	Barren Land	799.68	361.06		Total	1900.04	1900.04
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			(Source = As per details and record available at Colliery Office)
1.2	Clearance of existing land, vegetation and buildings?	Yes	<p>Vegetation There is almost no vegetation except few plants of Palash and local shrubs, which are to be cleared.</p> <p>Habitation Following structures are to be demolished</p> <p>Mudidih Colliery:</p> <ul style="list-style-type: none"> • 2 Villages to be rehabilitated • No of houses included: - 375 including unauthorized encroachments. • BCCL Quarters :- 523 including bungalows ,2 Area offices and clubs • Schools :- 6 • Church :- 1 • Post Office :- 1 • Temple - 1 <p>Nichitpur Colliery:</p> <ul style="list-style-type: none"> • 181 nos. of private unauthorized houses are proposed to be dismantled <p>SendraBansjora Colliery:</p> <ul style="list-style-type: none"> • BCCL houses to be rehabilitated: 205 nos • Private houses to be rehabilitated: 202 nos <p>Kankanee Colliery:</p> <ul style="list-style-type: none"> • There are seven sites in leasehold of Kankanee Colliery which are proposed to be rehabilitated as per Master Plan of JCF (March'08). <p>(Source = As per details and record available at Colliery Office)</p>
1.3	Creation of new land uses?	Yes	Land use will be as per details given in Point No. 1.1. (Source = As per details and record available at Colliery Office)
1.4	Pre-construction investigations e.g. bore holes, soil testing?	Yes	<p>No. of Bore Holes =87 Nos.</p> <p>Bore holes has been drilled to prove coal reserve towards assessing feasibility of mining. (Source = As per details and record available at Colliery Office)</p>
1.5	Construction works?	Yes	<p>No additional major construction work envisaged at the Colliery level, in case of any minor construction works, the materials will be taken from the local markets.</p> <p>(Source = As per the data and records available in colliery office)</p>
1.6	Demolition works?	Yes	<p>Following structures are to be demolished</p> <p>Mudidih Colliery:</p> <ul style="list-style-type: none"> • 2 Villages to be rehabilitated • No of houses included: - 375 including unauthorized encroachments. • BCCL Quarters :- 523 including bungalows ,2 Area offices and clubs • Schools :- 6 • Church :- 1 • Post Office :- 1 • Temple - 1 <p>Nichitpur Colliery:</p> <ul style="list-style-type: none"> • 181 nos. of private unauthorized houses are proposed to be dismantled <p>SendraBansjora Colliery:</p>

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1.7	Temporary sites used for construction works or housing of construction workers?	No	--
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	Excavation of Overburden and Coal About 85.7161 Mt of coal and 200.27 Mm ³ of OB will be excavated from open cast mine which will be finally reclaimed (Source = As per F.R)
1.9	Underground works including mining or tunneling?	Yes	In underground mine access of the seam already exists for extraction of coal by underground method of mining. (Source = As per the data and records available in colliery office)
1.10	Reclamation works?	Yes	Total OB dumps area will be reclaimed biologically. Development of Vegetation and green cover to improve aesthetic value will be included in proposed EMP. The subsided area will be filled and dozed. Vegetation and development of green cover will be included in proposed EMP. (Source = As per details and record available at Colliery Office)
1.11	Dredging?	No	---
1.12	Offshore structures?	No	---
1.13	Production and manufacturing processes?	Yes	In opencast mine coal will be produced using shovel - dumper combination by opencast method. Underground coal production will be done using Board & Pillar method of underground coal mining (development/ depillaring with stowing/caving) by Departmental equipment. (Source = As per details and record available at Colliery Office)
1.14	Facilities for storage of goods or materials?	Yes	Existing Regional stores and colliery stores will be utilized for storage of goods & materials. Coal will be stored in coal dumps before it is dispatched through rail/ road. Existing Explosive magazine will be used for storage of explosives. Storage will be done as per Indian Explosive Act 1884. (Source = As per details and record available at Colliery Office)
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	OB will be dumped at planned site internally and will be reclaimed biologically. Oil & Grease trap and sedimentation pond/sump is proposed for settling of suspended solids. The ground water accumulated in the mine face during working has been envisaged to be discharged into the settling tanks to arrest the suspended solids and then the same will be allowed to go into the natural course. Domestic discharge will be soaked into soak pit & septic tanks. (Source = As per details and record available at Colliery Office)

