# SIX MONTHLY EC COMPLIANCE REPORT: Apr to Sept, 2022



## SURJAGARH IRON ORE MINES LLOYDS METALS & ENERGY LTD.

LLOYDS METALS & ENERGY LTD.
SURJAGARH IRON ORE MINES
SURJAGARH, ETAPALI, GADCHIROLI, MAHAARASHTRA

http://www.lloyds.in/

## NAME OF THE PROJECT: SURJAGARH IRON ORE MINES LLOYDS METALS & ENERGY LTD.

#### **CLEARANCE LETTER NO. & DATE:**

Ministry's Clearance letter no. J-11015/348/2005.IA (M)dated 29.05.2006 for 3.00 Million TPA Iron Ore Production

PERIOD OF COMPLIANCE REPORT:

April to September, 2022



#### Lloyds Metals and Energy Limited

Regd. Office: Plot No. A 1-2, MIDC Area, Ghugus, Dist. Chandrapur, 442 505, Maharashtra. Tel. 07172 285099 /103/398 Fax 07172 285003.

Corporate Office: , Madhu Estate, A2, 2nd Floor, Pandurang Budhkar Marg, Worli, Mumbai-400 013. Tel.: 022-62918111. Fax No. 022-62918260

CIN: L40300MH1977PLC019594 Website: www.lloyds.in Email: investor@lloyds.in

REF. NO: SIOM/LLOYDS/MOEF&CC/30/2022

**DATE:** 26/11/2022

To

Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change,

Integrated Regional Office, Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur- 440001.

**Subject**: Submission of Environmental Clearance compliances stipulated in

approved EC for iron ore production of 3.0 Million TPA in respect of

Surjagarh Iron Ore Mines of M/s. Lloyds Metal & Energy Ltd.

Reference: 1. Ministry's Clearance letter no. J-11015/348/2005.IA (M)dated 29.05.2006

for 3.00 Million TPA Iron Ore Production.

2. MoEF&CC notification no. 4624 (Published in Gazette of India) Dt.

26.11.2018.

Dear Sir,

With reference to the above cited subject and gazette notification, we are submitting herewith the six monthly EC compliance report **in soft copy by E-mail** i.e. **apccfcentral-ngp-mef@gov.in** and also uploading the same in our company website for 3.00 Million TPA Iron ore production with comprehensive data analysis reports (supporting photographs and monitoring reports) for the period **April**, **2022 to September**, **2022** in respect of Surjagarh Iron Ore Mines of M/s. Lloyds Metal & Energy Ltd.

Thanking you.

Yours faithfully,

For Surjagarh Iron Ore Mines

M/s. Lloyds Metal & Energy Ltd.

**Mines Manager** 

Enclosed: As above & Compliance Copy with detailed analysis report and

supporting photographs and monitoring data.

#### Copy to:

#### 1. The Regional Directorate,

Central Pollution Control Board, Survey No. 110, Dhankude Multi-Purpose Hall, Baner Road, Baner, Pune – 411045 Email – rdpune.cpcb@gov.in

#### 2. The Chairman,

Maharashtra State Pollution Control Board, Kalpataru Point, 3<sup>rd</sup> & 4<sup>th</sup> Floors Sion Mutunga Scheme, Rod no. 6, Opp. Cine Planet, Sion(E), Mumbai-400022 Email - ms@mpcb.gov.in

#### 3. The Regional Director,

Central Ground Water Board, Central Region, N.S. Building, Civil Lines, Nagpur – 440001 Email - rdcr-cgwb@nic.in Compliance Report for the condition in the Environmental Clearance No. J-11015/348/2005.IA (M) dated 29.05.2006 Issued by Ministry of Environment and Forest, New Delhi for Surjagarh (Worria Hill) Iron Ore Mine of Lloyds Metals & Energy Ltd, Etapalli Taluka, / Gadchiroli District of Maharashtra.

