

By Speed Post

No. J-11015/349/2009-IA.II (M)

Government of India
Ministry of Environment and Forests
Impact Assessment Division

Paryavaran Bhavan,
C.G.O. Complex, Lodi Road,
New Delhi-110 003

Dated: 30th September, 2013

To,

The General Manager (Mines-Rowghat),
M/s Steel Authority of India (SAIL),
Room No. 589, Ispat Bhawan,
Bhilai Steel Plant,
Bhilai-49001

Subject: Enhancement of Ore processing/beneficiation capacity from 9.55 million TPA to 14 million TPA in Rajhara Hill by M/s Steel Authority of India Limited (SAIL), located at District Durg, Chhattisgarh (719.60 ha) -Environmental Clearance regarding.

Sir,

This has reference to your letter No. BSP/MHQ/GM(Mines)/2011/864, dated 27.07.2011 and subsequent letters dated 08.05.2012, 11.07.2012, 29.10.2012 and 09.05.2013 on the subject mentioned above. The project was prescribed Terms of Reference (TORs) by the Ministry of Environment and Forests vide letter No. J-11015/349/2009-IA-II (M), dated January 13, 2010 for undertaking detailed EIA study for the purpose of obtaining environment clearance. The proposal for environmental clearance was recommended in the 2nd Meeting of the Reconstituted Expert Appraisal Committee held during December 19th -21st, 2012.

2. The Proposal is for enhancement of Ore Processing Capacity in Rajhara Hill Lease from 9.55 to 14.0 million TPA of Bhilai Steel Plant of M/s Steel Authority of India Limited and is located at District Durg, Chhattisgarh. The co-ordinates of the mine lease area are 20°33'00"- 20°35'00" N and 81°00'45"- 81°07'00" E.

3. The mine lease area is 719.60 ha, out of which Forest area is of 283.60 ha and Non-forest area is 436.00ha. The Forest Clearance for diversion of entire 283.60 ha forest land was granted vide letter no. F.No.8-57/2003-FC, dated 6.04.2004. The Indian Bureau of Mines had approved modified mining scheme / plan on 17.12.2012 for lease area of 719.60 ha. The Lease is renewed up to 31.05.2023. The total area required for setting of the beneficiation plant is 132ha, out of which 107.5ha area is part of Rajhara Hill lease that will be utilized for setting up of loading, unloading and beneficiation plant facilities and remaining 24.5ha is outside the Rajhara Hill which is non-forest land and required for tailing pond.

4. The proposed processing/beneficiation plant comprises of screening plant/fine jigging plant, milling and wet high magnetic separator plant. The tailings generated during beneficiation will be settled in a newly proposed tailing pond. The ore

processing/ beneficiation plant will receive iron ore from Rowghat mine located at a distance of about 95 km, besides the iron ore from Rajhara Hill lease consisting of Dalli and Jharandalli mines. Water requirement for beneficiation plant will be 2,17,440 m³/day, out of which recirculation of water from cone and tailing thickener will be 1,94,400 m³/day i.e. net requirement of water will be 23,040 m³ per day which will be sourced from Reservoir. The Rowghat Iron Ore mine was accorded environmental clearance by the MoEF vide Letter No. J-11015/331/2006-IA-II (M), dated June 4, 2009.

5. No National Park/Wildlife Sanctuary / Tiger Reserve / Elephant Reserve etc. is reported to be located in the core and buffer zone of the proposed processing/beneficiation plant. The Schedule-I species viz. Indian Python, Peacock and Shikra are reported in the Buffer zone. Project Proponent submitted conservation plan and mentioned that an amount of Rs. 150 Lakhs is earmarked towards capital cost and Rs 15 Lakhs towards recurring expense per annum for implementation of conservation plan. The surface water bodies available within 10 km radius of the study area are two reservoirs viz. Jharan dam (or Rajhara dam) and manmade Boirdih Reservoir (at a distance of 6 km towards SW) and two small perennial nallas viz. Jharan nalla and Kusum nalla flow through the Rajhara Town.

6. The Public Hearing was held under the Chairmanship of Shri Dharamveer, Upper District Collector on 05.05.2011 wherein the representative of the Regional Officer, SPCB, Durg, Chhattisgarh was also present.

7. The capital cost of the project is Rs.954.90 Crores and the capital cost for the environment protection measures is proposed as Rs.31.14 Crore. The annual recurring cost towards the environment protection measures as Rs. 2.33 Crore per annum. It is reported by the Project Proponent that there is no court case/litigation is pending for the project or related activity

8. The Ministry of Environment and Forests has examined the application in accordance with the EIA Notification, 2006 and hereby accords environmental clearance under the provisions thereof, to the above mentioned proposal of M/s Steel Authority of India Limited for enhancement of Iron Ore Processing/beneficiation plant from the capacity of 9.55 million TPA to 14.0 million TPA (ROM) of Bhilai Steel Plant located at Dalli-Rajhara range of hills in Tehsil – Dondi, District-Durg, Chattisgarh, subject to implementation of the following conditions and environmental safeguards.

A. Specific Conditions

- (i) No Iron Ore Processing/beneficiation activities will be allowed in forest area for which the Forest Clearance is not available.
- (ii) Environmental clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority, as may be applicable to this project.
- (iii) The project proponent shall obtain Consent to Establish and Consent to Operate from the State Pollution Control Board, Chhattisgarh and effectively implement all the conditions stipulated therein.

