



LLOYDS METALS

**SUSTAINABLE
DEVELOPMENT
FRAMEWORK**



REPORT **SUSTAINABLE DEVELOPMENT FRAMEWORK**

LLOYDS METALS & ENERGY LTD.

Surjagarh Iron Ore Mines



Info:

Surjagarh Iron Ore Mine of M/s. Lloyds Metals & Energy Limited spreads over an extent of 348.09Ha is located in Surjagarh village, Etapalli tehsil, Gadchirolli district of Maharashtra state. The lease deed was executed on 03.05.2007. Further as per the MMDR Amendment Act, 2015, Supplementary lease deed executed on 03.12.2021 and the lease validity is extended up to 02.05.2057. The entire mining lease area falls in Bhamragarh Reserve Forest.

Statutory Clearances

The project has obtained different statutory clearances from different govt. authorities and is in operative status. It's a fully mechanized opencast iron ore mines.

Production Capacity

10.0 Million TPA Iron Ore

S.No	Name	Authority	Status	Date of issue
1	Forest Clearance over 374.90 Ha	MoEF	Granted	23.03.2007
2	Environmental Clearance for 3.0 MTPA production	MoEF	Granted	29.05.2006
3	Consent to Operate for 3.0 MTPA	MPCB	Obtained	02.11.2021
4	Review of Mining Plan for 10 MTPA production	IBM	Approved	28.03.2022
5	Grant of permission (NOC) for groundwater drawl	CGWA	Approved	21.03.2022

Introduction:

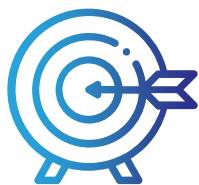
- Lloyds Metals and Energy Ltd is operating a Sponge Plant in Ghugus for the present iron ore requirement is 0.583 MTPA. Further the expansion of this plant is in progress where the additional ore requirement is 0.648 MTPA. Thus the total requirement is 1.231 MTPA. Besides at the proposed Konsari project the Company is proposing 0.20 MTPA beneficiation plant, 0.458 MTPA sponge plant, 2.4 MTPA pellet plant, Installation of 4X10T Induction Furnace for production of 105600 TPA of M S Billets. The iron ore requirement is 4.853 MTPA(B). Thus the total iron ore requirement is about 6.084 MTPA for own consumption

- In the region various Steel and sponge plants are in operation like Lloyds Metals, JSW Steel Ltd, Sunflag steel, Shree Sidhhabali Ispat, Uttam Galwa, Chamman metallic Pvt Ltd, Gopani Iron& power Ltd, Rajori Steel Pvt Ltd, B.S. Ispat, Grace, Top worth to name a few.
- As far as the importance to our country is concerned, this project will enable to achieve increased outputs of steel and other related products which in turn will help to increase GDP growth of the nation considerably. As the Government is investing more in the infrastructural sectors, more and more infrastructural projects are being encouraged to be put up by private players, towards fulfillment of such Government targets, this project will contribute its own share.
- As far the regional scenario is concerned, the interior area will get a great uplift in terms of social condition betterment, industrial growth and local area development. The State Government will also be benefited financially through receipt of royalties, cess, duties, GST, etc, due to project operations. It can be concluded that on an overall basis, sustained industrial growth of the State can be realized to full measure by the present proposal.

SDF Framework

In a bid to ensure minimal impact of Iron ore mining on the environment and human settlement, the Union Ministry for Mines has implemented a “Star Rating” system for mining leases to promote sustainable development practices, which includes addressing the social impact of resettlement and rehabilitation and key information’s of the mining activity like mines basic information’s, environmental safe guard measures, CSR activities as a whole. A Star Rating program is implemented to mining leases for the efforts and initiatives taken for implementation of the Sustainable Development Framework (SDF).

SDF provides guidance to mining companies to improve the performance not only with regard to environmental and social aspects, but also provides a common benchmark against the operations which can be evaluated in terms of comparative performance on sustainable development norms.



Objective

SDF is planned and implemented in the mines through effective steps & further following Star Rating guidelines



Process

Respective dept. are involved towards its achievement and to sustain the Star Rating System.

Inline to the said guidelines of the Govt., the company has constituted a Sustainable Development Unit (SDU) under SDF. The team comprises of different key personals of the organization involving Technical, Financial, CSR, HRD, Environment depts.