#### **Specific Conditions:**

Sr.No	Conditions	Compliance Status
(i)	The mining operations shall not intersect groundwater table. Prior approval of the ministry of Environmental & Forest and Central Ground water authority shall be obtained for mining below water table.	<ul> <li>The present mining operation is restricted to above the ground water table and there is no proposal to intersect the ground water table as per the approved Scheme of Mining.</li> <li>The Project has carried out detailed hydrology study and as per hydrology study report; the ground water table exists at 260 aMSL (pre monsoon) and the ultimate working depth of mines operation will be restricted at 480 aMSL, which is far above the ground water table.</li> </ul>
(ii)	A wildlife management plan clearly showing safeguards and management interventions for the area shall be prepared and got vetted by Wildlife Institute of India and duly implemented in the project. The cost of preparation and implementations of wildlife management plan shall be borne by the proponent and included as project cost.	<ul> <li>The Wildlife Management &amp; Safety Plan is prepared by WII and the same has been approved by the Indian Wildlife Institute, Dehradun vide letter no. WII-EIA(AR) /Gadchiroli-2005 dated 23-10-2006.</li> <li>An amount of Rs. 1,47,03,440/- was approved on recommendation; out of which Rs.53,25,440/- vide DD no.143677 dated 03.07.2007 was deposited in favour of Dy. Conservator of Forests, Bhamragarh Division, Alapally.</li> <li>The Dy. Conservator of forests, Bhamragarh has raised a demand to deposit the balance amount of Rs. 93,78,000/ An amount of Rs.93,78,000/- deposited through RTGS vide UTR no. KKBKR22022101305243957 dated 13.10.2022 in favour of Dy. Conservator of Forests, Bhamragarh to this effect.</li> <li>The project has also implemented different safeguard measures as per approved plan i.e. SMC structures, fire protection measures, Awareness programs etc.</li> </ul>

Sr.No	Conditions	Compliance Status
(iii)	Float ore area shall be completely backfilled concurrently and reclaimed by top soil. Backfilling shall start from 6 <sup>th</sup> year onwards.	<ul> <li>The reclamation in the mines does not arise at this stage, as there is no such exhaustion of mineral as per the approved mining plan duly approved by Indian Bureau of Mines, Gol. Accordingly, there is no such proposal of back filling from 2022-23 to 2026-27.</li> <li>However, the project is implementing the environmental safe guard measures as per the approved Progressive Mine Closure Plan by Indian Bureau of Mines, Government of India.</li> </ul>
(iv)	Use of ripper dozer as an alternate technology to avoid blasting & ground vibrations shall be explored and adopted to the extent possible.	The project has undertaken the technical blasting study by engaging CIMFR, Dhanbad and also obtained the DGMS approval for blasting purposes. The blasting activity is being carried based on the recommendation of the CIMFR and ground vibration results are also monitored for each blasting activity. The report of same enclosed as <b>Annexure # 1.</b>
(v)	Top soil shall be stacked properly with proper slope with adequate measure and should be used for reclamation and rehabilitation of mined out area.	Due to presence of lateritic formation of soil in mines, there is no such generation of top soil. However, the project has collected and kept the topsoil in an ear-marked area with proper stabilization measures so as to preserve its nutrients values. So that it will be used for future land reclamation, plantation, coir mat application purposes etc.
(vi)	There shall be no external overburden dumps. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining Compliance status should be submitted to the ministry of Environment and Forest on six monthly basis.	There is no such proposal of external OB dump. Presently whatever the waste is generated its being stacked inside the mines lease area and proper environmental safeguard measures are being followed with Proper terracing, slope level and sub benches in all mines waste / sub grade dump. Bottom of the sub-grade dumps are provided / constructed with adequate size of retention wall for prevention of wash out of the mines run off. Details of retaining wall &

Sr.No	Conditions	Co	Compliance Status		
			coir mat enclosed as <b>Table # 1 &amp; Photo #1&amp;2</b> .		
(vii)	Catch drains & siltation ponds of appropriate size should be constructed to arrest silt and sediment flow from soil, temporary dumps and mineral dumps. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drain should be regularly desilted particularly after monsoon maintained properly.  Garland drain shall be constructed for mine pit and temporary dumps & sump should be designed keeping 50% safety margin over and above peak sudden rainfall and maximum discharge in the area adjoining the mine site.	A	The project has constructed catch drains and siltation pits at the strategic locations of the mines based on the last 30 years rainfall data and the total mines run off being channelized to the settling pits and check dams constructed at the strategic locations. The project has also constructed garland drains and retaining walls at the desired locations for run off management practices of the mines. The above said structures are also de-silted from time to time. <b>Table # 1 &amp; Photo #3 &amp; 4.</b>		
viii)	Dimension of retaining wall at the toe of dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.	A	The project has constructed 555 M length of retaining wall with gabion box around the dump areas having dimension of W-1M x H-1M to check mines run off and its designed based on the rainfall data. <b>Table # 2 &amp; Photo #2.</b>		
ix)	Plantation shall be raised in an area of 342.29 ha including a green belt of 5.8 ha around area, mineral separation plant, roads etc. by planting the native species in consultations with the local DFO/Agriculture department. The density of the trees should be around 2500 plants per ha.	A A	We are abiding by the said condition and planation over 342.29 ha will be carried at the time of conceptual period of the mines as per approved mining plan.  However, the project has planted 17,600 number of saplings inside ML and safety zone areas along with avenue planation along road sides during 2022-23 (upto Sept, 2022). The plant species are also being selected in consultation with local Forest Officials. Details of Plantation and supporting photos enclosed as <b>Annexure #</b> 2.		
x)	The project authority should implement suitable conservation measures to	<b>&gt;</b>	The project has implemented gabion box retention walls around the dumps, check		

