

**Six monthly EC Compliance  
report of  
Balda Block Iron Mines of M/s  
Serajuddin & Co.  
for the period  
October, 2013 to March, 2014.**

**BBIM-SC/MoEF/EC/COMP/ 2014/**

**Date: 25<sup>th</sup> May, 2014**

**The DIRECTOR (S),**  
Eastern Regional Office,  
Ministry of Environment and Forests,  
Government of India,  
A-3, Chandrasekharpur,  
Bhubaneswar – 751 023.

**Sub: Environmental Clearance for expansion of Balda Block Iron Mining Project of M/s. Serajuddin and Co. located in village(s) Balda, Bada-Kalimati, Nayagarh, Tehsil – Barbil, District-Keonjhar, Orissa – Regarding six monthly compliance reports for the period October, 2013 to March, 2014.**

**Ref: Ministry's clearance letter No. J-11015 / 18 / 2012-IA.II (M), dated.19<sup>th</sup> Nov, 2013.**

Dear Sir,

We are here with submitting the six monthly Environmental Clearance compliance status reports with comprehensive monitored data analysis reports (both in hard & soft copies as well as by e-mail) of **Balda Block Iron Mining Project of M/s Serajuddin & Co. for the period October, 2013 to March, 2014** on the subject.

This is for your kind information, please.

Thanking you.

Yours faithfully,  
For **Balda Block Iron Mines, M/s. Serajuddin & Co.**

**General Manager**

Encl: As Above.

Copy to:

**The Chairman,**

Central Pollution Control Board  
Parivesh Bhawan, CBD-cum-Office Complex,  
East Arjun Nagar,  
Delhi – 110 032

**The Chairman,**

State Pollution Control Board, Orissa  
A/118, Nilakanthanagar, Unit – VIII,  
Bhubaneswar – 751 012.

**The Member Secretary,**

Central Ground Water Authority,  
A2, W3 Curzan Road Barracks,  
K.G. Marg,  
New Delhi – 110 001

**The Controller General,**

Indian Bureau of Mines,  
Indira Bhawan, Civil Lines,  
Nagpur – 440 001

**Status of Environmental Clearance Conditions – “Balda Block Iron Mine –Project of M/s Serajuddin and Co.” located in village(s) Balda, Bada Kalimati and Nayagarh, Sub-division Champua, District Keonjhar, Odisha.**

**A. Specific Conditions**

- i. The project proponent shall obtain Consent to Establish and Consent to Operate from the State Pollution Control Board, Odisha and effectively implement all the conditions stipulated therein.**

**Status**

Consent to establish & consent to operate for extraction of 15.15 MTPA iron ore production has been obtained from the OSPCB, Bhubaneswar, Odisha which also includes installation of 3x250 TPH Mobile Screening plants, 3x150 TPH Mobile crushing Plant, 1x200 TPH Stationary Crushing Plant, 6x150 TPH Mobile Screening Plants, 1x175 TPH Stationary crusher Plant, 1x1500 TPH Stationary Screening Plant and 1x600 TPH Stationary Crushing plant vide Consent Order No. 1192 and vide Letter No. 23058/IND-I-CON-2183 dated 16-12-2013. All the conditions stipulated in the consent to establish & Consent to operate are implemented.

- ii. Environmental Clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority, as may be applicable this project.**

**Status**

Not Applicable, as the authentic map in this regard is showing non-existence of any ecologically sensitive area such as national park/wildlife sanctuary /biosphere reserve/ elephant/tiger reserves and their corridors etc. within the 10 km radius of buffer zone.

- iii. No mining activities are allowed in forest area for which the FC is not available.**

**Status**

Presently the operations are restricted to Broken-up DLC forest - 112.773 Ha, Non-forest area - 77.461 Ha. & Forest area (VF) of 24.446 Ha for which the requisite clearances are obtained.

