

SUMMARY EIA REPORT

(Executive Summary)

(As Per EIA Notification No. S.O. 1533(E) dated 14th Sept. 2006)

Submission to

Maharashtra Pollution Control Board

GOVT. OF MAHARASHTRA
FOR CONDUCT OF PUBLIC HEARING

OF

DHOBITOLA IRON ORE MINING PROJECT

Village: Dhobitola, Tehsil – Amgaon, District Gondia, Maharashtra
(Project Area 2.61 Ha, Peak Production Capacity = 7,500 Tonnes/Annum)
(Project Category 'B1')

Project Proponent

Jayaswal Neco Industries Ltd.

F-8, MIDC Industrial Area, Hingna Road, Nagpur – 440 016
Maharashtra



EIA Consultant

Srushti Seva Private Ltd.

NABET Accredited ; EIA Consultant Organization
Certificate No. NABET/EIA/1720/RA0105 Valid till 15/05/2020
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EXECUTIVE SUMMARY

1. PROJECT DESCRIPTION

Dhobitola Iron Ore Mine of M/s Jayaswal Neco Industries Limited (JNIL) is operating Iron Ore mine located at Village - Dhobitola, Tehsil - Amgaon of Gondia District in Maharashtra with an annual production capacity of 2500 Tonnes/Annum. It is proposed to increase production of Iron Ore from existing 2500 TPA to 7,500 TPA from the allocated ML area of 2.61 Ha in order to cater the overgrowing need for Iron ore in the market. The proposed production will be achieved by developing this mine by semi-mechanized opencast method.

As per the provisions, the mine had already obtained Environmental Clearance from MoEF for the production of 2500 TPA. Since, it is proposed to increase the production of Iron Ore; an application for obtaining Environmental Clearance under EIA, Notification 2006 has been made to MoEF. Accordingly, the project was appraised by State Level Expert Appraisal Committee-1 (SEAC-1) during its 150th meeting held on 03-05-2018. After the appraisal of the proposed expansion Terms of Reference (TOR) for undertaking EIA study has been prescribed by SEAC, Mumbai. The present EIA/EMP report is based on this TOR.

Location : The M.L. area over 2.61 hectares is covered within the Survey of India Toposheet No. 64 C/7 on a scale of 1:50,000 and is bounded by the latitude $21^{\circ} 19' 30.61''\text{N}$ to $21^{\circ} 19' 40.77''\text{N}$ and Longitude $80^{\circ} 17' 36.49''\text{E}$ to $80^{\circ} 17' 46.31''\text{E}$.

Accessibility - The area can be approached from District Headquarter Gondia towards Amgaon. Near Thana Village there is a diversion towards right on this road located at about 17 km away from Gondia. The area is 4 km away from Thana village and is connected by all weather tar road. The nearest Railway station is Amgaon which is about 15 km. The mine is located about 150 km away from

Siltara Steel Plant of the Company at Raipur. The nearest rail head for the area is Amgaon at a distance of about 15 kms.

Landuse : The proposed production will be achieved from the 2.61 Ha mining lease. No additional land is required.

Geological Reserves and Production : The Gross Geological Reserves of Dhobitola Mine are 5,50,594 Tonnes, the Blocked Reserves are 2,83,489 Tonnes and the Mineable Reserves are 2,67,105 Tonnes. The envisaged production in the Conceptual Period shall be 7500 Tones/Annum. The mining capacity shall be enhanced to 7500 Tonnes/Annum after grant of the fresh Environment Clearance for the enhanced capacity. The envisaged life of mine is 34 years.

Mining Method: The mining will be 'open cast' method of mining. Extraction of ore and waste material shall be carried out using Excavator of 1 Cum capacity and use of Rock Breaker where ever hard rock is encountered. and production of Iron ore is by manual means. Lifting of ore to surface by trucks, sorting and sizing of ore would be carried out manually.

Blasting- The Project does not envisage use of any explosives as drilling & blasting is not involved in the mining process.

Transport of Mineral : The ROM Iron Ore shall be transported to the Integrated Steel Plant of the Company located in Siltara Growth Centre near Raipur in Chhattisgarh by trucks.

Waste Generation and Management: As indicated in the Mining Plan, there will not be any generation of top soil / overburden during the proposal period of 2018-19 to 2022-23. However, about 6855 Cum waste is expected to be generated during Conceptual Period.

Drainage: The drainage of the study area is controlled by Bagh River which is a tributary of Wainganga River. Mining lease area is devoid of drainage network.

Ground water: The proposed excavations are not going to touch the ground water table. Thus, there will not be any contamination of the underground water because of this mining. The water requirement for the mine will be met from the bore well / dug well. There will be no discharge of waste water from the mine.