Sr.No	Conditions	Co	mpliance Status
	augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.		weirs and settling ponds at the strategic locations for surface run off management and settling cum harvesting pits for water conservation measures. <b>Table # 2.</b>
xi)	Regular monitoring of ground water level and quality should be carried out by establishing a network of existing well and constructing new piezometers during the mining operations. The monitoring should be carried out four times in a year –Pre monsoon (April-May) Monsoon (August) and winter (January) and the data thus collected may be sent regularly to the MOEF. Central Ground Water Authority and Regional Director Central Ground Water Board.	<b>A</b>	Groundwater quality and water level is being monitored on seasonal basis and the analysis reports are being submitted to the concerned authorities at regular intervals. The project is carrying GW monitoring covering 8 locations i.e. Hedri, Surjagarh, Bande, Karampali, Maveli, Mines Site, Persalgundi, Malanpahad, It's also found that, all the tested parameters are very well within the prescribed norms. <b>Annexure # 3.</b>
xii)	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director, CGWB.	A	Rain water harvesting plan has already been made and the same is being implemented inside the ML area. The project has implemented check dams and settling ponds at the strategic locations for surface run off management cum harvesting ponds for water conservation measures. The project has also planned to implement the roof top rain water harvesting structure for the camp areas.
xiii)	Permission from the competent authority should be obtained for drawl of water from the river.	A	The project has obtained the ground water NOC permission from CGWA, New Delhi for with drawl of 70 KLD of ground water.  Annexure # 4.
xiv)	Suitable embankment of proper dimension should be constructed to protect the area from flood water during rainy season.	A	There is no such occurrence of the flood in this area. However, the project has implemented gabion box retention walls around the dumps, check dams and settling ponds at the strategic locations to protect the area from flood water during rainy season.

Sr.No	Conditions	Compliance Status
xv)	Appropriate mitigative measures should be taken to prevent pollution of Bandia river in consultation with the State Pollution Control Board	➤ We are abiding by the said condition and the project has implemented gabion box retention walls around the dumps, check weirs and settling ponds at the strategic locations for surface run off management and settling cum harvesting pits for water conservation measures & further prevention measures for protection of Bandia River. Details of the management structure in <b>Table #1&amp;2.</b>
xvi)	Vehicular emissions should be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operation and in transportation of mineral. The vehicles should be covered with a tarpaulin and shall not be overloaded.	<ul> <li>Proper maintenance and regular monitoring of each and every vehicle is being carried to meet the air and noise pollution norms. Regularly PUC checks are being carried.</li> <li>The noise quality monitoring is carried on regular basis to ascertain the noise level within the norms.</li> <li>Workers working noise exposure areas are provided with earmuffs and earplugs.</li> <li>Proper enclosures are also installed near the noise generating equipment's.</li> <li>The vehicles transporting Iron ore materials are covered with tarpaulin. PUC certificate of vehicle enclosed as Annexure # 5 &amp; Photo #5.</li> </ul>
xvii)	The project authorities should undertake sample survey to generate data on pre project community health status within a radius of 1 km from proposed mine.	There is no presence of any village within the 1 km radius of the project area. However, the project has undertaken the sample survey of the area to understand the health status of surrounding area.
xviii)	Blasting operation should be carried out only during the day time. Controlled blasting should be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	<ul> <li>The project is carrying the controlled blasting for which DGMS approval obtained by the project proponent. The technical blasting study is also carried by CIMFR, Dhanbad and their recommendation is followed during each blasting activity.</li> <li>Blasting monitoring is being carried on regular basis. Annexure # 6 &amp; Photo #6.</li> </ul>

