

**GUJARAT MINERAL DEVELOPMENT CORPORATION
LIMITED, (GMDC)**

FORM –I
(Amended as per notification 1st Dec 2009)

FOR
AMOD (G-19 EXTENSION) LIGNITE MINE
(CAPACITY 1.00 MTPA)
TALUKA: JHAGADIA,
DISTRICT: BHARUCH, GUJARAT

(Regarding Validation of Environmental Clearance
Under the provision of EIA Notification 2006 and in compliance of
MoEF&CC Notification dated 06th April 2018)



NATURAL RESOURCES AND ENVIRONMENT MANAGEMENT
CSIR-CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH)
DHANBAD-826015, JHARKHAND
(OCTOBER-2018)

FORM – I

Basic Information:

S. No.	Item	Details
1	Name of the project/s	<p>Amod Lignite Mine Project (G-19 Extn.) (Mine Lease, Area – 384.9618 Ha. & Production Capacity 1 Million Ton Per Annum (MTPA) at Vill: Amod, Tehsil Jhagadia, District Bharuch, Gujarat.</p> <p>Regarding Validation of Environmental Clearance under the provision of EIA Notification 2006 and in compliance of MoEF&CC Notification dated 06th April 2018.</p>
2	S. No. in the schedule	1A
3	Proposed capacity/area/length/tonnage to be handled/ command area/lease area number of wells to be drilled	<p>Capacity: 10,00,000 T/Annum</p> <p>Lease Area: 384.9618 Ha.</p>
4	New/Expansion/Modernization	<p>Regarding Validation of Environmental Clearance under the provision of EIA Notification 2006 and in compliance of MoEF&CC Notification dated 06th April 2018.</p> <p>Here, we humbly request EAC (Coal) – MOEFCC to exempt Public Hearing for this project based on our following justifications.</p> <ul style="list-style-type: none">• EIA study was already done for whole mine area of 378.96 Ha in 2003 for 1 MTPA lignite production and we are neither increasing the area as well as production.• Public hearing was earlier conducted on 19.10.2004 for

S. No.	Item	Details
		<p>the same area as well as same production capacity.</p> <ul style="list-style-type: none"> • EC was granted vide letter dated 14.07.2006 for whole area of 378.96 Ha for 1 MTPA lignite production. • There is no increase in mine lease area or production capacity or mining method. The mining method will also be same as considered originally while grant of existing EC i.e. through opencast mining method. There will be no requirement of blasting & no use of explosives. • The certified compliance report of EC conditions compliance received from RO, MOEFCC, Bhopal is also submitted herewith as additional file. • Further, as per Ministry's OM dated 15th September, 2017, the projects are exempted from public hearing even for expansion up to 25 % capacity as done for the following projects. e.g. Agenda 41.1 (41.1.4), 41.2 (41.2.5), 41.3 (41.3.4) etc. mentioned in MOM of

S. No.	Item	Details
		<p>41st meeting of EAC for Thermal & Coal Mining Sector held on 13-14 December, 2018. However, in our case there is no increase in production.</p> <ul style="list-style-type: none"> As per TOR conditions, we have already initiated EIA study.
5	Existing Capacity / Area etc.	1.00 Million Ton per Annum (MTPA) / 384.9618 Hectares
6	Category of Project i.e. 'A' or 'B'	A
7	Does it attract the general condition? If yes, please specify.	Yes
8	Does it attract the specific condition? If yes, please specify.	No
9	Location	<p>Amod Lignite Mining project is located at a distance of about 6 km South of village Rajpardi which is situated on the state Highway No. 64 connecting Ankleshwar as well as Bharuch to Rajpipala. The State Highway is 3.50 kms away from the mining lease area. The lignite deposit extends into villages Amod, Maljipura, Bhuri Ratanpore and Bhimpore.</p> <p>Latitude: 21°41' 55.9253" to 21°43'19.1293" N Longitude: 73°12' 45.5441" to 73°14' 21.2122" E</p>
	Plot / Survey / Khasra No.	<p>Survey of India, Toposheet No. G 46/2.</p> <p>Survey No. 168 Paiki for 258.5547 Ha. Govt. Waste Land and 126.4071 Ha. Pvt. Land with various Survey Nos. as given in PFR.</p>
	Village	Amod
	Tehsil	Jhagadia

