Status of Compliance to Conditions Stipulated in Environmental Clearance granted by MoEFCC Vide order no. J-11015/449/2012-IA.II (M) dated 02.09.2015 for 2.32 MTPA of Kuteshwar Limestone Mines (Right Bank Lease)

(Period: Upto Sept'2017)



STEEL AUTHORITY OF INDIA LIMITED

RAW MATERIALS DIVISION KUTESHWAR LIMESTONE MINES P.O. – BARHI, PIN :483770

DIST.: KATNI

MADHYA PRADESH

Status of Compliance to Conditions Stipulated in Environmental Clearance (Vide order no. J-11015/449/2012-IA.II (M), dt.02.09.2015) of Kuteshwar Limestone Mines (Right Bank Lease), RMD, SAIL

(Period: upto SEPTEMBER, 2017)

A. Specific Conditions

Cond. No.	Condition Stipulated	Compliance Status as on March,2017
(i)	Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court of Madhya Pradesh and any other Court of Law, if any, as may be applicable to this project.	Noted and agreed.
(ii)	Environmental clearance is subject to obtaining clearance, if any, under the Wildlife (Protection) Act, 1972 from the Competent Authority as applicable to this project.	No notified National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve are located within 10 kms from the Mining Lease boundary. Hence the it is not applicable to this mining project.
(iii)	No mining activities will be allowed in forest area, if any, for which the Forest Clearance is not available.	No forest area involved in the project.
(iv)	The Project Proponent shall obtain Consent to Operate from the State Pollution Control Board, Madhya Pradesh and effectively implement all the conditions stipulated therein.	The Consent to Establish for the project has been granted by MPPCB by vide CTE-45185 dated 30/12/15. Subsequently, Consent to Operate has been granted vide AW-45395 on 23/02/16. The CTO was renewed vide AW-46596 on 21/01/17 with validity upto 31.01.2018. The conditions stipulated in CTO are being implemented.
(v)	Project Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical checkup once in six months and necessary medical care/preventive measures undertaken accordingly. Recommendations of National Institute for Labour for ensuring good occupational environment for mine workers should also be adopted.	One Doctor has been identified and trained for occupational health specialist. Regular & periodical health check-ups are being done covering all the workers. USG machine, ECG machine, Dental Chair, Pathology, Audiometer & Spirometer are available at OHC. Necessary medical care and preventive measured are being taken. Recommendations of National Institute of Labour for ensuring good occupational environment for mines workers are adopted.

Cond. No.	Condition Stipulated	Compliance Status as on March,2017
(vi)	Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The PP shall complete all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing.	Action plan with time frame and budgetary provision has been prepared to address the issues raised during the Public Hearing. The same is being implemented.
(vii)	The pollution due to transportation load on the environment will be effectively controlled & water sprinkling will also be done regularly. Vehicles with PUCC only will be allowed to ply. The mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be overloaded. Project should obtain 'PUC' certificate for all the vehicles from authorized pollution testing centres.	Water sprinkling on haul roads is being done by deploying 2 nos. of mobile water sprinklers. Further, procurement of 28 KL high pressure water sprinkler is under process. Pollution checks of all transportation vehicles being done regularly. Vehicles with PUC, no overloading are being ensured.
(viii)	There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.	Rainwater Harvesting Plan has been prepared in consultation with CGWB, Bhopal with rainwater harvesting of about 45,000 KL / annum. The plan involving the following: Roof water harvesting from buildings & offices – 50,000 sqm through Collection sumps with DCB's – 10 nos. Rain water Harvesting from Run off water from Roads & Paved areas – 143500 sqm. Through Percolation Ponds with recharge wells. Rain water harvesting from Green Belt & Open area through 100 Mini Percolation Pits.
(ix)	Use of effective sprinkler system to suppress fugitive dust on haul roads and other transport roads shall be ensured; and Washing of all transport vehicle should be done inside the mining lease.	02 nos. Water Sprinklers – one 12 KL & 16KL respectively already operating. One 28KL tanker with pressured sprinkler planned for purchase along with procurement of HEMM's for the increased capacity. The washing of all transport vehicles is being done inside the mining lease.
(x)	Project Proponent shall ensure that there should not be cross traffic from Left Bank Lease to Right Bank Lease or Vice Versa.	There is no question of cross- traffic for Left bank to Right Bank as per approved mining plan for Left bank lease, as the material will be manually sized in the pit & transported to Railway Siding at Khanna