- (iv) As part of ambient air quality monitoring during operational phase of the project, the air samples shall also be analysed for their mineralogical composition and records maintained.
- (v) The beneficiated ore shall be transported to railway sidings only through closed conveyor.
- (vi) Mineral handling plant shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
- (vii) Effective safeguard measures such as conditioning of ore with water, regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as around crushing and screening plant, loading and unloading point and transfer points. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- (viii) The project authority shall implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.
- (ix) 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 installing new piezo meters during the mining operation. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office Bhopal, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out.
- (x) The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations. Jharan nalla and Kusum nalla shall be left undisturbed and protected.
- (xi) The project proponent shall regularly monitor the flow rate of the Jharan nalla and Kusum nalla flowing through the mine lease and maintain the records.
- (xii) The reclaimed and rehabilitated area shall be afforested. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional Office located at Bhopal on six monthly basis.
- (xiii) Dimension of the retaining wall at the toe of temporary over burden dumps and OB benches within the mine to check run-off and siltation shall be based on the rain fall data.

- (xiv) Plantation shall be raised in an area of 33.00 Ha. including a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around the higher benches of excavated void to be converted in to water body, 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.
- (xv) Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of SPM and RPM 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 Pollution Control Board in this regard.
- (xvi) Process water discharge and/or any waste water shall be properly treated to meet the prescribed standards before reuse/discharge. The runoff from temporary OB dumps and other surface run off shall be analyzed for iron and in case its concentration is found higher than the permissible limit, the waste water should be treated before discharge/reuse.
- (xvii) The decanted water from the beneficiation plant and slime/tailing pond shall be re-circulated within the mine and there shall be zero discharge from the mine.
- (xviii) Regular monitoring of the flow rate of the springs and perennial nallahs shall be carried out and records maintained.
- (xix) Regular monitoring of water quality, upstream and downstream of Jharan nalla and Kusum nalla shall be carried out and record of monitoring data should be maintained and submitted to Ministry of Environment and Forests, its Regional Office, Bhopal, Central Groundwater Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.
- (xx) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water for the project. Ground water shall not be used for the mining operations.
- (xxi) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director, Central Ground Water Board.
- (xxii) Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral from mine face to the beneficiation plant. The vehicles shall be covered with a tarpaulin and shall not be overloaded.
- (xxiii) Sewage treatment plant shall be installed for the colony. ETP shall also be provided for workshop and wastewater generated during mining operation.
- (xxiv) Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use

pattern and report submitted to Ministry of Environment and Forests and its Regional Office, Bhopal.

- (xxv) Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.
- (xxvi) Implementation of Action plan on issues raised during Public Hearing.
- (xxvii) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.

B. General Conditions

- (i) No change in Iron Ore Processing/Beneficiation technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.
- (ii) No change in the calendar plan including Processing/Beneficiation of mineral iron ore and waste should be made.
- (iii) At least four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10 micron i.e., PM₁₀) and NO_x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board. The data so recorded 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.
- (iv) 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.
- (v) There will be zero waste water discharge from the plant.
- (vi) 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.
- (vii) 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.
- (viii) 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.
- (ix) 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 located at Bhopal.

- (x) 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.
- (xi) 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.
- (xii) The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment and Forests, its Regional Office Bhopal, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board. The proponent shall upload the status of compliance of the environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry of Environment and Forests, Bhopal, the respective Zonal Officer of Central Pollution Control Board and the State Pollution Control Board.
- (xiii) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
- (xiv) The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and the Collector's office/ Tehsildar's Office for 30 days.
- (xv) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Office of the Ministry of Environment and Forests, Bhopal by e-mail.
- (xvi) The project authorities should advertise at least in two local newspapers of the District or State in which the project is located and 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 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 also at web site of the Ministry of Environment and Forests at <http://envfor.nic.in> and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bhopal.

9. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

10. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

11. 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 made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Chhattisgarh and any other Court of Law relating to the subject matter.

12. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.


(Dr. Saroj)
Director

Copy to:

- (i) **The Secretary**, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
- (ii) **The Secretary**, Department of Environment, Government of Chhattisgarh, Secretariat, Raipur
- (iii) **The Secretary**, Department of Mines, Government of Chhattisgarh, Secretariat, Raipur
- (iv) **The Secretary**, Department of Forests, Government of Chhattisgarh, Secretariat, Raipur
- (v) **The Principal Chief Conservator of Forests**, Chief Wildlife Warden, Government of Chhattisgarh, Raipur.
- (vi) **The Chief Conservator of Forests**, Ministry of Environment & Forests, Regional Office (CZ), Bhopal.
- (vii) **The Chairman**, Chhattisgarh Environment Conservation Board. Raipur
- (viii) **The Member Secretary**, Chhattisgarh Environment Conservation Board (CECB), Chhattisgarh Housing Board Colony, Commercial Complex, Kabir Nagar, Raipur - 492 001, Chhattisgarh
- (ix) **The Member Secretary**, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi - 110 001
- (x) **The Controller General**, Indian Bureau of Mines, Indira Bhawan, Civil Lines, Nagpur - 440001
- (xi) **The District Collector**, Durg District, State of Chhattisgarh.
- (xii) **Guard File**
- (xiii) **MoEF Website**


(Dr. Saroj)
Director