S. No.	Item	Details
	District	Bharuch
	State	Gujarat
10	Nearest railway station/airport along with distance in kms.	Bharuch : 35 km Ankleshwar : 35 km Nearest Airport Baroda : 125 km
11	Nearest Town, City, District Headquarters along with distance in kms.	Jhagadia – 10 Km Bharuch – 35 km
12	Village Panchayats, Zila Parishad, Municipal Corporation, local body (complete postal address with telephone nos. to be given)	Village : Amod – 393 115 Taluka : Jhagadia District : Bharuch, Gujarat
13	Name of the Applicant	Gujarat Mineral Development Corporation Limited (GMDC)
14	Registered Address	Khanij Bhavan, 132 Ft Ring Road,, University Ground, Vastrapur ,Ahmedabad – 380 052
15	Address for correspondence :	
	Name	Chirag A. Shah
	Designation (Owner/Partner/CEO)	General Manager (Environment)
	Address	Gujarat Mineral Development Corporation Limited (GMDC), Khanij Bhavan, 132 Ft Ring Road, University Ground, Vastrapur, Ahmedabad
	Pin Code	380 052
	E-mail	env@gmdcltd.com
	Telephone No.	079 – 27912747; 9909031790
	Fax No.	079- 27912164
16	Details of alternative sites examined, if any. Location of these sites should be shown on topo sheet.	This is existing operative Bauxite mine having mining lease area 384.9618 Ha with production capacity 10,00,000 TPA hence not applicable.
17	Interlinked Projects	Not Applicable
18	Whether separate application of interlinked project has been submitted?	Not Applicable
19	If yes, date of submission	Not Applicable

S. No.	Item	Details
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.	No
	(a) The Forest (Conservation) Act, 1980.	No
	(b) The Wildlife (Protection) Act, 1972.	No
	(c) The CRZ Notification, 1991.	No
22	Whether there is any Government Order / Policy relevant / relating to the site?	<ul style="list-style-type: none"> • Mining Plan is approved by Ministry of Coal vide F. No. 48024/1/2001-Lig dated 5th December 2001. • EC granted for the lignite mining vide No. J-11015/405/2005-IA.II (M) dated 14th July 2006 having production capacity of 10,00,000 TPA in 384.9618 ha. area under purview of EIA notification 1994. • Lease deed executed vides ML/1598 dated 14/03/2007. • Permission to open Lignite Top and Bottom Seams vide letter no. CC/Tech/Open. Pem./Amod (GMDC)/07-08/19 dated 01/01/2008. • Mine Closure Plan approved vides No. 34011-53-2011-CPAM Dated 11.11.2013
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?	It is existing operative mine
	(a) Name of the Court	Not Applicable
	(b) Case No.	Not Applicable
	(c) Orders/directions of the Court, if any and its relevance with the proposed project.	Not Applicable

Expected cost of the project:

Rs.150 Lakhs

(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.)