Water Requirement : The Water Requirement of the Project is estimated to be 6 Cum/Day. Out of this, 4 Cum/Day of the water is required Dust Suppression and Plantation and the balance 2 Cum/Day for drinking/domestic purpose. Necessary permission from CGWB has been obtained by the Company.

Employment Potential : 44 labours will be required for this mine. It is proposed to deploy local manpower meeting the eligibility criteria required for the job under consideration. Resuming of industrial activity like mining will benefit people residing in the nearby villages within the buffer zone by direct and indirect employment opportunities. People will also be beneficiaries for the facilities developed due to mining activity.

2. DESCRIPTION OF THE ENVIRONMENT

The total project area (2.61 Ha) of the Dhobitola Iron Ore mine is considered as Core Zone while the 10 Km surrounding area of core zone is considered as Buffer Zone. Baseline environmental data was collected for all the components of environment like meteorology, air, water, noise, soil, geology, hydrogeology, flora-fauna, demographic and socio-economics, industries, places of archeological and historical importance etc. Standard guidelines prescribed by Ministry of Environment & Forests and Central Pollution Control Board were used for this study. The EIA report incorporates the baseline data generated through primary surveys for three months during October 2018 to December 2018 representing post monsoon season.

Landuse of the Buffer Zone: As per census the total area estimated within 10 km radius of buffer zone (study area) around mine was 31400 Ha. The area under forest is reported to be 22.5% followed by area under cultivation/agricultural 43.7% (irrigated 18.2% and un-irrigated 25.5 %). The area under culturable waste land was 5.4% and area not available for cultivation was 6.1%.

Water Quality: Total two surface & three ground water sampling stations were monitored in the study area. The analysis indicates that almost all parameters are within the prescribed limit.

Air Quality: The air monitoring was carried at out 6 stations for 13 continuous weeks beginning from October 2018 and December 2018 as per norms stipulated by the Central Pollution Control Board. To assess the baseline ambient quality eight air quality monitoring location were selected on the basis of wind direction and other meteorological parameters in core and buffer zone area.

The PM₁₀ PM_{2.5} SO₂, NO_x values for all 6 stations were below.

- **Particulate Matter₁₀:** The 24 Hourly concentration of PM₁₀ reported during the survey ranged from 31.5 to 72 ug/m³. This is lower than the NAAQ permissible level of 100 ug/m³.
- **Particulate Matter_{2.5}:** The 24 Hourly concentration of PM_{2.5} reported during the survey ranged from 15.2 to 33.4 ug/m³. This is lower than than the NAAQ permissible level of 60 ug/m³.
- **SO₂:** The 24 Hourly concentration of SO₂ reported during the survey ranged from 7.6 to 22.5 ug/m³. This is lower than than the NAAQ permissible level of 80 ug/m³.
- **NO_x:** The 24 Hourly concentration of NO_x reported during the survey ranged from 9.8 to 29.6 ug/m³. This is lower than the NAAQ permissible level of 80 ug/m³.

Noise Levels: A noise survey for baseline levels of noise indicates that noise levels are in the range of 36.9 - 50.8 dB(A) at 6 studied stations. These are well within prescribed limit for residential area.

Soil Quality: Soil samples were collected at 3 selected locations in the study area to assess the existing soil conditions around the mine. Overall soils are moderately suitable for cultivation of arable crops and have moderate fertility.

Biological Environment: The core and buffer zones include the village settlements with their cultivated fields, forest areas as well as vast areas reduced to wasteland. The detailed inventory of floral and faunal assemblage of the core and buffer zone has been prepared. The details of flora and fauna are provided in EIA/EMP. There are no ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the buffer zone.

Human Settlement and Demography: The area selected for the study constitutes 74 inhabited villages. The population is distributed among 21,864 households in the study area. The inhabited villages have a population of 1,00,352 comprising of 49,899 males and 50,453 females. The number of females per 1000 males is 1011. The overall literacy in the villages of the study area has 78.39%.

3. PROPOSED SOCIAL RESPONSIBILITY MEASURES:

A systematic approach for the implementation of the peripheral area development in selected villages in the buffer zone starting from the nearest village will be drawn up with the help of local community based organization & in consultation with the villagers. Assistance in the field of health and sanitation, environment conservation, water conservation, literacy, self help groups, development of

infrastructure. A budgetary provision of Rs 5 lakhs per annum as annual recurring expenses is proposed on this account.

4. ENVIRONMENTAL MONITORING PROGRAMME

- JNIL proposes an Environment Cell to review, implement, supervise and monitor the environmental related issues. As regards to air quality monitoring two continuous ambient air monitoring stations will be installed one in the core zone and one in the buffer zone. The monitoring of water quality, noise level, groundwater level will be carried out and the records will be submitted to the competent authorities besides uploading the same on JNIL website.
- A separate budgetary allocation of the funds shall be made for the Environmental Protection Measures. The Capital Budget for Environmental Protection Measure is estimated to be Rs. 5.00 Lakhs and the Recurring Budget is estimated to be Rs. 3.50 Lakhs.