Sr.No	Conditions	Compliance Status
xix)	Drills should be wet operated or operated with dust extractors.	The drilling operation is being carried out with both dust extractor and water injection system. Presently the project is using excavator mounted drill machine for drilling operation with inbuilt water injection system towards dust suppression purposes. Photo #7.
xx)	Water sprinkling system shall be provided to check fugitive emissions from ancillary operations such as crushing, screening plant etc.,	Dry fog & high pressure water miss sprinkling systems are installed in all crushing and screening units for dust suppression purposes. Dust suppression details in <b>Table # 3</b> & supporting photos as <b>Photo #8.</b>
xxi)	Consent to operate should be obtained from SPCB before starting production from the mine.	<ul> <li>The project has obtained the Consent to operate from Maharashtra Pollution Contro Board (MPCB) for iron ore production of 3.0 Million TPA. Copy enclosed as <b>Annexure</b> #</li> <li>7.</li> </ul>
xxii)	Sewage treatment plant should be installed for the colony. ETP should provided for workshop and mineral separation plant wastewater.	<ul> <li>The project has constructed a STP at its base camp for treatment of domestic waste water Photo #9.</li> <li>The project has installed ETP cum oil 8 grease trap pit inside workshop area for treatment of workshop effluents.</li> </ul>
xxiii)	Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use patterns & report submitted to MOEF and its regional office.	➤ We are abiding by the said condition & the digital processing of the entire lease area using remote sensing technique is carried for the year 2022, copy of same enclosed as <b>Annexure # 8.</b>
xiv)	A final mine closure plan along with the details of the corpus fund should be submitted to the MOEF 5 years in advance of final mine closure plan for approval.	We are abiding by the said condition as per the approved mining plan, we have submitted the bank guarantee of INR 736.20 lakhs towards reclamation and rehabilitation of 147.24 ha of mined out & allied activity areas as a part of the management of the mines closure of the project.

Sr.No	Conditions	Compliance Status	
		➤ However, a detailed mines closure plan will	
		be submitted before 5 years in advance for	
		approval.	

#### **General Conditions**

Sr.No	Conditions	Co	mpli	iance statu	S	
i)	No change in mining technology and	~	We	are carryin	g out the mini	ng operation as
	scope of working should be made		per	the approv	ed Mining plan	as approved by
	without prior approval of the Ministry		IBM	l, Gol with	the deployme	ent of machines
	of Environment and Forest.			•	·	mbinations and
			sort	ing and siz	ing of the Iron	Ore.
ii)	No change in calendar plan including	>			_	lendar plan, the
	excavation, quantum of mineral iron					ral iron ore and
	ore and waste should be made.				<b>J</b> .	d as per the
			app	roved mini	ng plan/schem	e.
			SI.		Approved	Achieved
			No.	Year	Quantity in MTPA	Quantity in MTPA
			1.	2021-22	3.0	2.75
			2.	2020-21	3.0	0.00
			3.	2019-20	3.0	0.0006
iii)	Conservations measures for protection of flora and fauna in the core & buffer zone should be drawn up in consultation with the local forest department.	A	pre app Deh /Ga An on Rs.5 03.0 Cor Ala <sub>[</sub> The	pared by variously by the proved by the prov	WII and the some the Indian Wide letter no 105 dated 23-10 Rs. 1,47,03,440, and ation; outline DD no 15 deposited in 15 Forests, Bhame ervator of forests	-2006. /- was approved