- iv. As per the guide lines issued by the Forest Conservation in this ministry vide F. No. 11-362/2012-FC dated 1st February, 2013 the project proponent shall seek and obtain approval under the Forest (Conservation ) Act, 1980 for diversion of the entire forest land located within the mining lease on or before 31st January 2015, failing which the mining lease area will be reduced to the non forest area plus the forest area for which the project proponent has been able to obtain the FC at the end of this time period. In the case of reduction in mine lease area, the project proponent will need to get a revised**

**mining plan approved from the competent authority for reduced area and enter into a new mining lease as per reduced lease area. The EC will be constructed to be available for the mining lease area as per the revised mining lease deed.**

#### **Status**

In this regard, the project has applied for the diversion of the entire forest land area over 258.133 Ha including 24.446 Ha already diverted earlier, 108.345 Ha broken up DLC forest land prior to 1980, 100.564 Ha virgin forest land and 25.716 ha safety zone as per the directions issued by the DFO, Keonjhar.

However, presently the operations are restricted to broken-up DLC forest (112.73 Ha) & non-forest area only; it will be further extended to Forest Cleared granted area of 24.446 Ha.

- v. Effective safeguard measures shall be taken to ensure that the AAQ level at various locations including crushing zone, area within permissible limit as prescribed by CPCB. The standards prescribed for stone crushers shall be followed.**

#### **Status**

The necessary safe guard measures towards the same got implemented with the provisions of the followings;

- Dust suppression system (dry fog system) and hoods over the conveyor belts have been provided for ore crushing, screening plants and transfer points to control fugitive dust emission from these sources.
- 6 no. of mobile water tankers (Two 35 KL & Four 8 KL) have been provided at loading and unloading points, in & around the crusher and screening plants and other strategic dust generating areas including the mines haul and mineral dispatch roads.
- Apart from that fixed - auto water sprinkling arrangement got provided at transfer points, mines haul roads and mineral dispatch roads including the other strategic locations which are prone to dust generations. These are properly maintained and operated.

- vi. Traffic density on the route of mineral transportation shall be regularly monitored and report shall be submitted along with compliance report.**

#### **Status**

Traffic monitoring is regularly carried out to check the traffic density on the route of mineral transportation.

- vii. As part of ambient air quality monitoring during operational phase of the project, the air samples shall also be analyzed for their mineralogical composition and records maintained.**

**Status**

The samples of ambient of air quality are analyzed regularly for their mineralogical composition and records of the same are being maintained.

- viii. The project proponent shall set up at least one air quality monitoring station in the South west direction during monitoring of the AAQ.**

**Status**

The project has already established one AAQ station in the SW direction of the Mine area i.e. Village Jamupani.

- ix. The mining operations shall be restricted to above ground water table and it should not intersect groundwater table. In case of working below the ground water table, Prior approval of the Ministry of Environment & Forests and Central Ground Water Authority shall be obtained.**

**Status**

Our mining activity does not intersect ground water table of the area. The present working depth varies from mines working pit to pit i.e. Pit No. -1 at 580RL, Pit No. - 4 at 550RL Pit No. -5 at 540RL, Kalimati Pit at 550 RL and BLOCK F-1 at 560 RL which is far above the ground water level which exists 517aMSL. The intersection of ground water table will not occur during the present working scheme period (2012-13 to 2016-17).

However, in the next plan period, there will be intersection of the ground water table. In this regard, the Project has carried out detailed study on hydrology and hydro-geological aspect of the area through an expert agency and applied to CGWA for grant of NOC and CGWA has made is clear that, as there is no intersection of the ground water presently, so the project may approach at the end of the 6<sup>th</sup> year when mining will intersect the ground water table vide letter no. 21-4(401)/SER//CGWA/2011-1422 dated 14.08.2013.

- x. Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading & unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.**

**Status**

Regular water sprinkling is being carried out by engaging 6 no. of water tankers (Two 35 KL & four 8 KL) on the mines haul roads & in critical areas prone to air pollution and having

high levels of particulate matters such as around crushing & screening plant, loading and unloading point and transfer points for dust suppressions.

Apart from that auto fixed water sprinkling arrangement of 5.5Kms length got provided for mineral dispatch roads.

Dry fogging along with hoods over conveyor belts got provided for crusher and screen plants. Apart from that the dust extraction system for the mineral handling plants work is under progress. These are properly maintained and operated.