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	It is existing operative mine. In G-19 extension mining lease, most of the area is govt. waste land the agriculture is limited to private land only. Total lease area is 384.9618 hectare (258.5547 hectare Govt. Land and 126.4071 hectare is private land). The plantation is only confined to old/inactive dumps on the eastern periphery near mines office/Administrative office on the north western part of the G-19 lease, Desi Baval, Bamboo, Gulmohar, Neem, Sesam, Goras Aml, Sitafal trees etc. were planted in these areas. However rained agriculture activity is still going on in the south of Hankering River in the G-19 extension lease granted by the State Government.
1.2	Clearance of existing land, vegetation and buildings?	Yes	The total area falls under Govt. land and Private Land. Total lease area is 384.9618 hectare (258.5517 hectare Govt. Land and 126.4071 hectare is private land). GMDC Ltd. has applied for mining lease to State Govt. of Gujarat vide letter No. GMDC/ML/32/B/28412/93-94, dated 17 February'93. The State Govt. has recommended the entire area, 384.9618 Hect. for block allotment and the same have been allotted to GMDC by MOC, New Delhi, vide letter no. 48024/1/2001, dated 5th Dec. 2001.
1.3	Creation of new land uses?	Yes	After mining activity and implementation of closure plan mined out area will be converted into Green Belt, water pool (lagoon) for irrigation and pisciculture.
1.4	Pre-construction investigations e.g. bore houses, soil testing.	No	Since it is existing operative mine therefore, all infrastructure already exist.
1.5	Construction works?	No	It is existing operative mine.
1.6	Demolition works?	No	Since it is an existing operative mine and also the land is free from any structure and, therefore, no demolition work is envisaged.
1.7	Temporary sites used for construction works or housing of construction workers?	No	This is existing operative mine all necessary facilities are already available hence, no construction activities involved.

1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	No	No high rise buildings envisaged.								
1.9	Underground works including mining or tunneling?	No	No underground activities involved in the project. It is existing operative opencast Lignite mine. The mining is being carried out by semi mechanized open cast method.								
1.10	Reclamation works.	Yes	Considering less volume of overburden to be mined compared to the quantity of soft clay and sand stone mineral, is proposed that after the completion of mining operation the mined out area will be converted into Green belt, water pool (lagoon) for irrigation and pisciculture. The waste dumps and the other area will be reclaimed in a phased manner through afforestation. Backfilling has started from April 2013. 1.44 Ha of OB dump has been reclaimed and has become self sustainable.								
1.11	Dredging?	No	Not Applicable								
1.12	Offshore structures?	No	Not Applicable								
1.13	Production and manufacturing processes?	Yes	Mining of lignite (10,00,000 TPA). Production Process: The Rajpardi lignite block G-19 extension is operating by mechanized opencast method of mining with conventional mining equipment i.e. shovel and dumper combination. The overburden strata are soft and clayey which does not require any blasting and can be easily excavated by hydraulic excavators, including lignite seam. The overburden is excavated by hydraulic excavator of 2.5 to 5 M3 bucket capacity with matching size of haulers (dumper) of 25 T and 35 T. capacity The excavated overburden is stacked on designated waste dump site, which is being used for back filling of the decoaled area.								
1.14	Facilities for storage of goods or materials?	Yes	As per Conceptual plan. Top soil scrapped out during mining processes is stacked properly in an earmarked area. Till 31 st March 2018, 20.23 Lac M3 top soil has stored in 13.27 Ha of area, which is being used for green belt development. There are 3 external dumps in the present scenario, the details of which is furnished below:								
			<table border="1"> <thead> <tr> <th>Sl</th> <th>Dump</th> <th>Height</th> <th>Slope</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Sl	Dump	Height	Slope				
Sl	Dump	Height	Slope								

			no			
			1	South- Eastern side Dump-1	26	260
			2	South-Western Side Dump-2	12	250
			3	Western side Dump-3	16	260
			Backfilling has started from April 2013. 1.44 Ha of OB dump has been reclaimed and has become self sustainable.			
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	<p>The seepage water generated during mining process is treated with caustic soda lye in Primary Effluent Treatment Plant and further used in sprinkling purpose as well as for watering to plantation in the mine area. Oil skimmer has been installed at vehicle workshop and the water is reused for the purpose of vehicle washing. No effluent is generated and discharged from workshop.</p> <p>Top soil scrapped out during mining processes is stacked properly in an earmarked area and it is being used for green belt development. Overburden is being used for the Backfilling of mined out area.</p>			
1.16	Facilities for long term housing of operational workers?	Yes	<p>It is existing operative lignite mine. At present following site facilities are available in the ML area.</p> <ul style="list-style-type: none"> • A mine office is already present in the lease area for keeping the records and supervision by mines manager. • A rest shelter for resting of laborers during lunch interval. • A water hut for drinking water facility for employees. • A dispensary is provided in the office. • Separate urinals for men and women. • A colony has established in nearby area of mine with recreational facilities. 			
1.17	New road, rail or sea traffic during construction or operation?	No	Not Applicable. Mine is already in operation.			
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	Not Applicable. Existing facilities will be used.			
1.19	Closure or diversion of existing transport routes or infrastructure leading to	No	Not Applicable. Existing facilities will be used.			