Cond. No.	Condition Stipulated	Compliance Status as on March,2017
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(xi)	The Proponent shall implement the Wildlife Conservation Plan, along with the funds so allocated with consultation of Chief Wild Life Warden of the State Govt. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office, Bhopal and he Chief Wild Life Warden of the State Govt. The Project Proponent shall also take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted in the study area.	No forest land involved in the leasehold area. As per the study done, there is no Schedule – 1 & endangered species found in and around the mining lease.
(xii)	Advanced technologies for environmental protection shall be used for controlled blasting specially in the areas in the vicinity of the villages/habitations. Blasting operation shall be carried out only during the daytime. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented. Drills shall either be operated with dust extractors or equipped with water injection system. Secondary blasting for reducing the boulder size will be avoided by using rock breaker. All measures will be adopted to control fugitive dust emission during mining operation and to ensure no impact on nearby habitats. Green belt (15 m width) and plantation will be developed towards habitation, water bodies and al along the pit boundary.	To control the blasting vibrations, NONEL is being used at the mines. The ground vibration level (PPV) is well within the norms. Rock Breakers are being used to avoid secondary blasting. Comprehensive green belt development plan has been prepared for Kuteshwar Limestone Mines. The project will be completed by 2019-20.
(xiii)	Project Proponent shall carry out vibration studies well before approaching any such habitats or other buildings, to evaluate the zone of influence and impact of blasting on the neighbourhood. Within 500 meters of such sites vulnerable to blasting vibrations,	Ground Vibration study has been done. PPV are in the range of 0.38-2.29 mm/sec and are well within norm of 15 mm/sec. Procurement of Seismograph is under process.

Cond.	Condition Stipulated	Compliance Status as on March,2017
	avoidance of use of explosives and adaptation of alternative means of mineral extraction, such as ripper/dozer combination/ rock breakers/surface miners etc. should be seriously considered and practiced wherever practicable. A provision for monitoring of each blast should be made so that the impact of blasting on nearby habitation and dwelling units could be ascertained.	
(xiv)	Mining shall be carried out as per the provisions outlined in mining plan approved by Indian Bureau of Mines (IBM) as well as by abiding to the guidelines of Directorate General of Mines Safety (DGMS).	Mining is being done as per the IBM approved Mining Plan / Scheme of Mining. DGMS guidelines are being complied with. Same shall be continued.
(xv)	Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers. Crusher and material transfer points should invariably be provided with Bag filters and or dry fogging system. Belt-conveyors should be fully covered to avoid air borne dust.	To control haul road emissions, 2 nos. Water Sprinklers have already been deployed. One 28KL tanker with pressured sprinkler planned for purchase. Installation of permanent water near Crushing & Screening Plant has been completed, Dry-fog dust suppression system and closed belt conveyors have been envisaged for the Crushing & Screening Plant.
(xvi)	The Project Proponent shall ensure that the productivity of agricultural crops is not affected due to mining operations. Crop Liability Insurance Policy has to be taken by the Project Proponent as a precaution to compensate for any crop loss. The impact zone shall be 5 km from the boundary of mine lease area for such insurance policy.	Most of the area upto 5 km from the mines is under the submergence of Bansagar Reservoir. Greenbelt is being developed to arrest the dust from the mines and ensured no adverse affect on agriculture fields. Further, crop liability insurance policy shall be explored. The proposal for green belt development has been prepared.
(xvii)	The illumination and sound at night at project site, disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. Project Proponent must ensure that the	Illumination at quarry has been provided as per statutory requirements. Necessary care has been taken to keep the lights away from the villages. Noise levels is being maintained within the limits at both day and night times.