- xi. Effective safeguard measures such as regular water sprinkling should be carried out in critical areas prone to air pollution and having high levels of particulate matters such as around crushing & screening plant, loading and unloading point and transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central pollution Control board in this regard.**

#### **Status**

Regular water sprinkling is being carried out by engaging 6 no. of water tankers (Two 35 KL & four 8 KL) on the mines haul roads & in critical areas prone to air pollution and having high levels of particulate matters such as around crushing & screening plant, loading and unloading point and transfer points for dust suppressions.

Apart from that auto fixed water sprinkling arrangement of 5.5Kms length got provided for mineral dispatch roads.

Dry fogging along with hoods over conveyor belts got provided for crusher and screen plants. Apart from that the dust extraction system for the mineral handling plants work is under progress. These are properly maintained and operated.

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 Office and Kalimati pit and there are 5 no. of monitoring stations in the buffer zone such as Jamupani village, Unchabali Village, Balda Village, Nayagarh village and Siljora Village. Monitoring of AAQ is carried out every month except during monsoon. The monitoring report for the period October 2013 to March 2014 reveals that the parameter like PM10, PM2.5, SO<sub>2</sub> and NO<sub>x</sub> are well within the norms as per NAAQs notifications made by the CPCB.

- xii. 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.**

### **Status**

In this regard KRG RAIN WATER FOUNDATION, CHENNAI was engaged and the report got prepared in consultation with Regional Director, CGWB, and Bhubaneswar. Check weirs, check dams, de-silting cum percolation ponds/pits got provided at the strategic locations of the mines lease area.

In line to the same, suitable rain water harvesting measures along with roof top rain Water Harvesting Structures for the camp area got implemented. De-siltation of the village ponds surrounded by ML area has undertaken towards percolation cum rain water harvesting purposes and it is being de-silted before each monsoon.

- xiii. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network existing wells and installing new piezometers 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 Ministry of Environment and Forests and its Regional Office, Bhubaneswar, 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.**

### **Status**

Monitoring of the ground water quality at 9 locations namely Inside Mining lease area, Unchabali village, Kalimati village, Balda Village, Malda Village, Siljora Village, Namira Village, Nayagarh Village & Jamupani Village. The records are also maintained for this purpose. The ground water quality as well as ground water level is being monitored 4 times in a year i.e. pre-monsoon, monsoon, post monsoon and winter. The variation of the water depth between post monsoon & pre-monsoon for the year 2012-13 & 2013-14 is compared and found that the water level is relatively increased in post monsoon period. The results reveal that there is no such depletion of the ground water level. However, the project is supplying the drinking water to the project near by villages.

- xiv. The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations.**

### **Status**

We ensure that no natural water course will be obstructed due to our Mining Operations. In this regard Guard wall of about 868 Meters along with plantations got provided on both the sides at the Bank of Betajhari Nallah maintaining the safety zone of 50m and site specific surface run off management measures like; check weirs, check dams, de-silting cum percolation pits/ponds cum harvesting pits are provided in order to prevent any sort of silt carry over with run off in to the nearby water bodies.



- xv. Process water discharge and/or any waste shall be properly treated to meet the prescribed standards before reuse/recharge. The runoff from temporarily from OB Dumps and other surface runoff shall be analyzed for Iron and incase its concentration is found higher than the permissible limit the wastewater should be treated before recharge/ reuse.**

**Status**

There is no process waste water. However, the site specific mitigation measures to prevent silt carried into nearby natural water bodies i.e. for Bethjhari & Jalpa Nallah got implemented like; surface run off management structures, retaining wall followed garland drain, check dam, de-silting cum percolation pits/ponds etc. and guard wall across the bank of the natural water bodies.

The treated mine run off discharge water is being tested during the monsoon and the analysis results are very well within the norms.

- xvi. Regular monitoring of the flow rate of the springs and perennial nalla shall be carried out and records maintained**

**Status**

Regular monitoring of different surface water bodies of nearby the mines are being carried out and record of monitoring data is maintained.

- xvii.Green barrier (Five stratified rows) should be raised towards Betjhari Nalla and Jalpa River.**

**Status**

A well develop green barrier with suitable native species of the saplings has been made towards protection of the Betjhari Nalla and Jalpa nallah.