	changes in traffic movements?		
1.20	New or diverted transmission lines or pipelines?	No	Not Applicable
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	Not Applicable
1.22	Stream crossings?	Yes	Hankaran Nallah
1.23	Abstraction or transfers of water from ground or surface waters?	No	The total water requirement is 500 KLD. The seepage water generated during mining process is treated with in Primary Effluent Treatment Plant and further used in sprinkling purpose as well as for watering to plantation in the mine area. Oil skimmer has been installed at vehicle workshop and the water is reused for the purpose of vehicle washing. No effluent is generated and discharged from workshop. STP is in operation for residential colony domestic water and soak pit has provided for mine domestic water.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	No change in water bodies or land surface affecting drainage or run off is proposed. Garland drain will be made in the working area wherever required as per approved Mining Plan.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	No	It is existing operative open cast semi-mechanized lignite mine in which local manpower already deployed from nearby villages. Thus, no transportation of personnel envisaged. Whereas, dumpers of 25 and 35 Tonnes capacity is being used for transportation of minerals as well as waste within the lease area.
1.26	Long-term dismantling or decommissioning or restoration works?	Yes	No dismantling/decommissioning works are envisaged during operation of mine. However post mining, mine land shall be duly reclaimed /rehabilitated as per Final Mine Closure Plan.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	The mined out area will be converted into Green belt, water pool (lagoon) for irrigation and pisciculture.
1.28	Influx of people to an area in either temporarily or		It is an existing operative mine and project has provided employment positively to boost income of

	permanently?	Yes	people in both the way i.e. direct as well as indirect. The project is having positive impact on consumption behavior by way of raising average consumption and income through multiplier effect.
1.29	Introduction of alien species?	No	Not Applicable
1.30	Loss of native species or genetic diversity?	No	Not Applicable
1.31	Any other actions?	No	Not Applicable

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.N.	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	Survey of India, Toposheet No. G 46/2. Survey No. 168 Paiki for 258.5547 Ha. Govt. Waste Land and 126.4071 Ha. Pvt. Land with various Survey Nos.
2.2	Water (expected source & competing users) unit: KLD		The total water requirement is as given below: 1) Drinking Water requirement for Mine = 40 KL/Day. 2) Water requirement for dust suppression = 300 KL/Day. 3) Water requirement for residential colony for domestic use = 150 KL/Day Total water requirement = 490 or say 500 KL/Day.
2.3	Minerals (MT)	No	Nil
2.4	Construction material – stone, aggregates, sand/soil (expected source – MT)	No	It is existing operative mine, no construction activities involved.
2.5	Forests and timber (source – MT)	No	Not Applicable
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	Electricity- One 11 KV overhead line from which the electricity is stepped down to 500 KVA substation near mines canteen. This power is sufficient for mine lightings and for the pump age of water. In addition to this, 500 KVA and 250 KVA DG sets are available to provide emergency power requirement for pumping.

			Diesel requirement is being fulfilled from nearby diesel filling stations which have been required for machineries, instruments and transportation vehicles like excavators, dumpers, dozers, etc.
2.7	Any other natural resources (use appropriate standard units)	No	Not Applicable.