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1.16	Facilities for long term housing of operational workers?	Yes	1) Operational workers will be arranged from existing strength of the mine, which have already been provided with housing facilities at the residential colonies of the collieries (Source = As per the data and records available in colliery office)																																								
1.17	New road, rail or sea traffic during construction or operation?	No	----																																								
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	----																																								
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	----																																								
1.20	New or diverted transmission lines or pipelines?	No	----																																								
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	----																																								
1.22	Stream crossings?	No	----																																								
1.23	Abstraction or transfers of water from ground or surface waters?	Yes	<table border="1"> <thead> <tr> <th>Sl No.</th> <th>Name of the Mine</th> <th>Mine Discharge</th> <th>Water Consumption in KLD with source</th> <th>Additional Water requirement in future</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1</td> <td rowspan="2">Tetulmari OC Mine</td> <td rowspan="2">1156</td> <td>Industrial : 516(mine water)</td> <td rowspan="2">Nil</td> <td rowspan="2">Excess mine water discharged into local drainage system</td> </tr> <tr> <td>Domestic: 233</td> </tr> <tr> <td rowspan="2">2</td> <td rowspan="2">Tetulmari UG Mine</td> <td rowspan="2">1217</td> <td>Industrial :432(mine water)</td> <td rowspan="2">Nil</td> <td rowspan="2">Excess mine water discharged into local drainage system</td> </tr> <tr> <td>Domestic: 432 (mine water)</td> </tr> <tr> <td rowspan="2">3</td> <td rowspan="2">Mudidih OC Mine</td> <td rowspan="2">1470</td> <td>Industrial : 327(mine water)</td> <td rowspan="2">Nil</td> <td rowspan="2">Excess mine water discharged into local drainage system</td> </tr> <tr> <td>Domestic: Nil</td> </tr> <tr> <td rowspan="2">4</td> <td rowspan="2">Mudidih UG Mine</td> <td rowspan="2">3593</td> <td>Industrial : 718 (mine water)</td> <td rowspan="2">Nil</td> <td rowspan="2">Excess mine water discharged into local drainage system</td> </tr> <tr> <td>Domestic: 718(mine water)</td> </tr> <tr> <td>5</td> <td>Nichitpur OC Mine</td> <td>4253</td> <td>Industrial :653 (mine water)</td> <td>Nil</td> <td>Excess mine water discharged into</td> </tr> </tbody> </table>	Sl No.	Name of the Mine	Mine Discharge	Water Consumption in KLD with source	Additional Water requirement in future	Remarks	1	Tetulmari OC Mine	1156	Industrial : 516(mine water)	Nil	Excess mine water discharged into local drainage system	Domestic: 233	2	Tetulmari UG Mine	1217	Industrial :432(mine water)	Nil	Excess mine water discharged into local drainage system	Domestic: 432 (mine water)	3	Mudidih OC Mine	1470	Industrial : 327(mine water)	Nil	Excess mine water discharged into local drainage system	Domestic: Nil	4	Mudidih UG Mine	3593	Industrial : 718 (mine water)	Nil	Excess mine water discharged into local drainage system	Domestic: 718(mine water)	5	Nichitpur OC Mine	4253	Industrial :653 (mine water)	Nil	Excess mine water discharged into
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				Domestic: 1306 (mine water)	local drainage system
6	Sendra-Bansjore OC Mine	1470	Industrial : 327 (mine water)	Nil	Excess mine water discharged into local drainage system
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7	Sendra Bansjora UG	8165	Industrial : 265 (mine water)	Nil	Excess mine water discharged into local drainage system
			Domestic: 40(mine water)		
8	Bans-deopur OC (Proposed)	4374	Industrial : 437(mine water)	Nil	Excess mine water discharged into local drainage system
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9	Bans-deopur UG Mine	1960	Industrial : 196 (mine water)	Nil	Excess mine water discharged into local drainage system
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10	Loyabad UG Mine(Closed)	1620	Industrial : nil	Nil	Excess mine water discharged into local drainage system
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11	Kankanee OC Mine	3266	Industrial : 1633(mine water)	Nil	Excess mine water discharged into local drainage system
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12	Kankanee UG (Re-opening)	5786	Industrial : 33(mine water)	Nil	Excess mine water discharged into local drainage system
			Domestic: 653(mine water)		
			MADA : 100 KLD		
(Source = As per the data and records available in colliery office)					
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	----		
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes.	Transport of materials will be done through tippers, Jeep etc. Personnel are transported by the public / personal conveyance or conveyance provided by the Company. (Source = As per the data and records available in colliery office)		
1.26	Long-term dismantling or decommissioning or restoration works?	Yes	A Progressive Mines closure Plan & Final Mines Closure Plan will be prepared for the Projects.		
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	During decommissioning activities will not have any significant adverse environmental effect (Source = As per details and record available at Colliery Office)		
1.28	Influx of people to an area in either tempora-	No	Coal Mining is going on for more than 200 Years in the Jharia Coal Fields. The existing Population is largely depending on the Mining activities in the Area.		

