# No. J-11015/12/2013-IA.II (M) Government of India Ministry of Environment & Forests

Paryavaran Bhawan, CGO Complex, Lodi Road New Delhi-110003 Dated: 24<sup>th</sup> December, 2013

To Mr. Pramod Menon, Managing Director, M/s Barmer Lignite Mining Company Ltd., 308-311, Gitanjali Towers, Ajmer Road, Jaipur - 302006 Rajasthan

Sub: Expansion (under 7(ii) of EIA Notification 2006) of Kapurdi Lignite opencast Mine project of (expansion from 3 MTPA to 3.75 MTPA in ML area of 3223.5110 ha) of M/s Barmer Lignite Mining Company Ltd., Dist. Barmer, Rajasthan- Environmental Clearance

Sir,

This has reference to letter no. BLMCL/Barmer/2012-13 dated 11.01.2013 submitting application for expansion of the production under section 7(ii) of the EIA Notification, 2006. EC was granted to the project vide letter no J-11015/472/2007 IA-II(M) of even number dated 10.12.2008 and the revised EC dated 20.5.2010 to the above mentioned Project. Reference is also invited from M/s Barmer Lignite Mining Company Ltd. bearing no. BLMCL/MoEF/2013/003 dated 12.04.2013; 23.05.2013; 07.06.2013; 09.06.2013; 27.09.2013; 03.10.2013 and 09.10.2013 in this regard.

- 2. The Ministry of Environment & Forests has considered the application. MoEF granted environmental clearance for 3.0 MTPA vide letter no. J-11015/472/2007-IA.II (M) dated 10.12.2008 and 20.05.2010. The mine started developmental activities in April and achieved its rated capacity i.e. 3 MTPA in the year 2012-13. It is noted that the application is for Environmental Clearance for expansion of Kapurdi Lignite Open Cast Mine project of (expansion from 3 MTPA to 3.75 MTPA in ML area of 3223.5110 ha) of M/s Barmer Lignite Mining Company Ltd., Dist. Barmer, Rajasthan EC under 7(ii) of EIA Notification 2006. The proponent made the presentation and informed that:
- i. It is the expansion project having joint venture of M/s Rajasthan State Mines and Minerals Limited, (51% stack holding) and M/s Rajwest Power Limited (49%) stack holding. Ministry accorded EC vide letter no. J-110015/472/2007-IA.II(M) dated 10.12.2008 and revised EC dated 20.05.2010 and now project proponent have applied for expansion under 7(ii) of EIA Notification 2006 in line with the MOEF O.M. dated 19-12-2012.
- ii. The land usage of the project will be as follows:

Pre-mining: Most of the lands were private un-irrigated agriculture land and Govt. barren land

S. No.	Description	Area (Ha.)
1	Agriculture Land	2709.53
2	Waste land	283.42
3	Water bodies including dry channels	189.26
4	Others	41.30
5	Forest Land	Nil
	Total	3223.51

## **Post-mining:**

S. No.	Description	Area (Ha.)
1	Mining/Excavation	2213.35
2	Dumps	
	a) Surface dump in ML Area	499.64
	b) Inside dump (backfilling)	1361.68
	c) Topsoil dump	10.00
3	Facilities	20.20
4	Settling Pond	10.00
5	Green belt	96.96
6	Void	851.67
7	Undisturbed	373.66
	Total	3223.51

- iii. The total geological reserve is 150.40 MT. The mineable reserve is 129.79 MT, extractable reserve is 129.79 MT. The per cent of extraction would be 86.3%.
- iv. The coal grades is Lignite with average CV of 2692 K cal/kg having stripping ratio of 1:12.48 (ton: m³) of coal. The average Gradient is almost flat, occasionally undulating. There will be eleven (Three Lignite horizons. Top Horizon contains 5 lignite seams, Middle horizon consists of 4 lignite seams and Bottom horizon consists of 3 lignite seams. None of the seams exhibit spatial distribution through the entire area) seams with thickness ranging from 0.50 to 6.0 m.
- v. The total estimated water requirement is 1680 m3/d. The level of ground water is ~ 80m bgl.
- vi. The Method of mining would be Opencast mining with shovel-dumper & Surface miner.
- vii. There are Four OB dumps and three crown dumps. Namely Dump-1: 152.57 ha, Dump-2A: 42.80 ha, Dump-2B: 85.09 ha, Dump-3: 219.18 ha, Crown dump (North): 526.60 ha, Crown dump (Central): 99.88 ha, Crown dump (South): 599.89 ha. The height will be Dump-1, 2A, 2B: 45 m, Dump-3 60 m, Crown Dump (North & Central): 45 m, Crown Dump (South): 60 m with the quantity of total 706.41 mm³ (Dump-1: 53.22 mm³, Dump-2A: 12.00 mm³, Dump-2B: 24.00 mm³, Dump-3:103.76 mm³, Crown dump (North): 197.82 mm³, Crown dump(Central): 53.96 mm³, Crown dump (South): 261.65 mm³). The final mine voids will have an area of 851.67 ha having height of 95 m. There are one internal dumps having an area of One1361.68 ha Height over the back filled area is given above as crown dump mm³ with a quantity of 913.09 mm³. Total quarry