- The SDU is headed by Mr. Rajesh Gupta, Director, who is functional head of the of the organization having experience of more than 31 years in different strategic business and industrials expertise.
- Mr. Jiwan Hedau, Mines Manger, who is technical head of Mining in the organization having experience of more than 28 years in the open cast mining field.
- Mr. P. Ayanar, GM (Geology & Planning) having experience of more than 16 years, expertise in the geo-technical expertise in different mineral fields.
- Mr. Mousin Khan (DGM-Safety), having expertise in safety and mining work with more than 22 years of experience.
- Mr. Vinod, Manager-Finance, having more than 17 years' experience in Finance and Accounting.
- Mr. Amitav Mallick – GM (Environment), expertise in the field of EIA-EMP preparation, Compliance Management etc. with more than 16 Years of experience.
- Mr. Devnath Samal, (Manager-Electrical), having experience of more than 13 years with hands on skill to repair, maintenance of electrical works and sub-station functions.
- Mr. Ganesh Sethy, Sr. General Manager-HR having more than 33 years of expertise in Human Resources, Industrial Relation and CSR functions in different industries and mining sectors.

The Company has made expenses of Rs. 5949 lakhs towards SDF implementation purposes. The project has implemented the funds under different CSR initiatives, Environment protection and other social welfare activities of the area during the reporting period. Company adheres to the environment policies as subscribed there under with 100 % statutory clearance and compliances.

ENVIRONMENT MANAGEMENT PROGRAM:

The key features under environment management program are as follows;

1. WATER ENVIRONMENT

- **Mines runoff management**
 - The mines runoff water is not allowed for direct discharge from mine lease area. Hence, the entire generation of mines runoff water (during monsoon period) is collected to the bottom of the mines area, check weirs and after treatment process the final water is allowed to discharge.
 - However, the entire mine area and check dams/check weirs connectivity is properly made by proper drainage pattern.
 - Apart from this, there is also no water course and / or water resources are being obstructed due to our mining operation.
 - To ensure the same project has under taken runoff management study and prepared site specific runoff management plan. Under the site specific runoff management plant, project has under taken various mitigate measures in and around the mine lease area.

- **Sewage Treatment & Effluent Treatment Management:**
 - The project has provided a STP in the mines employee's camp for treatment and reuse of the waste domestic water from Kitchen, toilet and etc.
 - The treated water is used for plantation and dust suppression activities.
 - ETP cum Oil & Grease separation pit is also planned at mines work shop for the treatment of waste water from water service of equipment.
 - The existing ETP is having physical separation of oil and grease by oil trapping system and silt sedimentation pit.
 - The both STP and ETP final discharge water is being monitored on fortnightly once to ensure the final discharge water in line to approved CTO and record maintained for the same.

2. AIR POLLUTION CONTROL SYSTEM

- The project has implemented different type of dust suppression system to arrest the air pollution from the source level in and around the mines premises.
- 600 M length fixed type water sprinklers are implemented in mines permanent haul roads and dispatch roads.
- Mines benches, temporary haul roads and other processing areas dust generation is suppressed by use of mobile water tankers. In this regard project has engaged 3 x 12KL, 6 x 16 KL capacity mobile water tankers, which is inbuilt with high pressure hydraulic sprinkling system.
- Haulage roads are being maintained with grader and water sprinkling to avoid any sort of ruts and potholes.

- Water Sprinkling System for haul road dust suppression with the help of water tankers and fixed sprinkling system
- Effective dry fog system is implemented in all the crusher and screen plants.
- To avoid the flow of air born dust from convey belt movement the conveyor belts of crusher and screen Plants are covered with hoods.

3. SOLID WASTE MANAGEMENT

- Dump Preparation: Proper terracing, slope level and sub benches are maintained in all mines waste / sub grade dump.
- Retention wall: Bottom of the OB dump and sub grade dump provided / constructed with adequate size of retention wall to avoid the dump failure during monsoon period.
- Drainage Pattern: Proper drainage pattern is provided at bottom of the waste / sub grade dumps and other required area to collect & treat the mines runoff water.
- Coir-mat and plantation: Surface area of the waste /sub grade dump is covered with plantation / coir geo textile application along with local grass seeds to avoid the dump erosion during monsoon period.

4. HAZARDOUS WASTE MANAGEMENT PRACTICE.

- Generation of the hazardous waste like used oil, oil contaminated cotton wastes, Filters, used oil containers etc. from mining operation is being collected properly Stored in an ear mark area under leak proof shed.
- The generated oil Contaminated cotton waste is being compacted into small packages and being Disposed as per the guidelines.

- Apart from that, the used oils are being stored in an earmarked area and being disposed to CPCB/SPCB authorized re-processors along with filter and filter materials on regular intervals.

5. Environmental Monitoring

- Different parameters are analysed i.e. PM-10, PM 2.5, SO₂, NO_x, CO, Fugitive dust, Ambient Noise, Ground Water level, meteorological data's are analyzed.
- AIR: The mines is having number of Ambient Air Quality Monitoring station for both Core Zone & Buffer zone.
- The monitoring locations are established based on the metrological data, topographical features and environmentally and ecologically Sensitive targets and frequency of monitoring are undertaken in consultation with the Maharashtra Pollution Control Board.
- The reputation of the monitoring is followed weekly twice in all stations.
- NOISE: Noise monitoring program is carried out for both ambient & Work zone areas. The Monitoring frequency is maintained fortnightly basis in day and night times.
- Regular water quality monitoring and testing of the physical, chemical and biological parameters of the water and waste water, AAQ, Soil, Noise etc.