Sl.No	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data.
	rily or permanently?		Hence no more influx of people is expected apart from the manpower required for the Project. (Source = As per details and record available at Colliery Office)
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	<p>Details of Barren and Agricultural Land are given in mine wise manner</p> <table border="1"> <thead> <tr> <th>S.No</th> <th>Name of Mine</th> <th>Agriculture land</th> <th>Barren Land</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Tetulmari</td> <td>13</td> <td>173.07</td> </tr> <tr> <td>2</td> <td>Sendra-Bansjora</td> <td>0</td> <td>93.25</td> </tr> <tr> <td>3</td> <td>Mudidih</td> <td>0</td> <td>119.05</td> </tr> <tr> <td>4</td> <td>Nichitpur</td> <td>1</td> <td>19.19</td> </tr> <tr> <td>5</td> <td>Bansdeopur</td> <td>0</td> <td>70.36</td> </tr> <tr> <td>6</td> <td>Loyabad</td> <td>0</td> <td>264.9</td> </tr> <tr> <td>7</td> <td>Kankanee</td> <td>0</td> <td>56.97</td> </tr> <tr> <td></td> <td>Total (Ha.)</td> <td>14</td> <td>796.79</td> </tr> </tbody> </table> <p>(Source = As per details and record available at Colliery Office)</p>	S.No	Name of Mine	Agriculture land	Barren Land	1	Tetulmari	13	173.07	2	Sendra-Bansjora	0	93.25	3	Mudidih	0	119.05	4	Nichitpur	1	19.19	5	Bansdeopur	0	70.36	6	Loyabad	0	264.9	7	Kankanee	0	56.97		Total (Ha.)	14	796.79
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2.2	Water (expected source & competing users) unit: KLD	Yes	<p>Details as shown below:</p> <table border="1"> <thead> <tr> <th>Sl No.</th> <th>Name of the Mine</th> <th>Mine Dis-charge</th> <th>Water Consumption in KLD with source</th> <th>Additional Water requirement in future</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1</td> <td rowspan="2">Tetul mari OC Mine</td> <td rowspan="2">1156</td> <td>Industrial : 516(mine water)</td> <td rowspan="2">Nil</td> <td rowspan="2">Excess mine water discharged into local drainage system</td> </tr> <tr> <td>Domestic: 233</td> </tr> <tr> <td rowspan="2">2</td> <td rowspan="2">Tetul mari UG Mine</td> <td rowspan="2">12172</td> <td>Industrial :432(mine water)</td> <td rowspan="2">Nil</td> <td rowspan="2">Excess mine water discharged into local drainage system</td> </tr> <tr> <td>Domestic: 432 (mine water)</td> </tr> <tr> <td>3</td> <td>Mudidih OC</td> <td>1470</td> <td>Industrial : 327(mine water)</td> <td>Nil</td> <td>Excess mine water dis-</td> </tr> </tbody> </table>	Sl No.	Name of the Mine	Mine Dis-charge	Water Consumption in KLD with source	Additional Water requirement in future	Remarks	1	Tetul mari OC Mine	1156	Industrial : 516(mine water)	Nil	Excess mine water discharged into local drainage system	Domestic: 233	2	Tetul mari UG Mine	12172	Industrial :432(mine water)	Nil	Excess mine water discharged into local drainage system	Domestic: 432 (mine water)	3	Mudidih OC	1470	Industrial : 327(mine water)	Nil	Excess mine water dis-										
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(Source = As per details and record available at Colliery Office)									
2.3	Minerals (MT)	Yes	Mineable Coal Reserve is as under:						
				SL No.	Name of the Mine	Mineable Reserve (Million Te)			

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2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	Yes	No additional major construction work envisaged at the Colliery level, in case of any minor construction works, the materials will be taken from the local markets. (Source = As per the data and records available in colliery office)																														
2.5	Forests and timber (source – MT)	Yes	Timber will be required in the form of Wooden props & Sleepers for support in UG Mines. Source will be Forest Department of different states. (Source = As per the data and records available in colliery office)																														
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	An additional Elect. Energy req: 26.96 KWH/ annum to the existing scenario will be required. Source of electrical energy is DVC. For mines: Fuel (Diesel) = 29.63 KLD (Source = As per the data and records available in colliery office)																														
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.