- area 2213.35 ha. Backfilled quarry area of 1361.68 ha shall be reclaimed with plantation A void of 851.67 ha at a depth of 95 m is proposed to be converted into a water body.
- viii. The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.
- ix. The life of mine is 44 years @ 3.0 MTPA and 33 years @ 3.75 MTPA.
- x. **Transportation:** Transportation of coal in pit to head crusher by dumper. Surface to siding by conveyor belt.
- xi. There is no R & R involved. No of PAFs are 774.
- xii. Cost: Total capital cost of the project is Rs. 527 Crore. The cost of production would be Rs. 1112.35 / T. CSR Cost 71.77 Lakh. R&R Cost is as per Govt. of Rajasthan order, land compensation paid to the Khatedars was inclusive of R&R, at an agreed amount of Rs.1.5 lakh per bigha. Environmental Management Cost is Rs. 39.74 lakh.
- xiii. **Approvals:** Ground water clearance obtained on 07-03-2011 & 26-04-2011. The Mine Closure approval obtained on 8 -12-2010. The Mining Plan was approved on 29-01-2008, 3.00 MTPA, Operational from the Ministry of Coal. Board approval on 09-04-2013.
- xiv. **Wildlife issues:** There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- xv. **Forestry issues:** No forest land is involved.
- xvi. Total afforestation plan shall be implemented covering an area of 2213.35 ha at the end of mining where reclaimed external OB dump is 1187.26 Ha and Internal OB Dump 515.84 ha. Green Belt over an area of 96.66 ha. Density of tree plantation 1500 trees/ ha of plants.
- xvii. There are no court cases pending with the project proponent.
- xviii. There is a violation of excess production.
- xix. **Public hearing:** Not applicable as application is under 7(ii) of the EIA Notification 2006.
- xx. Certificate of compliance of earlier EC from MoEF, Regional office, Lucknow has been issued vide their letter no. IV/ENV/R/Mine-445/729/2009/569 dated 09.01.2013.
- xxi. The Board has passed the resolution for enhancement of lignite production capacity from Kapurdi Lignite Mines by 25% from 3.0 MTPA to 3.75 MTPA in accordance with the Office Memorandum dated December 19, 2012 of MOEF.
- xxii. **CSR**: It is proposed to spend Rs. 2.58 Cr. towards CSR activities during the current financial year. The PP stated that it has already spent Rs. 75, 47,981/- so far. The proponent has committed to spend the entire budgeted amount on CSR activities during the current financial year.
- xxiii. **Commissioning of Lignite Handling System (LHS):** The erection and commissioning of Lignite Handling System is in the last phase of completion and it is expected to be in operation by end November, 2013. Pursuant to the commissioning of the LHS, the entire lignite mined from Kapurdi mine is to be transported to the power plant only through the conveyor belt.
- Allocation of space for livestock grazing: Barbed wire fencing has been erected around the active mining area and haul roads so as to prevent any inadvertent entry of people or livestock. Out of the total lease area of 7205.8 Hectare of Kapurdi-Jalipa Block, the ML area of Kapurdi is 3223.5 Hectare. The proponent has fenced off approximately 830 Hectare covering the excavation pit and haul roads in accordance with mining regulations. Another approximately 1237 Hectare contains some semi-permanent structures like workshops, canteens etc. The balance 1158 Hactare is currently available for grazing of the livestock present in the area. During the course of mining, the position of active mining area shall change, but approximately 1100-1200 Hectare of land area