- xviii. The reclaimed and rehabilitated area shall be afforested. Monitoring and management of rahabilited areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & forest and its Regional Office located at Bhubaneswar on six monthly basis.**

**Status**

There are 5 nos. of sub-grade dumps and one no. of OB dump. All the Sub-grade dumps & OB dump have been planted with application of mixed grass seeds & vertiver applications along the slope to stabilize and also to reduce wash off in case of rain cut during monsoon, coir mat applications also made.

Gap filling plantations of 23,355 No's sapling of different varieties of native species was carried on the safety zone, OB dump, road side & peripheral area of ML in the year 2013-14

with native species as per local forest department. Apart from those avenue plantation of 8,562 numbers of saplings has been completed all along the road connecting from Joda to Palaspanga under the guidelines of DFO, Keonjhar Division.

- xix. Dimension of the retaining wall at the toe of the temporary over burden dumps and OB benches within the mine to check run-off and siltation should be based on the rain fall data.**

**Status**

Retaining wall of 3.7 Kms has been constructed at the toe of the OB and sub-grade dumps with proper dimensions i.e. 1.2 M x 1.0 m by considering the annual rain fall data.

- xx. Plantation shall be raised in an area of 225.308 Ha including a 7.5 m 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 into 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 hectare.**

**Status**

Plantations along with gap filling of 1, 08,581 numbers of saplings with area of 42.68 Ha. For the last 7 years with the survival rate of 70%, on an average of 75, 363 species survived up to the year 2013-14 inside the mining lease area including the safety zones, ML Boundary, Road Side, Nalla Bank etc.

Gap filling plantations of 23,355 No's sapling of different varieties of native species was carried on the safety zone, OB dump, road side & peripheral area of ML in the year 2013-14 with native species as per local forest department. Apart from those avenue plantation of 8,562 numbers of saplings has been completed all along the road connecting from Joda to Palaspanga under the guidelines of DFO, Keonjhar Division.

As far as plantation over an area of 225.308 Ha is concern, it will be carried out at the end of the mines life and the same will be carried out in consultation with the local DFO/Agriculture dept.

- xxi. Blasting operation shall be carried out during the day time Controlled blasting shall be practiced. The mitigate measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented. Drills shall either be operated with dust extractors or equipped with water injection system**

**Status**

Presently the Controlled blasting is being carried out by using the Nonel technology and following the recommendation of the **CIMFR, Dhanbad**. It is being followed in day time only. Ground vibrations are also being monitored by using the mini-mate instrument and the results are well within the norms.

During the reporting periods, ground vibration studies are conducted and the resultant PPV varies in between 0.284mm/sec to 4.11mm/ sec.

**xxii. Regular monitoring of water quality upstream and downstream of Baitarani River and other water bodies shall be carried out and record of monitoring data should be maintained and submitted to Ministry of Environment and forest its Regional Office, Bhubaneswar, Central Ground water Authority Regional director, Central Ground water board, State pollution Control board and central pollution control board.**

#### **Status**

Regular monitoring of water quality upstream and downstream of Baitarani River and other water bodies are being carried out and record of monitoring data is maintained and submitted to respective authorities.

**xxiii. Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, temporary soil, OB and mineral dump(s) to prevent run-off of water & flow of sediments directly into the Jalpa Nallah, the Betjhari Nallah, the Baitarani river & water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drain should be regularly de-silted particularly after monsoon and maintained properly.**

**Garland drain, settling tanks & check dams of appropriate size, gradient and length shall be constructed around mine pit, temporary soil, OB and mineral dump(s) to prevent run-off of water & flow of sediments directly into the Jalpa nallah, the Betjhari Nallah, the Baitarani river & water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material.**

**Sedimentation pits should be constructed at the corners of the garland drains and de-silted at regular intervals.**

#### **Status**

The details of the same are mentioned in the above specific conditions no. – XII and table no. – 6. De-silting of the settling pits/ponds, sedimentation pits is being regularly carried out before each mon-soon.

**xxiv. Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director Central Ground Water Board.**

#### **Status**

The details of the same are mentioned in the above specific conditions no. – XII.