5. ADDITIONAL STUDIES

Risk Assessment & Disaster Management Plan: In any mining project, work safety is taken care of as per provisions in the Mines Act, Rules framed there under. Inundation, fly rocks during blasting operations, risks associated with handling and use of explosives, during operations of equipment and movement of vehicles has been dealt. The risk management plan as per the directives of competent authorities will be Implemented strictly.

6. PROJECT BENEFITS

The primary benefits to the Government (State as well as Central) from any mining project are generation of additional revenues in terms of receipt of royalties and other statutory levies against the mineral mined. The secondary benefits to the Government are socio-political benefits in terms of enhanced economic activities and employment opportunities in the Project Area resulting into overall development of the area.

The Dhobitola Project shall have positive impacts in the Project Area and surrounding villages in terms availability of employment opportunities to local youths.

The Project shall offer creation of Secondary & Tertiary Business Opportunities for the local people to some extent in the form of Service Industry resulting in development of ancillary & allied services like Security, Canteen & Mess, Transport, Civil Repair & Maintenance etc.

7. ENVIRONMENTAL MANAGEMENT PLAN

Mitigation Measures for Air Pollution :

- a) Haulage roads will be frequently sprinkled with water for which truck mounted water tankers with sprinkler arrangement have been provided.
- b) Ore will be covered by tarpaulins to prevent spread of dust from it during transportation.
- c) Regular maintenance of vehicles and machineries will be carried out in order to control emissions.
- d) Green belt development will be taken up at various places.
- e) The dust respirators will be provided to all the workers.
- f) Good housekeeping and proper maintenance will be practiced which will help in controlling the pollution.

Mitigation Measures for Water Environment :

The mining project will require continuous supply of water for various purposes during mining, plantation etc. apart from drinking water supply. The main source of water pollution in opencast mining is the surface run-off due to rainfall. There will not be any mine discharge during dry weather seasons. There may be accumulation of rain water during monsoon season, which contains fine silt. This

will be treated in settling tanks of adequate dimensions. The treated water (overflow) will be used for plantation and dust suppression.

Mitigation Measures for Noise & Vibration

- Noise is best abated at source by choosing machinery and equipment suitably, by proper mounting of equipment & ventilation systems and by providing noise insulating enclosures or padding where practicable.
- Proper maintenance of vehicles will be done which keeps the noise level within limits.
- At the boundary of mining lease green belt of local trees will be planted which will act as acoustic barriers. Planting of bushy trees of rich canopy in and around the mine area to intercept noise transmission. A 7.5 m wide belt of trees of different heights will be useful to act as noise attenuator in the mining areas.
- Delay detonators millisecond delay interval will be used. For keeping the vibrations minimum.

Land Reclamation Measures: The mining will be by opencast method of mining. The ore reserves will be lost long even after the ML period expires, the same will be renewed for further period, hence question of back filling /reclamation does not arise at this stage. However it is proposed to carryout plantation in the non mineralized area on regular basis.

Measures for Minimizing Impact on Fauna

Plantation: It is proposed to select the local tree species with the help of forest department having 5 tier arrangements for implementation all along the mining lease in order to control dispersion of fugitive dust from the mining lease. To enhance the environment proposed afforestation programme will be carried out by planting 50 saplings per year.

The mitigation measures suggested above shall be implemented so as to reduce the impact on environment due to operations of proposed mining activities. In order to facilitate easy implementation, mitigation measures are phased as per the priority implementation. A separate budgetary allocation of the funds is made for the environmental protection measures. The monitoring of the pollution to know the effectiveness of the applied control measures will be carried out at regular interval. A budgetary provision of Rs. 5 lakhs as annual recurring expenditure is made in the management.

AN EPILOGUE

In compliance with the environmental procedure the environmental clearance application is made. Necessary scientific studies have been undertaken as per the guidelines set by the Ministry of Environment and Forests (MoEF). The suggestions/recommendations of all the experts, competent authorities, and government officials are being sought for the impacts of the proposed project. Views and guidance of the local residents, community based organizations, social organizations are extremely important in order to devise a full proof Environment Management Plan for the proposed mining project and also mitigate the damages caused due to the project. Allocation of necessary funds, manpower and machinery will be made to for the protection and conservation of all the components of environment. It is ensured that all mandatory clearances will be sought from respective competent authorities before operating the proposed **Dhobitola Iron Ore Mine (2.61Ha)**. We at **M/s Jayaswal Neco Industries Limited (JNIL)** are committed to implement the suggestions for the improvement of the environment and assure that every attempt will be made for the conservation and protection of the natural resources to the maximum extent. It is requested to support the project by providing you valuable concent.