6. DISPLAY BOARD:

- The Project has placed an electronic display board in front of the mines entry gate and displaying all the critical parameters periodically & also uploading in the company website.

Environmental Safeguard Measures Photos

Photo #: Fixed Sprinkling System for haul road dust suppression



Hydraulic mobile water sprinkling



Mist cannon for dust suppression in mineral storage & dust prone areas



Photo : CFDS in mineral handling Plants & dust extraction system in Crusher Plant

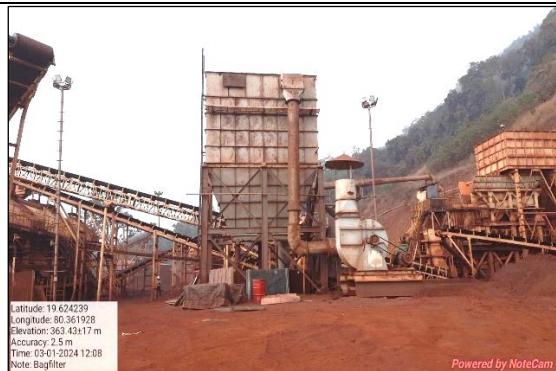


Photo #: Wheel wash system installtiona at exit gate of the Mines



Photo #: Roof top rain water harvesting structre for Office and Hospital Buidlings



Photo #: 30 Bedded Multi speciality Hospital at Hedri Village



Photo #: Running of Electrical Vehicles into mines operations – Loader & dumpers



Photo #: Electronic display board in front gate of mines



Photo #: Check dam cum harvesting ponds for treatment of mines runoff water



Photo #: ETP cum oil & grease separation unit installed for treatment of workshop effluents



Photo #: Provision of gabion box type & RCC retaining wall at the toe of the dumps

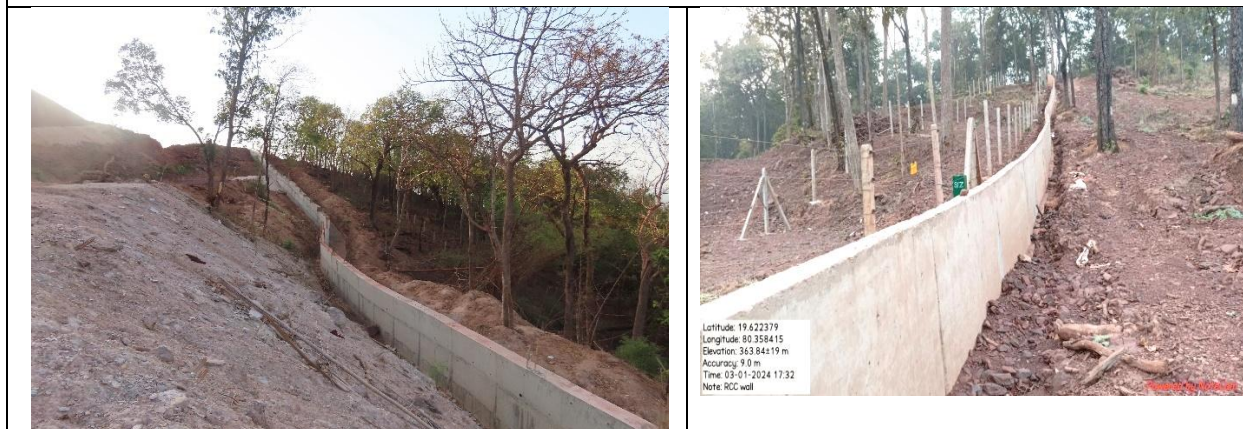
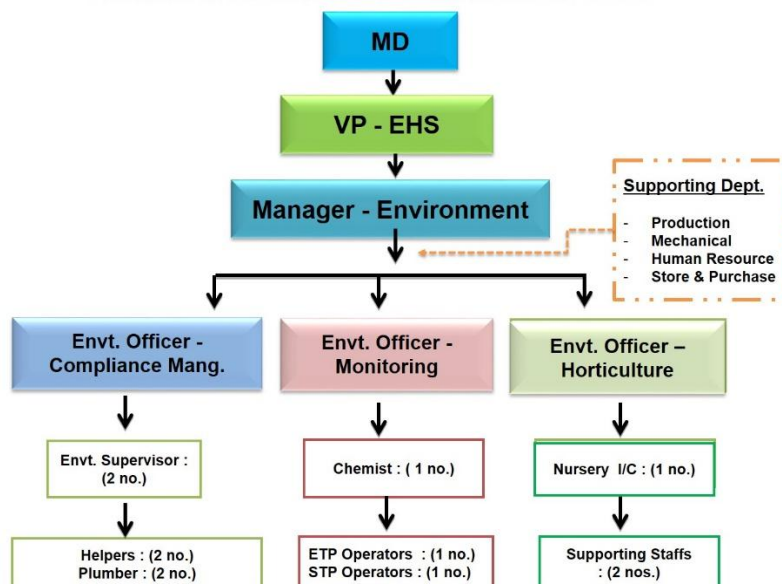