**xxv. 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. The enhanced production will be transported by using higher capacity trucks rather than increasing the number of trucks and the trucks to be used for minerals transportation should be covered with tarpaulin. The vehicles carrying the mineral.**

**Status**

We are regularly monitoring the emission of the vehicle to ascertain whether the vehicle meet the pollution norms. The tests are being conducted on regular basis by engaging M/s Shyam Sunder Mobile Pollution Testing Centre, Cuttack. The maximum value of K – factor &HSU found to be 1.37 and 0.53respectively. The vehicles which are carrying the loaded materials are being fully covered with tarpaulins covers.

We have provided the anti spillage rubber matting at the tail gates to curb the spillage on the roads.

We ensure the preventive measures are being under taken for maintenance of vehicles used in mining operations and for transportation of mineral.

**xxvi. Sewage treatment plant shall be installed for the colony. ETP shall also be provided for workshop and waste water generated during mining operation.**

**Status**

There is a base camp located near to the Project for which STP has been constructed to cater to need of domestic effluent generated from the Kitchen, toilet etc. ETP cum workshop is also provided within the mining lease area with the provisions of the oil and grease trap system along with sediment settling and filtering provisions. The final outlet is having provision for reuse of treated water for workshop, plantation, dust suppression etc. The oil and grease collected from the ETP are collected into the leak proof barrels/drums and sold to the authorized reprocessors.

**xxvii. 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 Forest and its Regional Office, Bhubaneswar.**

**Status**

Digital processing of the entire lease area using remote sensing technique will be carried out regularly once in three years for monitoring land use pattern of the entire lease area.

**xxviii.Pre-placement medical examination & periodical medical examination of the workers engaged in the project shall be carried out & records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.**

### **Status**

Initial Medical Examination & Periodical Medical Examination of the workers engaged in the project is being undertaken periodically for permanent and outsider employees along with the pre-medical examination of persons employed, who are engaged in the process of mining & are likely exposed to dust to observe any contractions due to exposure to dust. This is being carried as per in compliance to Mines Act 1952 & rules 1956 and amendments there to.

The last such examination held for the period October 2013 to March 2014 for 217 employees of the Project. The various tests include PFT, X-Ray, and lung spirometry etc.

### **xxix. Implementation of Action plan submitted with budgetary on issues raised during public Hearing.**

#### **Status**

The action plan submitted with budgetary on issues raised during public hearing were implemented as per its time period.

**xxx. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna namely elephant, sloth bear, etc. spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. Necessary allocation of funds for implementation of conservation plan shall be made and the funds so allocated shall be included in the project cost. All the safeguard measures brought out in the Wild life Conservation Plan prepared specific to the project site shall be effectively implemented. A copy of action plan may be submitted to the Ministry of Environment & Forest and its Regional Office, Bhubaneswar.**

#### **Status**

A site specific Wild Life conservation and Management plan got prepared in consultation with DFO and submitted on 12.12.2012 with Divisional Forest Officer & Wild Life Warden, Keonjhar as per the new guide lines from DFO vide his letter no. 6080 dated 21.08.2012.

The Site Specific Wildlife Conservation Plan got prepared through Sri. P. K. Sarangi, Retd. IFS with an estimated cost of Rs. 314.36 lakh of which Rs. 81.56 lakh has been earmarked for implementation of Site Specific Wild Life Conservation Plan within the Mining Lease area and Rs. 232.80 Lakh has been earmarked for implementation for the purpose in the buffer zone i.e. within the zone of influence.

A sum of Rs. 67, 11, 880/- contributed towards implementation of Regional Wild Life Conservation Plan.

Site specific measures like photo voltaic fencing of 1.3 Kms of stretch is implemented towards prevention of entry of wild animals into the working pits out of 3.1 Kms, remaining length will be covered in the 2nd phase. Photo of the same is enclosed as **photo – 21**.

**xxxi. A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.**

**Status**

The Project has submitted a Bank guarantee of Rs. 55, 11, 450/- for rehabilitation of 220.458 Ha mined out area @ 25, 000/- Ha as a part of the management of the mines closure of the Project. It has been approved by IBM in the scheme of mining on 27.04.2012.

**B. GENERAL CONDITIONS**

**I. No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forest.**

**Status**

The Mining method of the project is fully mechanized having sovels, dumper combinations and sorting and sizing of the Iron Ore.