Sl. 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	Spent / burnt oil and oil soaked filters, old batteries. The aforesaid are being taken care of as per Hazardous Waste (Management & Handling) Rules, 2003 and sent to stores for disposal through authorized agents. (Source = As per details and record available at Colliery Office)
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?	Yes	The project has positive impact on the welfare of people. Company will spend Rs.5 per ton of coal produced previous year under CSR.
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).

Sl. 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 OCP :O.B. to be generated is as shown below: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>S.No</th> <th>Name of Mines</th> <th>Amount of OB for the rest of life of mine(in Million m3)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Tetulmari</td> <td>27.68</td> </tr> <tr> <td>2</td> <td>SendraBansjora</td> <td>51.3596</td> </tr> <tr> <td>3</td> <td>Nichitpur</td> <td>42.98</td> </tr> <tr> <td>4</td> <td>Mudidih</td> <td>33.021</td> </tr> <tr> <td>5</td> <td>Kankanee</td> <td>30.9</td> </tr> <tr> <td>6</td> <td>Bansdeopur</td> <td>5.446</td> </tr> <tr> <td colspan="2">Total OB-</td> <td>200.2526</td> </tr> </tbody> </table> (Source = Feasibility Report)	S.No	Name of Mines	Amount of OB for the rest of life of mine(in Million m3)	1	Tetulmari	27.68	2	SendraBansjora	51.3596	3	Nichitpur	42.98	4	Mudidih	33.021	5	Kankanee	30.9	6	Bansdeopur	5.446	Total OB-		200.2526
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Sl. No.	Information / Checklist confirmation	Yes / No.	Details thereof (with approximate quantities / rates, wherever possible) with source of information data.
4.2	Municipal waste (domestic and or commercial wastes).	Yes	45 tonnes per month of municipal waste. Domestic waste of houses which will be allowed to go into the soak pit & septic tanks as per township planning
4.3	Hazardous wastes (as per Hazardous Waste Management Rules).	Yes	Spent / burnt oil and oil soaked filters, old batteries. The aforesaid are being taken care of as per Hazardous Waste (Management & Handling) Rules, 2003 and sent to stores for disposal through authorized agents. (Source = As per details and record available at Colliery Office)
4.4	Other industrial process wastes	No	----
4.5	Surplus product	No	----
4.6	Sewage sludge or other sludge from effluent treatment.	Yes	It will be generated from cleaning of oil & grease trap. (Source = As per details and record available at Colliery Office)
4.7	Construction or demolition wastes	Yes	<p>Following structures are to be demolished</p> <p>Mudidih Colliery:</p> <ul style="list-style-type: none"> • 2 Villages to be rehabilitated. • No of houses included: - 375 including unauthorized encroachments. • BCCL Quarters :- 523 including bungalows ,2 Area offices and clubs • Schools :- 6 • Church :- 1 • Post Office :- 1 • Temple - 1 <p>Nichitpur Colliery:</p> <ul style="list-style-type: none"> • 181 nos. of private unauthorized houses are proposed to be dismantled <p>SendraBansjora Colliery:</p> <ul style="list-style-type: none"> • BCCL houses to be rehabilitated: 205 nos • Private houses to be rehabilitated: 202 nos <p>Kankanee Colliery:</p> <ul style="list-style-type: none"> • There are seven sites in leasehold of Kankanee Colliery which are proposed to be rehabilitated as per Master Plan of JCF (March'08). <p>Hanuman Bazar Colony will be shifted, BCCL employees will be shifted to Nichitpur Township and private persons will be shifted to Loyabad New Drift Colony as per present plan</p> <p>(Source = As per F.R)</p>
4.8	Redundant machinery or equipment	Yes	The redundant machineries or equipments will transferred to other collieries where required. If they have outlived this working life, they will be surveyed off and disposed as per Company's Rule. (Source = As per details and record available at Colliery Office)
4.9	Contaminated soils or other materials	No	----
4.10	Agricultural wastes	No	----
4.11	Other soil wastes	No	----