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	biological clock of villages is not disturbed;. by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/ night hours.	
(xviii)	Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers.	Water sprinkling through water tankers is being done to control the haul road dust. Proposal for permanent water sprinkler is under process for installation on main haul road along approach roads to Crushing & Screening Plants.
(xix)	CSR activities by Companies including the Mining Establishments has become mandatory up to 2% of their financial Turn – over, Socio-Economic Development of the neighbourhood Habitats could be planned and executed by the Project Proponent more systematically based on 'Need based door to door survey' by established Social Institute/Workers. The report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office located at Bhopal on six monthly basis.	Various social welfare activities are being taken by the SAIL, Kuteshwar Limestone Mine and has played major role in the up-liftment of the region An amount of Rs. 38.77 lakhs has been spent during 2017-18 (till Sept'17) on CSR activities. The details are being submitted to MoEFCC and MPPCB on six monthly basis. The of 'Need based survey' implementation is under progress.
(xx)	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Most of the construction labour have been hired from the local villagers and only few are being hired from outside, for which housing facilities along with necessary infrastructure are being provided at the existing colony of the mines.
(xxi)	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment, Forest & Climate Change 5 years in advance of fine mine closure for approval.	

B. General Conditions

Cond. No.	Condition Stipulated	Compliance Status as on March,2017
(i)	No change in mining technology and scope of working should be made without prior approval of the MoEFCC.	Mining is being done as per the approved Mining Plan/ Scheme of Mining. No change in mining technology and scope of work has been made.
(ii)	No change in the calendar plan including excavation, quantum of limestone and waste should be made.	ROM production from Right Bank Lease shall be maintained below the approved limit of 2.32 MTPA. ROM Production during 2017-18(till Sept'17):
(iii)	The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and ground water for the project.	0.63 MT Central Ground Water Authority accorded NOC for ground water withdrawal for Kuteshwar Limestone Mine vide No. 21-4 (167)/NCR/CGWA/2014-689, dated 30.04.2015.
(iv)	Regular monitoring of ground water table to be carried out at the upstream and depth of water available in the dug well is to be measured. Monitoring to be done by establishing a network of existing wells and constructing new piezometers.	Network 5 nos. of existing Dug Wells located around the mines have been selected for ground water level monitoring. Ground water table levels at the selected wells shall be monitored at regular intervals i.e. 4 times in a year. Action is being taken for installing piezometers by establishing network with the existing dug wells.
(v)	Monitoring of Ambient Air Quality to be carried out based on the 2009 Notification, as amended from time to time by the Central Pollution Control Board. Water sprinkling should be increased at places loading and unloading points & transfer point to reduce fugitive emissions.	Four ambient air quality monitoring stations have been established based on the topography and meteorological conditions of the area. Regular ambient air quality monitoring of key parameters to mining industries as per the guidelines of MoEFCC and CPCB is being done. Water sprinkling is being done at loading and unloading points & transfer point to reduce fugitive emissions.
(vi)	The up liftment of scheduled caste/ scheduled tribe population, specific programmes have been taken in to consideration specially with respect to education, health care, livelihood generation, infrastructure development & promotion of	SAIL, Kuteshawar Limestone Mines has taken special effort to undertake new initiatives to improve the quality of life of SC/ST population in the villages surrounding the mines .under the CSR activities in the areas of Health