- beyond the fencing around the active mining area shall always remain available for grazing of the livestock throughout the life of the mine against the original Gochar land area of 145 Hectare.
- Management of OB dumps: The OB dump creation & re-utilization are specified under the Mine Closure Plan for Kapurdi mine as approved by Ministry of Coal, Govt. of India. The PP has proposed to re-utilise the OB dumps accordingly. At the end of the mining, the external OB dumps shall also be partly re-handed to reduce the depth of the final void from 120 m to 97 m.
- Issues with regard to Project Affected Families (PAFs): There were 774 no. of Project Affected Families (PAFs) in Kapurdi Lignite Block. During acquisition for the determination of prevailing market rate of the land a high powered Committee was constituted by the Government of Rajasthan on 29.5.2009. The Committee negotiated with the land losers and a compensation of Rs. 1.5 lacs per bigha (excluding compensation for permanent structures) was finally agreed to between the government and the land losers. Approximately Rs. 63,000 per bigha out of this amount was paid towards solatium of R&R benefits. In addition to the above compensation 441 persons from PAF have been provided employment as a CSR initiate in consultation with local committee consisting of representatives of PAFs. Additional employment of the nominees of PAFs may also be considered if demanded by the Committee.
- xxvii. **Habitat Restoration Plan:** A detailed Habitat Restoration Plan has been prepared by Central Arid Zone Research Institute. Jodhpur after thorough study of flora in Kapurdi-Jalipa Lignite block area and the recommendations of the CAZRI report are being implemented in Kapurdi Lignite Block.
- **Reasons for the enhanced production:** In the month of March, 2013, an in-seam fire was detected in the quarry bed of the Kapurdi Lignite mine. In view of the tendency of spontaneous combustibility in lignite, it was decided to excavate and remove all the lignite under fire so as to prevent any propagation of fire in the lignite seams in the area below the super incumbent strata, so that the mine is saved from any major safety hazard. In the course of such removal of lignite-in-fire, the lignite production crossed the stipulated limit of 3 MTPA during the year 2012-13. The PP has now taken adequate safety precautions like limiting the exposure of lignite by leaving a thin layer of OB/clay on the top of the lignite seams to prevent any recurrence of the fire. Thus, the violation of the stipulated mine capacity in the last financial year was solely due to unavoidable safety factors and failure to remove the additional lignite could have led to a major fire disaster in the mine. Therefore, this excess production should not be construed as violation.
  - 3. The Committee observed that the proponent has exceeded the production by 0.5 MTPA in 2012-13. However, the PP has submitted that an in-seam fire was detected in the quarry bed of the Kapurdi Lignite mine. In view of the tendency of spontaneous combustibility in lignite, it was decided to excavate and remove all the lignite under fire so as to prevent any propagation of fire in the lignite seams in the area below the super incumbent strata, so that the mine is saved from any major safety hazard. In the course of such removal of lignite-in-fire, the lignite production crossed the stipulated limit of 3 MTPA during the year 2012-13. Keeping in view the safety of mine due to fire, the Committee did not construe it as actual excess production for commercial purpose and recommended for expansion of the 25% capacity enhancement of 5 MTPA as per the OM dated 19 December, 2012.
  - 4. The proposal was considered in the 71<sup>st</sup> EAC meeting held on 8<sup>th</sup> -9<sup>th</sup> April, 2013 and in 2<sup>nd</sup> EAC meeting held on 3-4 October, 2013 and recommended for granting Environmental Clearance for the expansion. The Ministry of Environment & Forests has examined the application in accordance with the EIA Notification 2006 and under the provisions thereof, hereby accords environmental clearance for the above-mentioned **expansion (under 7(ii) of EIA Notification 2006) of Kapurdi Lignite Open Cast**

Mine project of (expansion from 3 MTPA to 3.75 MTPA in ML area of 3223.5110 ha) of M/s Barmer Lignite Mining Company Ltd., Dist. Barmer, Rajasthan under the provisions of the Environmental Impact Assessment Notification, 2006 and amendments thereto and Circulars issued thereon and subject to the compliance of the following specific conditions, in addition to the specific and general condition.