		A	amount of Rs. 93,78,000/ An amount of Rs.93,78,000/- deposited through RTGS vide UTR no. KKBKR22022101305243957 dated 13.10.2022 in favour of Dy. Conservator of Forests, Bhamragarh to this effect.  However, the project has implemented different safeguard measures as per approved plan i.e. SMC structures, fire protection measures, Awareness programs etc.
iv)	Four ambient air quality monitoring stations should be established in the core Zone as well as in the buffer zone for RPM, SPM, SO2, NOx monitoring Locations of the stations should be decided based on the meteorological features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with State Pollution Control Board.	<b>A</b>	The monitoring of AAQ is being done in the core as well as buffer zone of the ML area, there are 2 no. of monitoring station in core zone i.e. Mines Site near main gate, Mines Office & 4 locations in buffer zone of the ML area i.e. Parsalgundi Vil., Mohrali Vil., Malanpahad Vil., Bande Vil., Hedri Vil. The monitoring is being carried out by third party accredited NABL laboratory i.e. Star Analytical, Hyderabad. The monitoring report for the reporting period reveals that the parameters like PM10, PM2.5, SO2, NOx & CO are well within the norm. <b>Annexure # 9.</b> The photo of monitoring station as <b>Photo #10.</b>
v)	Data on ambient air quality should be regularly submitted to the ministry including its regional office located at Bophal and State Pollution Control Board/ Central pollution control Board once in six months.	>	Data on ambient air quality (PM10, PM2.5, SO2, NOx, CO) is being submitted once in six monthly basis to Maharashtra Pollution Control Board & concerned authority located at IR Office, MoEF&CC, Nagpur on regular basis.
vi)	Fugitive dust emissions from all the sources should be controlled regularly, Water spraying arrangement on haul roads loading and unloading and at transfer point should be provided and properly maintained.	_	gitive Dust are being controlled by the owing methods;  Mobile water sprinkling system having water tankers i.e. 3x12 KL & 6x16KL are engaged in the haul road and mines faces towards dust suppression purposes. Time to time maintenance of the same is being carried out.

		A	The project implemented 600 m length of permanent fixed sprinkling system and planned for another length of 2500 M along the mines haul roads, loading and unloading points to suppress the dust generation, for which installation work is under progress. Photo of fixed sprinkling and water tanker sprinkling enclosed as <b>Photo #11.</b> Dry fog system is also implemented in all types of mineral handling plants.
vii)	Measures should be taken for control of noise levels below the 85 dB(A) in the work environment. Workers engaged in operations of HEEMM etc. should be provided with ear plug/muffs.	A	Regular maintenance of HEMM & processing plants is being carried out to minimize the noise level from source. Apart from that, proper PPEs like ear plug, muffles are also provided to employees.  Further, to ensure the noise limit, regular noise monitoring is carried out on regular basis for work zones like crusher plant premises, screen plant premises, ROM loading point, drilling area & work shop.  Regular noise level is being maintained.  Plantation of native species is being developed in phased manner to suppress the noise and dust.  Appropriate personal protective equipment's are provided for the working employees in noise zones. <b>Annexure # 10 &amp; Photo #12.</b>
viii)	Industrial waste should be properly collected, treated so as to confirm to the standards prescribed under GSR 422(E) dated 19 May 1993 and 31st December 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.	A	The project has installed ETP cum oil & grease trap pit inside workshop area for treatment of workshop effluents.  STP is provided at the employee's base camp for treatment of domestic waste water and the treated water is being reused for plantation and dust suppression activities.
ix)	Personnel working in dusty area should wear protective respiratory devices and they should also be provided with adequate training and	A	Workers engaged in mines operations are provided with earplugs/ muffs, besides this acoustic enclosure for all machine operating cabins are provided. It is being monitored by