Cond.	Condition Stipulated	Compliance Status as on March,2017
No.	sports & culture for SC/ST population and that these will be intensified in future.	&hygiene, Women empowerment, Income generation & livelihood, Education, Sports and cultural activities. These CSR activities are intensified for further increasing quality of life of tribal population. Spent Rs. 38.77 lakhs during 2017-18 (till Sept'17) under CSR.
(vii)	The top soil, if any, shall temporarily be stored at earmarked site (s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation The overburden(OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for long period of time. The maximum height of the dumps shall not exceed 8m and width 20m and overall slope of the dump shall be maintained at 45 deg. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface runoff. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest & Climate Change and its Regional Office located at Bhopal on six monthly basis.	Top soil is being used concurrently for plantation areas. The OB dumps are being stabilized with shurbs / grasses to control soil erosion and runoff control. Status of compliance is being informed to MoEFCC and MPPCB on six monthly basis.
(viii)	Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains, settling tanks and check dams of appropriate size,	

Cond. No.	Condition Stipulated	Compliance Status as on March,2017
	gradient and length shall be constructed both around the mine pit and overburden dumps to prevent run off to water and flow of sediments directly into the river and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and de-silted at regular intervals.	
(ix)	Plantation shall be raised in a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.	Development of greenbelt covering about 5.1 km all along the protection bund and about 1 km in between mines and Gairtalai Village in consultation with MP Rajya Van Vikas Nigam Limited is under progress. Shall be completed within span of 5 years.
(x)	Dimensions of the retaining wall at the toe of over burden dumps and OB benches within the mine to check run-off and siltation shall be based on the rain fall data.	Toe walls, garland drains and siltation pond at the OB Dumps have been constructed to control the surface runoff from the OB dumps. Based on the rainfall of the region, 0.50 m width and 1.5 to 2.0 m height toe walls and 0.50 m width and 0.50 m depth garland drains are being provided at both the mines.
(xi)	Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM10 and PM2.5 such as haul road, loading and unloading point and transfer points. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central	Control of fugitive dust emission through water sprinkling is done at crushing and screening plant. 2 nos. of haul road water sprinklers are being used to control dust emission for ore transport roads. Procurement of additional 28 KL high pressure haul road water sprinkler is under process. Ambient air in and around

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110.	Pollution Control Board in this regard.	the mines is being maintained within the standards.
(xii)	Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintained. Regular monitoring of water quality upstream and downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to Ministry of Environment, Forest & Climate Change, its Regional Office, Bhopal, Central Groundwater Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.	The quality of water at U/s and D/s of Chhoti Mahanadhi River is being done regularly and results are being submitted to both MoEFCC and MPPCB on six monthly basis.
(xiii)	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried our four times in a year – pre-monsoon (April-May), monsoon (August), post monsoon (November) and winter (January) and data thus collected may be sent regularly to Ministry of Environment, Forest& Climate Change and its Regional Office, Bhopal, Central Ground Water Authority and Regional Director, Central Ground Water Board.	Network 5 nos. of existing Dug Wells located around the mines have been selected for ground water level monitoring. Ground water table levels at the selected wells is being monitored at regular intervals i.e. 4 times in a year. Proposal is being prepared for installing piezometers by establishing network with the existing dug wells.
(xiv)	The critical parameters such as PM10, PM2.5, NOx in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored[(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The circular No.J-20012/1/2006-IA.II(M) dated 27.05.2009 issued	Critical parameters i.e. PM10, NOx and SO2 in ambient air and relevant parameters in the effluents are being monitored regularly. The monitored data is being displayed in General Offices. Copy of EC compliance along with environmental quality data is being uploaded to the company website www.sail.co.in.