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

Sl. 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	<table border="1"> <thead> <tr> <th>S.No</th> <th>Name of Mines</th> <th>Amount of diesel used per day(litres)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Nichitpur</td> <td>4000</td> </tr> <tr> <td>2</td> <td>SendraBansjora</td> <td>13500</td> </tr> <tr> <td>3</td> <td>Tetulmari</td> <td>7100</td> </tr> <tr> <td>4</td> <td>Kankanee Colliery</td> <td>5000</td> </tr> <tr> <td>5</td> <td>Mudidih Colliery</td> <td>36.4</td> </tr> <tr> <td colspan="2">Total -</td> <td>29636.1</td> </tr> </tbody> </table> <p>About 29.63 KLD of diesel on an average is getting consumed. Individual transport equipment are being maintained to comply with the emission norms. As per the records of existing mines the level of pollutants are well within limit of CPCB standard (Source =As per details and record available at Colliery Office)</p>	S.No	Name of Mines	Amount of diesel used per day(litres)	1	Nichitpur	4000	2	SendraBansjora	13500	3	Tetulmari	7100	4	Kankanee Colliery	5000	5	Mudidih Colliery	36.4	Total -		29636.1
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5.2	Emissions from production processes.	Yes	Suspended Particulate Matter (SPM) is being taken care of with water sprinkling to keep the level within permissible limit. As per the records of existing mines the level of pollutants are well within limit of Central Pollution Control Board (CPCB) standard. (Source = As per details and record available at Colliery Office)																					
5.3	Emissions from materials handling including storage or transport.	Yes	SPM & RPM from CHP & Feeder breaker & coal transportation. As per the records of existing mines the level of pollutants are well within limit of CPCB standard. Care will be taken to keep the pollutant level well within the standard level. (Source = Monitoring Report)																					
5.4	Emissions from construction activities including plant and equipment.	No	There is no major construction.																					
5.5	Dust or odors from handling of materials including construction materials, sewage and waste.	Yes	Dust gets generated during transportation, loading, unloading, crushing etc of coal. Water sprinkling is done to prevent the dust from becoming air borne. (Source = As per details and record available at Colliery Office)																					
5.6	Emissions form 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:

Sl. 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	Noise / Vibration from HEMM, Feeder Breaker, CHP& surface mine fan and washery processes As per the records of existing mines the noise levels are well within permissible limit. (Source = As per details and record available at Colliery Office)
6.2	From industrial or similar processes.	No	----
6.3	From construction or demolition.	Yes	Not significant
6.4	From blasting or Drilling.	Yes	Generations will be instantaneous. Drilling and Blasting operations which will be as per the guide lines of DGMS. Noise level will be maintained within permissible limit. (Source = As per details and record available at Colliery Office)
6.5	From construction or operational traffic.	Yes	Movement of coal transporting equipments / HEMM. As per the records of existing mines the noise levels are well within permissible limit. (Source = As per details and record available at Colliery Office)
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:

Sl. No.	Information / Check-list 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	Hazardous Materials like spent oil soaked filters, old batteries are disposed of as per the existing Rules & Guidelines of Hazardous Waste (Management & Handling) Rules, 2003 and sent to stores for disposal through authorized agents. (Source = As per details and record available at Colliery Office)
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	Yes	Total Suspended Solid (TSS) in the mine water is being taken care in settling ponds and in mine sumps. There is practically no discharge as industrial discharge is being put in closed water circuit and utilized for industrial use and non-drinking purposes. Sewage is being treated in septic tank-cum-soak pits. (Source = As per details and record available at Colliery Office)
7.3	By disposition of pollutants emitted to air into the land or into water.	Yes	Release of pollutants is indicated under point No.5 the discharge will be kept within permissible limit. (Source = As per details and record available at Colliery Office)
7.4	From any other sources.	No	----
7.5	Is there a risk of long term buildup 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.

Sl. 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	Risk exists on account of storage and use of explosives and fuel. Safety precautions are taken to avoid such risks. (Source = As per the data and records available in colliery office)
8.2	From any other causes.	Yes	Open Cast Projects - Slope failure in OB dump. - Slope failure in mine pit. - Blasting operations. - Explosives Handling. - Fire dealing UG Projects 1) Inundation. 2) Fire. 3) Strata control. 4) Explosion To avoid accidents proper Risk Assessment and Management will be done as per the guide line of CMR-1957 and circulars issued by DGMS, from time to time. (Source = As per details and record available at Colliery Office)
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc.)?	Yes	The Project is falling within the seismically active Zone:- III (Source = As per details and record available at Colliery Office)

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.