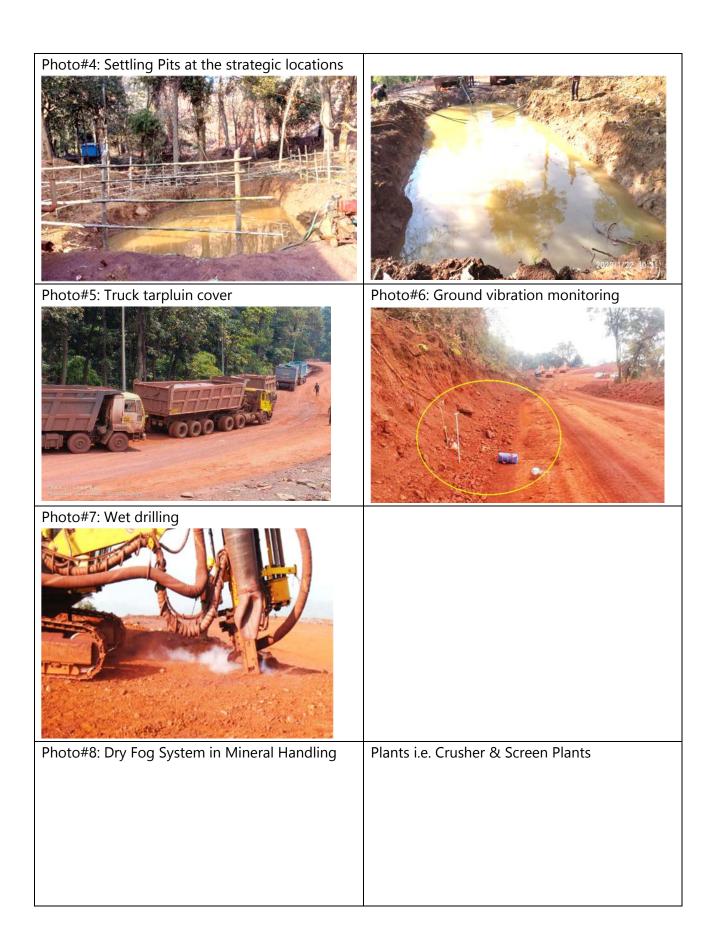
	information on safety and health aspects.  Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions to exposure to dust and take corrective measures, if needed.	>	Noise Level Meter; the results reveals very well within norms.  Initial Medical Examination & Periodical Medical Examination is being carried out to all company & contractor's employees on regular basis. The IME & PME is being carried as per in compliance to Mines Act 1952 & rules 1956 and amendments there to. The project has undertaken IME/PME of 485 persons during the last reporting period 2021-22.
x)	A separate environment 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.	A	We have a separate environment management cell headed by Manager – Environment & other supporting staffs like Compliance Officer, Monitoring Officer, Horticulture etc. & they are under direct control of project head to look after the implementation of the various pollution control measures and other Environment Management System requirements. Annexure # 11.
xi)	The project authority 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.	A A	We are abiding by the said condition by informing to the IRO Office, MoEF&CC located at Nagpur.  In this regard, we have submitted the bank guarantee of INR 736.20 lakhs towards reclamation and rehabilitation of 147.24 ha of mined out & allied activity areas as a part of the management of the mines closure of the project along with Mining Plan at IBM, Gol. However, a detailed final mines closure plan will be submitted before 5 years in advance for approval.
xii)	The Regional office of this Ministry located at Bhopal shall monitor compliances of the stipulated conditions. The project authorities should extend full cooperation to the	<b>A</b>	We are extending all our cooperation during any such inspections by the Authority of IRO Office, MoEF&CC located at Nagpur and continue the same in future also.

xiv)	officers of the Regional office by furnishing the requisite data/information/ monitoring reports.  A copy of clearance letter will be marked to concern Panchayat/ Local NGO, if any from whom and suggestion/ representation has been received while processing the proposal.	It has been complied with intimating the letters to concerned authorities.
xv)	State pollution Control Board should display a copy of the clearance letter at the Regional office, /district Industry Centre & Collectors office/ Teshildars office for 30 days.	> It has been complied by MPCB.
xvi)	The project authorities should advertise at least in two local newspaper widely circulated, one of which shall be in 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 may be also been at web site of the Ministry of Environment and Forest at http://envfor.nic.in and a copy of the same should be forwarded to the regional office this Ministry located at Bhopal	It has been complied and a copy of environmental clearance letter is also made available in the company's website i.e. www.lloyds.in.
xvii)	The Ministry or any competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.	➤ We will abide by the said condition, if any imposed from time to time.
xviii)	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions	> We are abiding by the said condition.

	of Environment (Protection) Act, 1981,
	the Environment (Protection) Act,
	1986 and the Public Liability Insurance
	Act, 1991 along with their amendment
	and rules.

### **PHOTOGRAPHS**







Photo#9: STP for treatment of domestic waste water



Photo#10: AAQ Monitoring Station



Photo#11: Dust suppression by hydraulic tankers inside mines



Fixed type sprinkling system on main haul roads for dust suppression





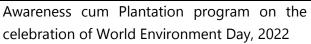
Photo#12: Use of PPEs by employees

Display of environmental data on electronic display board in front of mines gate

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## **TABLES**

Table # 1
Dump Management Measures

			, ,		
SI. No	Description of the dump	Location of the dump	Protections Measures		
1.	Sub grade dump- 1	Near ML Pillar no. 10	<ul> <li>16000 Sq. M coir mat applied on dump slopes</li> <li>220 M length of Gabion box type retention wall</li> <li>340 M length garland drain constructed</li> </ul>		
2.	Sub grade / Fines Near ML Pillar no. 6		<ul> <li>180 M length of Gabion box type retention wall</li> <li>210 M length garland drain constructed</li> </ul>		
3.	Office Area Slopes		<ul> <li>Mines Office: 4600 Sq.M.</li> <li>Time Office: 3200 Sq.M.</li> <li>AoP Area: 4800 Sq.M</li> <li>Other areas: 1000 Sq.M</li> </ul>		