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	by Ministry of Environment, Forest & Climate Change, which is available on the website of the ministry www.envfor.nic.in shall also be referred in the regard for its compliance.	
(xv)	Four ambient air quality- monitoring stations should be established in the core zone as well as in the buffer zone for PM10, PM2.5, SO2 & NOx monitoring. Location of the stations should be decided based on the meteriological data, topographical features and environmentally and ecologically sensate targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board. Data on ambient air quality should be regularly submitted to the Ministry including its Regional Office located at Bhopal and the State Pollution Control Board/ Central Pollution Control Board once in six months.	Four ambient air quality monitoring stations have been established based on the topography and meteorological conditions of the area. Regular ambient air quality monitoring of key parameters (PM2.5 , PM10, SO2 and NOX) . Ambient air quality monitoring data is being submitted to MoEF&CC, New Delhi and Regional Office, Katni along with the compliance reports.
(xvi)	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	Adequate nos. of fugitive dust emission control measures have been provided at the mines. High pressure water jet for dust suppression at the mineral handling plants and water sprinklers at haul roads / transfer points have also been provided. Details of major fugitive dust control measures at various main unit operations are as follows: Drilling – Wet drilling is being practiced. Blasting – Controlled blasting by using slurry explosives & NONEL technology is being followed to control the dust generation during blasting. Haulage – Haul roads are regularly sprinkled with water by 2nos. mobile water sprinklers
(xvii)	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/ muffs.	Regular maintenances and periodic checks of the HEMM are being carried out to control noise below 85 dB(A) in the work environment. The operators engaged in blasting/ drilling operations and operator of

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NO.		HEMM are provided with protective ear plug/ear muffs with helmet.
(xviii)	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards under GSR 422 (E) dated 19 th May,1993 and 31 st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.	ETP consisting of oil & grease trap has been provided for treating the effluents from garages. Mine discharge water is being monitored regularly and found to be compliance with standards.
(xix)	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.	Dust masks have been provided to personnel working in dusty areas i.e. drilling, excavation, unloading & loading areas, crushing & screening areas. Training on safety and health aspects is being imparted on regular basis. A full fledged Occupational Health Centre is run by the mines for regular health surveillance.
(xx)	Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Periodical Medical Examination (PME) of all workmen working in the mines is being done at our Occupational Health Centre once in every five years/three/one year depending on category. Additional PME is also conducted as per the recommendation of 10th & 11th conference of Safety, DGMS, Dhanbad.
(xxi)	A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior- Executive, who will report directly to the Head of the Organization.	An Environment Management Cell (EMC) has been established at the Kuteshwar Limestone Mine to carry out the environmental management activities including implementation and maintenance of Environmental Management System. The EMC is headed by an Dy. General Manager, who directly reports to the General Manager (Mines).
(xxii)	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office	Adequate fund is being allocated for environmental management activities at the mines. The allocated fund is being utilized only for environmental activities and not diverted for any other jobs. During the year 2017-18 (till Sept'17) an amount of Rs. 12.81 Lakh has

Cond. No.	Colluition Supulated	Compliance Status as on March,2017 heen spent towards environmental
101	located at Bnopai.	management.
(xxiii)	The project authorities should inform to the Regional Office located at Bhopal regarding date of Financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	The Kuteshawar Limestone Mine (Right Bank Lease) is operating since 1973. This is a running mine. No specific date of start of land development work can be assigned.
(xxiv)	The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/information/ monitoring reports.	Full co-operation is extended to the officers of the Regional Office, MoEF&CC, Katni/ Jabalpur, by furnishing the requisite data/ information / monitoring reports.
(xxv)	The project proponent shall submit six monthly report on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional office, Bhopal, Central Pollution Control Board and State Pollution Control Board.	Six monthly compliance reports on the status of implementation of environmental safeguards are being submitted to MoEF&CC, New Delhi, Regional Office – MoEF&CC, Bhopal CPCB, MPPCB.Copy of the compliance report including environmental quality data is being uploaded to the SAIL web site i.e. www.sail.co.on.
(xxvi)	A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion/ representation has been received while processing the proposal.	has already been sent to the drain ranchayan
(xxvii)	State Pollution Control Board should display a copy of the clearance letter	
(xxviii)	The project authorities should advertise at least in two local newspaper widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter.	06.09.2015. and mildi News Tuper 5

6.11-12 [A. Sharma]

General Manager (Mines) Kuteshwar Limestone Mine,

P.O.Barhi – 483 770, Dist. : Katni, Madhya Pradesh