**II. No change in the calendar plan including excavation, quantum of mineral iron ore and waste should be made.**

**Status**

The excavation, quantum of mineral, iron ore for last three years are as follows;

<b>Sl. No.</b>	<b>Year</b>	<b>Mineral</b>	<b>Quantity (In MT)</b>	<b>OB (In MT)</b>
1.	2010-11	Iron Ore	1, 478, 930	6, 26, 810
2.	2011-12	Iron Ore	1, 456, 477	2, 14, 495
3.	2012-13	Iron Ore	4, 498, 009	8, 45, 060

**III. The top soil, if any shall temporarily be stored at earmarked site(s) only and should not be kept unutilized for long. The topsoil should be used for land reclamation and plantation. The over burden (OB) generated during the mining operation shall be stacked at earmarked dump site(s) only and it should not be kept active for long period of time. The maximum height of the dumps shall exceed 8 m and width 20 m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use for geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and 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 Bhubaneswar on six monthly basis.**

### **Status**

There is no generation of the top soil during mining operations. In case of top soil generation generated in future, it will be stored in an earmarked area and necessary precaution will be taken to preserve its nutrient values so that it will be used for land reclamation and raising plantations.

There are 5 nos. of sub-grade dumps and one no. of OB dump. All the Sub-grade dumps & OB dump have been properly terraced by maintaining the adequate slope & height and dumps are scientifically vegetated with application of mixed grass seeds & vertiver applications along the slope to stabilize and also to reduce wash off in case of rain cut during monsoon, coir mat applications also made.

- IV. 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 NOX monitoring. Location of the stations should be decided based on the metrological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board. Data on ambient air quality [RSPM (Particulate matter with size less than 10 micron i.e., PM10) and NOX] should be regularly submitted to the Ministry including its Regional office located at Bhubaneswar and the State Pollution Control Board / Central pollution Control Board once in six months.**

### **Status**

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 Office and Kalimati Pit area and there are 5 no. of monitoring stations in the buffer zone such as Jamupani village, Unchabali Village, Balda Village, Nayagarh village and Siljora Village. Monitoring of AAQ is carried out twice in a week except during monsoon. The monitoring report for the period October 2013 to March 2014 reveals that the parameter like PM10, PM2.5, SO2 and NOx are well within the norm as per NAAQs notifications made by the CPCB.

- V. Measures should be taken for control of noise levels below 85 dB (A) in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.**

### **Status**

Workers engaged in Operations are provided with earplugs / muffs, besides this acoustic enclosure for all machine operating cabins are provided. It is being monitored by Noise Level Meter; the results reveals very well within norms.

**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.**

**Status**

Workers engaged in different mining Operations are provided with protective respiratory devices i.e. Nose Mask, ear plugs, ear muffs etc. Apart from that adequate Training on safety and Health aspects is being carried out on weekly basis among all the employees. However, regular sprinkling is being carried in and around work place areas.

**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.**

**Status**

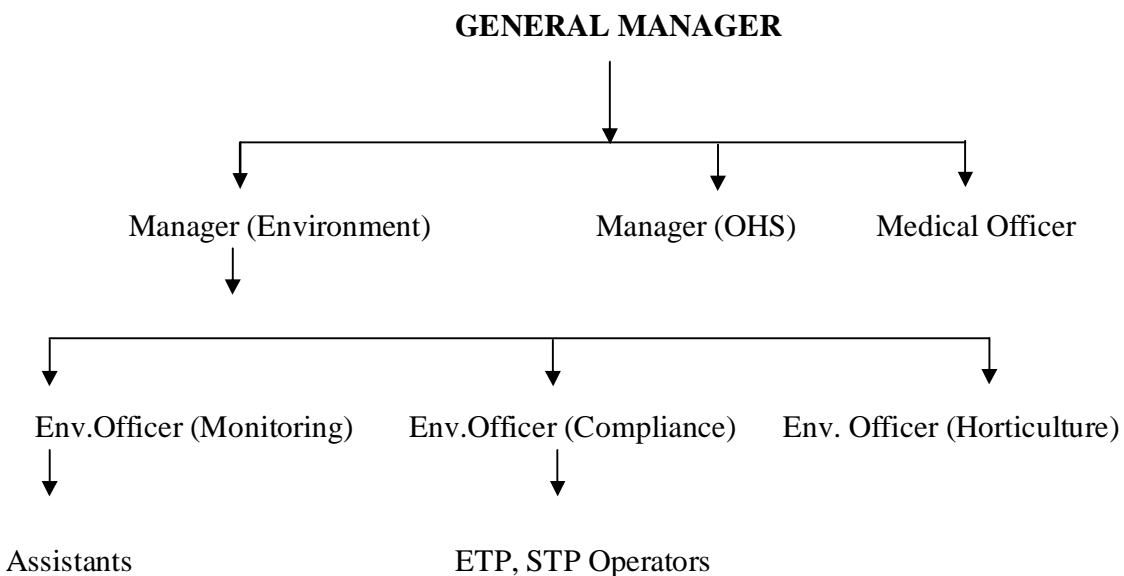
The details of the same is mentioned in the specific condition no. XXVIII.