Photo #: Dump slope stabilization with the application of coir mat & grass seeds



Surjagarh Iron Ore Mines, Lloyds Metals & Energy Ltd.
ORGANIZATION STRUCTURE: ENVIRONMENT CELL



CORPORATE SOCIAL RESPONSIBILITY:

The key landscapes under **Corporate Social Responsibility** are as follows;

7. Local Employment

- About 2500 persons engaged in the project.
- Priority is given to the technical qualified persons and they are engaged in mines works
- Women employment is given the priority and also they have been imparted simulation training to become LMV / HMT operators
- For local conveyance, bus facility is provided to them from office to their door steps

8. Skill Development

- 13 Local girls completed training at Allapalli for Light Motor Vehicle and Volvo training through simulator in Tata Nagar & further training in Odisha and engaged as HMT operators in mines.
- We propose to select youth from the local villages and impart training to them as Tipper & HMT operators for our mines itself.
- Established a "Skill Development Centre" near Etapali.

9. Drinking water facility

- 15 numbers of bore wells are already constructed in surrounding villages
- 2 nos. of RO machine is also provided in Etapali & Hedri
- 6nos. Bore well with over head tank provided in different village
- Free distribution of blanket to local villagers
- Distributed torch lights to the local people

10. Infrastructure

- Total 51 kms road construction work completed from Allapalli to Choke Wada, Etapali which was awarded by PWD.

- Augmentation of existing narrow road from Etapalli to Hedri – 20 kms is completed
- Repaired the Bande village road
- High Mast Light provided in villages – Hedri, Aldandi, Parsalgundi.
- One (1) BSNL tower established for ease of communication for the local villagers

11. Health and Hygiene & COVID Care facility

- 30 bedded hospital established at village Hedri
- Facilities like Doctors, ambulances, Oxygen Plants having 2 tons capacity, Pharmacy, assistant staffs.
- Distributed free medicines in local Health camps
- 20 bedded COVID Care Centre provided at Etapali
- Provided COVID kits and free testing facilities to the nearby villagers with sanitary kits

12. Education

- Supply of school kits i.e. school bags, books, umbrella etc. for tribal children
- Support of financial aids like boundary wall construction, room renovation
- Constructed a English medium CBSE residential school at Hedri for students Std 1 to 12.

13. Security Academy

- Infrastructure developed within 11.5 Acres land at Krishnar.
- Classroom & accommodation facilities provided
- 5 batches of security personnel trained and engaged in road traffic management
- A Sports academy is associated with this which is imparting training on various indoor & outdoor games i.e. Volley Ball, Archery, etc.

CSR Photographs

Different CER Works under NRAP, CRAP and RP and Public Hearing Commitments

1. HEALTH:

30 Bedde Hospital at Hedri & Health Camps



Regular Health Camps



TB Patient Kits Distribution & Awareness program



2. GARMENT UNIT:





3. LOCAL EMPLOYMENT & WOMEN EMPOWERMENT





4. EDUCATION:

Skill development and local youths encouraging them to do mining course at Australia with fully financial support of company





Inaguration of CBSE Medium School at Hedri Village



5. Drinking water facility with over head tanks at different villages



6. Solar light and electrification in villages



7. Road infra and augumentation of village roads



8. APPRENTICE BASED ON JOB / SKILL DEVELOPMENT PROGRAMS



9. DIFFERENT SPORTS ACTIVITY AND ARCHERY ACADEMY @ KRISHNAR





10. CAPACITY BUILDING & SKILL DEVELOPMENT TRAINING PROGRAM



11. PROMOTION OF LOCAL CULTURE & SUPPORT TO VILLAGERS



12. REPAIRING OF COMMUNITY HALL



13. Distribution of Sanitary Napkins to women & Menstrual Hygiene Awareness program



14. ENCOURAGEMENT OF FARMERS FOR VEGETABLE FARMING & EXPOSURE VISIT



15. Training & exposure visit on Polutry Farming



Exposure visit of local Farmers – Vegetable farming



Distribution of Solar Lights and Fans

Flood relief



Distribution of blankets, mosquito nets etc.