Sl. No.	Information / Checklist confirmation	Yes / No.	Details thereof (with approximate quantities / rates, wherever possible) with source of information data.
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.	Yes	Economic growth associated with coal mining activity leads to semi urban like development. This supports development of ancillary and supporting industries and other related activities. (Source = As per details and record available at Colliery Office)
	Supporting infrastructure (roads, power supply, waste or waste water treatment etc.).	Yes	Housing, Roads, Power Supply, Water Supply & Water Treatment Plant and other community developments. (Source = As per details and record available at Colliery Office)
	<input type="checkbox"/> Housing development	Yes	Complete rehabilitation package stipulated by rehabilitation and resettlement policy of Coal India Ltd. And JAP, where applicable, will be provided.
	<input type="checkbox"/> Extractive industries	Yes	Ancillary & Supply Industries have developed which in turn generated employment in directly and lead to growth in income gen-

Sl. No.	Information / Checklist confirmation	Yes / No.	Details thereof (with approximate quantities / rates, wherever possible) with source of information data.
			eration.
	supply industries	Yes	do
	other		(Source = As per details and record available at Colliery Office)
9.2	Lead to after-use of the site, which could have an impact on the environment.	Yes	Some of the activity enumerated in 9.1 above could assume permanent residency with appropriate facilities. Community Development like Health Care facilities, educations facilities & Self Employment Scheme will improve the quality of life. Beyond this, physically and biologically reclaimed land would undergo transformation over time which would have positive impact on environment. (Source = As per details and record available at Colliery Office)
9.3	Set a precedent for later developments.	Yes	Activities at 9.1 & 9.2 above do culminate in conjunction with local set up and in a number of cases has set precedence of economic development leading to overall socio-economic growth of the area. (Source = As per details and record available at Colliery Office)
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects.	Yes	Coal occurs in layers continuously for long distances. Associated mining activity with numerous such closely located centers as indicated at 9.1, 9.2 and 9.3 along with other activities could have cumulative impact. (Source = As per details and record available at Colliery Office)

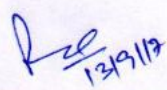
III) Environmental Sensitivity

Sl. No.	Areas	Name / Identity	Aerial distance (within 15 Km.) Proposed project location boundary.
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	Topchachi(RF) Tundi(RF) Dhangi (RF)	2.5 km approx North 8 KM North 13 KM North east (Source:Topo sheet no 73 I/6/NE)
2	Areas which are important or sensitive for ecological reasons – wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	NIL	NIL
3	Area used by protected, important or sensitive species of flora or fauna for breeding, resting, foraging, resting, over wintering, migration.	NIL	-
4	Inland, coastal, marine or underground waters.	Damodar river Ekra Jore Nagri Jore	5 km 0 km 0 km (Source:Topo sheet no 73 I/6/NE)
5	State, National boundaries.	NO	(Source:Topo sheet no 73 I/6)

Sl. No.	Areas	Name / Identity	Aerial distance (within 15 Km.) Proposed project location boundary.
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	S.E.Rly(Adra-Gomoh) Grand chord Rly Line (E.C.RLY) NH-32 NH-2	1.0K.M. 1K.M.(Northern side) 0 K.M. 6.1 KM (Source: Topo sheet no 73 I/6)
7	Defense installations	NIL	NIL
8	Densely populated or built-up area	Jharia Dhanbad	7KM(Approx) 6.3 KM (Source: Topo sheet no 73 I/6/NE)
9	Areas occupied by sensitive man-made land uses (<i>hospitals, schools, places of worship, community facilities</i>).	Hospitals, Schools, Places of warship, Community facilities exist in general in the above towns.	
10	Areas containing important, high quality or scarce resources (<i>ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals</i>).	No	-
11	Areas already subjected to pollution or environmental damage. (<i>those where existing legal environmental standards are exceeded</i>)	No	-

I hereby give 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 given, if any to the project will be revoked at our risk and cost.

Date: 13-09-17
Place Sijua


13/9/17
Sri Prakash Chandra
General Manager
Sijua Area, BCCL,
PO- Sijua, Dist. - Dhanbad
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