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.N.	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)	No	Not Applicable
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	No such substances or material is being used which cause changes in occurrence of disease or disease vectors. Proper housekeeping & sanitation is being maintained to keep the work places free from disease causing vectors. Water sprinkling carried out for dust suppression.
3.3	Affect the welfare of people e.g. by changing living conditions?	Yes	<p>The project has improved the living conditions of the people. Lignite Mining in the area is being involved in various socio-economic activities, which is being generate employment, the following measures are taken to improve quality of life of the people:</p> <ul style="list-style-type: none"> i) Planting of economically important trees ii) Use of clean and filtered water iii) Providing drinking water iv) Personal hygiene and small dispensary v) Approach roads to surrounding villages vi) Preference in skilled and non-skilled job vii) Company is being taking all necessary steps to help and create self-employment opportunities for nearby villagers. <p>The main factors of occupational health on lignite mine are emission of fugitive dust and noise. To avoid any adverse effects on the</p>

			<p>health of workers due to dust, noise and other causes following measures has taken:</p> <ul style="list-style-type: none"> • Provision of personal protection devices to the workers. • Rotation of workers exposed to noise premises. • Effective dust suppression of haul roads. • First -aid facilities in mining area. • Provision of amenities like drinking water, toilets etc. <p>Mining has enhanced the socio-economic environment of the area.</p>
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	Not envisaged
3.5	Any other causes	No	Not applicable

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

S.N.	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	Overburden & Top soil generated during entire life will be kept in the dump area which will be reclaimed through plantation after completion of the mining work.
4.2	Municipal waste (domestic and or commercial wastes)	No	Domestic waste generated from mines office is being disposed to soak pit.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	Used oil is being collected and disposed through authorized vendors.
4.4	Other industrial process wastes	No	Not Applicable
4.5	Surplus product	No	Not Applicable
4.6	Sewage sludge or other sludge from effluent treatment	Yes	<p>Domestic sewage generated from mining area is disposed off through soak pits.</p> <p>Sewage Treatment Plant (STP) has installed in residential colony that is working efficiently and sludge generated from STP is being used as compost for plantation.</p>

			Effluent from mining is used for dust suppression on mining road, irrigation purpose after due treatment in Primary Water Treatment Plant and sludge generated shall be disposed off to TSDF site. Rain water is canalized through garland drain and small sedimentation tank to arrest the suspended solids.
4.7	Construction or demolition wastes	No	Not applicable
4.8	Redundant machinery or equipment	No	Not Applicable
4.9	Contaminated soils or other materials	No	Not Applicable
4.10	Agricultural wastes	No	Not Applicable
4.11	Other solid wastes	No	Not Applicable

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

S.N.	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	The only source of emission is diesel operating vehicles which are regularly monitored and maintained to keep the emission below TLV.
5.2	Emissions from production processes	Yes	<p>During mining operation the air pollution caused due to sources like drilling, blasting, movement of transport vehicles, wind effects etc. does not rise to very high elevation beyond the mining lease area. It is observed that the ambient SO₂, NO_x and CO concentrations are within the prescribed limit and there appears to be no adverse impact on the ambient air quality due to mining operation.</p> <p>Overburden and the entire inter burden occurring in this deposit is soft clays & sand stone which do not require drilling and blasting. Currently excavated and removed by hydraulic excavators & dumpers of varying size by the corporation and it's over burden removal contractors.</p>
5.3	Emissions from materials handling including storage or transport	Yes	The loading of material and transportation may lead to generate dust pollutants. However, Systematic & scientific mining activities is being adopted, mine haul roads are sprayed with water

			to control dust emission. Periodical maintenance of HEMMs is being done regularly to control emissions. Water sprinkling during loading and unloading of excavated materials is regularly undertaken.
5.4	Emissions from construction activities including plant and equipment	No	Not Applicable
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	Yes	There is no separate dust or odor which will be generated. However, emission of dust from mining activity as mentioned earlier in Para 5.3 will be there.
5.6	Emissions from incineration of waste	No	Not Applicable
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	Not Applicable
5.8	Emissions from any other sources	No	Not Applicable