#### A. Specific Conditions:

- i. The conveyor transport of lignite from mine to the power plant may be commissioned by Nov, 2013.
- ii. The entire lignite mined from Kapurdi mine is to be transported to the power plant only through the conveyor belt.
- iii. The proponent shall develop grazing plan for new livestocks.
- iv. The proponent shall regularly examine and mitigate the health issues in the area particularly with respect to infant mortality.
- v. The PP has made an expenditure of Rs. 75 lakhs towards CSR so far which is much less. The PP was advised to spend Rs. 258 lakhs during 2013-14. The PP has committed to do.
- vi. CSR activities need to be got done annually through a reputed institute and details be put up in the company's website
- vii. The Top soil of the OB dumps be used for grasses/plantation.
- viii. The OB dumps be reutilized/re-handled fully. A plan of action be submitted to the MoEF for record.
- ix. Central Arid Zone Research Institute (CAZRI), Jodhpur may be contacted for advice on the issues of Plantation be made in around the ML area in the mining area in consultation with a reputed Institute. A detailed report within in this regard may be submitted to the MoEF for record.
- x. The CSR cost should be Rs 5 per tonnes of Coal produced which should be adjusted as per the annual inflation.
- xi. Proponent was advised to spend the entire budgeted amount on CSR activities during the current financial year.
- xii. The OB dumps shall be re-utilised. At the end of the mining, the external OB dumps shall be re-handled to reduce the depth of the final void from 120 m to 97 m.
- xiii. Additional employment of the nominees of PAFs may also be considered if demanded by the Committee.
- xiv. Recommendations of the CAZRI report shall be implemented in Kapurdi Lignite Block.
- xv. There shall be no overflow of OB into the river and into the agricultural fields and massive plantation of native species shall be taken up in the area between the river and the project.
- xvi. OB shall be stacked at two earmarked external OB dumpsite(s) only. The ultimate slope of the dump shall not exceed 28°. Monitoring and management of existing reclaimed dumpsites shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and the concerned Regional Office on yearly basis.
- xvii. Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilised for watering the mine area, roads, green belt development, etc. The drains shall be regularly desilted and maintained properly. Garland drains (size, gradient and length) and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.

- xviii. Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.
- xix. Crushers at the CHP of adequate capacity for the expansion project shall be operated with high efficiency bag filters, water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points, etc.
- xx. Drills shall be wet operated.
- xxi. The project authorities shall undertake regular repairing and tarring of roads used for mineral transportation. A 3-tier green belt comprising of a mix of native species shall be developed all along the major approach roads,
- xxii. Controlled blasting shall be practiced with use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.
- xxiii. A Progressive afforestation plan shall be implemented covering an area of 2213.35 ha at the end of mining, which includes reclaimed external OB dump (1187.26 ha), internal dump (515.84 ha) and green belt (96.66 ha) and in township located outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. Massive plantation shall be carried out in open spaces in and around the mine and a 3-tier avenue plantation along the main approach roads to the mine.
- xxiv. There shall be four OB dumps and three crown dumps viz. Dump-1: 152.57 ha, Dump-2A: 42.80 ha, Dump-2B: 85.09 ha, Dump-3: 219.18 ha, Crown dump (North): 526.60 ha, Crown dump (Central): 99.88 ha, Crown dump (South): 599.89 ha. The height will be: Dump-1, 2A, 2B: 45 m, Dump-3: 60 m, Crown Dump (North & Central): 45 m, Crown Dump (South): 60 m. with the quantity of total 706.41 mm3 (Dump-1: 53.22 mm3, Dump-2A: 12.00 mm3, Dump-2B: 24.00 mm3, Dump-3:103.76 mm3, Crown dump (North): 197.82 mm3, Crown dump(Central): 53.96 mm3, Crown dump (South): 261.65 mm3). The final mine voids will have an area of 851.67 ha having height of 95 m. There will be one internal dump having an area of 1361.68 ha.
- xxv. The maximum height of external OB dump for hard OB will not exceed 90 m and that for soft OB shall not exceed 60 m. The maximum slope of the dump shall not exceed 28 degrees. Monitoring and management of reclaimed dump sites shall continue till the vegetation becomes self- sustaining and compliance status shall be submitted to MoEF and its Regional Office on yearly basis.
- xxvi. The proponent should prepare restoration and reclamation plan for the degraded area. The land be used in a productive and sustainable manner.
- xxvii. Compensatory Ecological & Restoration of waste land, other degraded land and OB dumps in lieu of breaking open the land be carried out.
- xxviii. The mining should be phased out in sustainable manner. No extra over burden dumps are permitted.
- xxix. Of the total quarry area of 2213.35 ha, the backfilled quarry area of 1361.68 ha shall be reclaimed with plantation and a void of 851.67 ha at a depth of 95 m which is proposed to be converted into a water body shall be gently sloped and the upper benches shall be terraced and stabilised with plantation/afforestation by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.
- xxx. No groundwater shall be used for mining operations.
- xxxi. Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected shall be