Table # 2
Surface run off Management Measures

SI. No	Particulars	Location	Details	
1.	Check Dam	Near ML Pillar no. 10	- L-46 M x W-1.2M x H-4.6 M	
2.	Retaining Wall with gabion box	<ul><li>Sub grade dump-1</li><li>SG / Fines dump-2</li></ul>	- L-220 M x W-1 M x H-1 M - L-180 M x W-1 M x H-1 M	
		- Near Old Lab Area	- L-80 M x W-1 M x H-1 M	
<i>3.</i>	Retaining Wall	- Near Office Area	- L-50 M x W-1 M x H-1 M	
		- Near Crusher Area	- L-30 M x W-1 M x H-1 M	
4.	Coir Mat Application	<ul> <li>SG Dump-1</li> <li>Mines Office area</li> <li>Times Office Area</li> <li>AoP Area</li> <li>Other area like Lab &amp; Crusher Site</li> </ul>	<ul> <li>16,000 Sq. M</li> <li>4,600 Sq. M</li> <li>3,200 Sq. M</li> <li>4800 Sq. M</li> <li>1000 Sq. M</li> </ul>	

		-	Settling Pond - 7 (near AoP)	-	6400 CUM
5.	Settling cum Harvesting Ponds	-	Settling Pond – 6	-	4200 CUM
		_	(near ML Pillar no. 6) Settling Pond – 8		
			(near ML Pillar no. 8)	-	7200 CUM

Table # 3

Dust Suppression Measures

SL. No.	Description	Unit	Quantity	Remarks	
1	Automatic Fixed Sprinkler	R.M	600	Mines Haul Road from Tines Office to Katni-3 Crusher Area	
Another length of 2500 M fixed sprinkling work unde					
2	Hydraulic pressurized mobile water Tanker	16 KL	3	Mines Benches, Stockyard, plant area, and other	
3	Mobile water tankers	12 KL	6	mines premises including Village Roads	

Table # 4
Surjagarh Iron Ore Mines of M/s. Lloyds Metals & Energy Ltd.

Environmental Expenses: Apr to Sept, 2022							
SI.	Particulars	Capital Cost in Rs.	Recurring Cost in Rs.				
No.							
1	Air Environment						
2	Dry Fog System in Mineral Handling						
	Plants (New Plant)	10,88,550	-				
3	Fixed Sprinkling System for Haul						
	Roads (2500 M)	51,04,396	-				
4	Fixed Sprinling System at Mineral						
	Stackyard	3,03,335					
5	Water Sprinkling by Tankers						
		-	12,00,000				
6	Avenue Plantation (Saplings & its						
	maintenance Cost-17600 nos.)	42,67,650	75,000				
7	Drip Irrigation for Plantation						
		61,748	-				

**Compliance Reporting Period: Apr to Sept, 2022** 

8	Water Environment		
9	Check Dam		
		14,50,000	-
10	Garland drain		
44	Cattling Dand	-	4,28,000
11	Settling Pond	_	3,44,000
12	Sewage Treatment Plant-STP		3,44,000
	(100KLD)	12,00,000	1,94,700
13	Geo-membrane & its application		
		5,13,300	
14	Dump Management		
15	Coir Mat Application on dump	8,77,800	2,31,000
1.0	slopes	5,-1,000	_10.1000
16	Gabion Box type Retaining Wall	5,42,800	3,34,742
17	Environmental Monitoring	3,42,000	3,34,142
18	Air, Water, Noise, STP, Fugutiive		
10	Dust	-	4,66,053
19	Environmental Instruments &		, , , , , , , , , , , , , , , , , , , ,
	AMC, Calibration		
20	Electronic Display Board		
24		-	15,000
21	Peizometer / Water Level Meter	1,26,260	25,000
22	RDS, AWS	1,20,200	23,000
		-	55,000
23	CAAQM Station - 1 no.		
		62,45,740	
24	Misc Works		
25	ISO Certification of Mines		
		-	1,12,100
26	Awareness Program - World Envt.		2,50,000
27	Day, Forest Day etc.  Grass Seeds & its application	-	42,000
28			-
	Alum & its dosing		31,152
29	TOTAL	2,17,81,579	37,30,595

## ANNEXURES