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

S.N.	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	There will be noise generated by hydraulic excavators & dumpers. Noise control measures are adopted. Personal Protective Equipments (PPE) like ear muffs/ear plugs are being provided to the workers including operators of mining machinery. Monthly ambient noise monitoring is being carried out and proper maintenance of noise generating equipment's is being done the monitoring report is being submitted to statutory authorities periodically.
6.2	From industrial or similar processes	No	Not Applicable
6.3	From construction or	No	Not Applicable

	demolition		
6.4	From blasting or piling	No	Overburden and the entire inter burden occurring in this deposit is soft clays & sand stone which do not require drilling and blasting.
6.5	From construction or operational traffic	Yes	The same will be monitored and control measures will be taken accordingly.
6.6	From lighting or cooling systems	No	Not Applicable
6.7	From any other sources	No	Not Applicable

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.N.	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	No	Not Applicable.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	Yes	Domestic sewage generated from mining area is disposed off through soak pits. Sewage Treatment Plant (STP) has installed in residential colony that is working efficiently and sludge generated from STP is being used as compost for plantation. Effluent from mining is used for dust suppression on mining road, irrigation purpose after due treatment in Primary Water Treatment Plant and sludge generated shall be disposed off to TSDF site. Rain water is canalized through garland drain and small sedimentation tank to arrest the suspended solids.
7.3	By deposition of pollutants emitted to air into the land or into water	Yes	To be evaluated and control measures if required will be adopted.
7.4	From any other sources	No	Not envisaged.
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	Yes	All the emissions from the Mine operations are controlled and in compliance with CPCB/SPCB norms.

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

S. No.	Information/Checklist	Yes/	Details thereof (with approximate
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	confirmation	No	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	No	Not Applicable.
8.2	From any other causes	No	Not Applicable.
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	No	Not Applicable.

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:

S.N.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
9.1	<p>Lead to development of supporting facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.:</p> <ul style="list-style-type: none"> • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • Housing development • Extractive industries • Supply industries • Other 	No	<p>GMDC was established in 1963, the company has done lot of activities for benefit and development of society in the area. The activities of the company given in brief:</p> <ul style="list-style-type: none"> • Water Resource Management • Health care program • Women empowerment • Education • Infrastructure development • Skill development programm
9.2	Lead to after-use of the site, which could have an impact on the environment	Yes	It is existing operative mine and backfilled of mined out area has initiated along with plantation.
9.3	Set a precedent for later developments	Yes	This is an existing operative mine project has set precedence in the area for environmental preservation and socio-economic improvement.

9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	There are no other existing or planned projects adjoining to existing lignite mine, hence, no direct cumulative impact are envisaged. GMDC already adopted site specific mitigation measures in line with existing EC conditions.
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(III) Environmental Sensitivity

S.N.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	Not Applicable
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	No	Not Applicable
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	Not Applicable
4	Inland, coastal, marine or underground waters	No	Not Applicable
5	State, National boundaries	No	Not Applicable
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	Not Applicable
7	Defense installations	No	Not Applicable
8	Densely populated or built-up area	Yes	Village Rajpardi at around 5 kms.
9	Areas occupied by sensitive man-made land uses	Yes	Village Rajpardi at around 5 kms.

	<i>(hospitals, schools, places of worship, community facilities)</i>		
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	The details of water bodies and nearest park are mentioned below: <ul style="list-style-type: none"> • Narmada River: 8.68 km in NW direction • Arabian Sea: 59.25 km in SW direction • Dholi Dam: 9.83 km in E direction • Canal: 0.88 km in SE direction • Shoolpaneshwar Wildlife Sanctuary: 59.15 km in SWW direction • Jambughoda Wildlife Sanctuary: 85.15 km in NE direction
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	

IV) Proposed Terms of Reference for EIA studies

The Proposed TOR is as follows:-

This is existing operative mine for which EC has been granted by MOEFCC vide no. J-11015/405/2005-IA.II (M) dated 14th July 2006 having production capacity of 10,00,000 TPA in 384.9618 ha. area under purview of EIA notification 1994. This application is for the validation of existing EC under the purview of EIA Notification 2006 in reference to MOEFCC Notification dated 6th April 2018 and EIA/EMP Report, if require, will be prepared by CSIR-Central Institute of Mining and Fuel Research, Dhanbad on the basis of the standard guidelines of Ministry of

Environment and Forests Gazette Notification No. S.O. 60(E) dated 27th January, 1994 and modified as per Notification No. S.O. 1533 dated 14th September 2006.