**VIII. A separate environmental management cell with suitable qualified personnel should be setup under the control of a senior executive, who will report directly to the Head of the Organization.**

**Status**

We have established an Environmental Cell headed by the General Manager to look after the implementation of the various pollution control measures and other Environment Management System requirements.

The organizational chart for above environmental cell is given below:





**IX. The funds earmarked for environmental protection measures should be kept in separate account and should not diverted for other purpose. Year wise expenditure should be reported to the Ministry and Regional Office located at Bhubaneswar.**

**Status**

The fund earmarked for environmental protection is being utilized for the said purpose only.

**X. The project authorities should inform to the Regional Office located at Bhubaneswar regarding date of financial closures and final approval of the project by the concerned authorized and the date of start of land development work.**

**Status**

The Project is in operation since 1962; therefore the date of financial closure, final approval of the project and date of land development of the project will be intimated.

**XI. The Regional Office of the Ministry located at Bhubaneswar 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.**

**Status**

We will extend all our cooperation during any such inspections by the Authority.

**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, Bhubaneswar, the respective zonal office of Central pollution Control Board and State pollution Control Board. The proponent shall upload the status of compliance of the environmental clearance conditions, including results of the 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, Bhubaneswar, the respective zonal officer of Central pollution Control Board and the State pollution Control Board.**

**Status**

We are uploading the six monthly EC Compliance reports in our website bearing the address [www.serajuddin-bbim.com](http://www.serajuddin-bbim.com).

The detail of submission of the six monthly compliance reports on the status of the implementation of the stipulated conditions is as follows;

<u>Sl. No.</u>	<u>Period</u>	<u>Date of Submission</u>
1)	April 2013 to September 2013	25.11.2013
2)	October 2012 to March 2013	25.05.2013
3)	April 2012 to September 2012	25.10.2012
4)	October 2011 to March 2012	24.05.2012
5)	April 2011 to September 2011	25.10.2011
6)	October 2010 to March 2011	25.05.2011
7)	April 2010 to September 2010	03.09.2010
8)	October 2009 to March 2010	25.05.2010

**XIII. A copy of clearance letter shall be sent by 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.**

**Status**

It has been complied with intimating the letters to local Gram Panchayat, Municipality, DDM Office, Zila Parishad, Divisional Forest Officer etc. and a copy of environmental clearance letter is also made available in the company's website i.e. [www.serajuddin-bbim.com](http://www.serajuddin-bbim.com).

**XIV. The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.**

**Status**

Compiled from SPCB, Bhubaneswar

**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, Bhubaneswar by e-mail.**

**Status**

The environment statement for the year 2013-14 got submitted to SPCB, Odisha and copy of the same is also updated in the company's website i.e. [www.serajuddin-bbim.com](http://www.serajuddin-bbim.com). The copy of

the same is being sent to the Regional Office of the Ministry of Environment and Forests, Bhubaneswar.

**XVI. The project authorities should advertise at least in two local newspapers in the district or State in which the project is located & 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 Bhubaneswar.**

#### **Status**

We have advertised in the two local newspapers i.e. Sambad - Odia Daily (vernacular language) and The New Indian Express – English daily within stipulated time period. A copy of the same got submitted to the Regional Office of this Ministry located at Bhubaneswar.