- submitted to the Ministry of Environment & Forests and tot eh Central Pollution Control Board quarterly within one month of monitoring.
- xxxii. The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource in case monitoring indicates a decline in water table. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- xxxiii. Sewage treatment plant shall be installed in the existing colony. ETP shall also be provided for workshop and CHP wastewater.
- xxxiv. Besides carrying out regular periodic health check-up of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, through an specialised agency /institution within the District/State and the results reported to this Ministry and to DGMS.
- xxxv. Land oustees shall be compensated as per the norms laid out R&R Policy of CIL or the National R&R Policy or R&R Policy of the State Government whichever is higher.
- xxxvi. For monitoring land use pattern and for post mining land use, a time series of land use maps, based on satellite imagery (on a scale of 1: 5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series), and the report submitted to MOEF and its Regional Office in the region.
- xxxvii. A detailed Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests within 6 months of grant of Environmental Clearance.
- xxxviii. The project authorities shall in consultation with the Panchayats of the local villages and administration identify socio-economic and welfare measures under CSR to be carried out over the balance life of the mine.
- xxxix. Corporate Environment Responsibility:
  - a) The Company shall have a well laid down Environment Policy approved by the Board of Directors
  - b) The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
  - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.
  - d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

### **B.** General Conditions:

- i. No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.
- ii. No change in the calendar plan of production for quantum of mineral coal shall be made.
- iii. Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> monitoring. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. In addition, CO and CH4 shall also be monitored within the underground coal mine and records thereof maintained and uploaded on the company website and also submitted to MOEF and its Regional Office in the region.

- iv. Fugitive dust emissions (PM<sub>10</sub> and PM<sub>2.5</sub>) from all the sources shall be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading and unloading) points shall be provided and properly maintained.
- v. Data on ambient air quality (PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>) shall be regularly submitted to the Ministry including its Regional Office at Lucknow and to the State Pollution Control Board and the Central Pollution Control Board once in six months.
- vi. Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.
- vii. Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19<sup>th</sup> May 1993 and 31<sup>st</sup> December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.
- viii. Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.
- ix. Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analysed through a laboratory recognised under EP Rules, 1986.
- Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.
  Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof.
- xi. A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.
- xii. The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office at Lucknow.
- xiii. The Regional Office of this Ministry located at Lucknow shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.
- xiv. A copy of the will be marked to concerned Panchayat/local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.
- xv. State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.
- xvi. The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a>.
- 5. The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report so also during their presentation to the EAC.
- 6. The proponent is required to obtain all necessary clearances/approvals that may be required before the start of the project.
- 7. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

- 8. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environment (Protection) Act, 1986.
- 9. The above conditions will be enforced *inter-alia*, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules. The proponent shall ensure to undertake and provide for the costs incurred for taking up remedial measures in case of soil contamination, contamination of groundwater and surface water, and occupational and other diseases due to the mining operations.

(Dr. Manoranjan Hota) Director

## Copy to:

- 1. Secretary, Ministry of Coal, New Delhi.
- 2. Secretary, Department of Environment & Forests, Government of Rajasthan, Secretariat, Jaipur.
- 3. Chief Conservator of Forests, Regional office (CZ), Ministry of Environment & Forests, Kendriya Bhawan, 5th, floor, Sector H, Aliganj, Lucknow-226024.
- 4. Member Secretary Rajasthan State Pollution Control Board, 4, Institutional Area, Jhalana Doongri, Jaipur
- 5. Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032.
- 6. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
- 7. District Collector, Barmer, Government of Rajasthan.
- 8. Monitoring File 9. Guard File 10. Record File 11. Notice Board

(Dr. Manoranjan Hota) Director