EC granted for the lignite mining vide No. J-11015/405/2005-IA.II (M) dated 14th July 2006 having production capacity of 10,00,000 TPA in 384.9618 ha. area under purview of EIA notification 1994.

The Proposed TOR is as follows:-

1. Assessment of present status of air, water, noise, land /soil, land use, hydrology, hydro-geology, biotic environment (ecological studies), socio-economic, demographic and other component of environment as per the applicable EIA notifications and other guidelines in the respective impact zones viz. Core Zone and Buffer Zone of the mines
2. One season (non-monsoon) primary baseline data with respect to air quality (PM_{2.5}, PM₁₀, SO₂ and NO_x), water quality, noise level, soil and flora and fauna.
3. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, water bodies, settlements and other ecological features. Land use plan of the mine lease area as operational and post operational phases.
4. Details of land for any over burden dumps outside the mine lease area, distance from mine lease, its land use, R&R issues, etc.
5. Socio-economic survey of the study area.
6. Biological study of the study area with necessary conservation plan for Scheduled-I fauna, if required.
7. R&R Plan/compensation details for the Project Affected People (PAP), if required.
8. The water requirement of the project, its availability, source and water balance study.
9. Impact of the project on air quality and necessary safeguard measures.
10. Impact of the project on water quality and necessary safeguard measures, if any required.
11. Conceptual post mining land use, Reclamation, Progressive Greenbelt Development plan, etc.
12. Identification and description of the environmental monitoring program to be adopted.
13. Detailed environmental management plan to mitigate various environmental impacts.

14. Details of onsite shelter and facilities to be provided to the mine workers.

15. **GMDC has earlier applied in MOEFCC for the validation of existing EC under the purview of EIA Notification 2006 and the detail of TOR proposal is given below**

- 1. Proposal No. : IA/GJ/CMIN/81346/2018**
- 2. Name of the Proposal : Revalidation of EC of Amod Lignite Mine Project (G-19 Extension)**
- 3. Category of the Proposal : Coal Mining**
- 4. Project/Activity applied for: 1(a) Mining of minerals**
- 5. Date of submission for TOR: 30 Nov 2018**
- 6. Detail of TOR issued : IA-J-11015/137/2018-1A-II(M) dated 26 Feb 2019.**

Here, we humbly request EAC (Coal) – MOEFCC to exempt Public Hearing for this project based on our following justifications.

- EIA study was already done for whole mine area of 378.96 Ha in 2003 for 1 MTPA lignite production and we are neither increasing the area as well as production.**
- Public hearing was earlier conducted on 19.10.2004 for the same area as well as same production capacity.**
- EC was granted vide letter dated 14.07.2006 for whole area of 378.96 Ha for 1 MTPA lignite production.**
- There is no increase in mine lease area or production capacity or mining method. The mining method will also be same as considered originally while grant of existing EC i.e.**

through opencast mining method. There will be no requirement of blasting & no use of explosives.

- **The certified compliance report of EC conditions compliance received from RO, MOEFCC, Bhopal is also submitted herewith as additional file.**
- **Further, as per Ministry's OM dated 15th September, 2017, the projects are exempted from public hearing even for expansion up to 25 % capacity as done for the following projects.
e.g. Agenda 41.1 (41.1.4), 41.2 (41.2.5), 41.3 (41.3.4) etc. mentioned in MOM of 41st meeting of EAC for Thermal & Coal Mining Sector held on 13-14 December, 2018. However, in our case there is no increase in production.**
- **As per TOR conditions, we have already initiated EIA study.**

(b) "I, hereby, give undertaking that the data and information given in the application and enclosures are true to 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

Applicant:

Chirag A. Shah,
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