दि उड़ीसा मिनरलस् डेवलपमेंद कंपनी लिमिटेड (भारत सरकार का उद्यम)



THE ORISSA MINERALS DEVELOPMENT CO. LTD. (A Government of India Enterprise)

# ଦି ଡଡ଼ିଶା ମିନେରାଲ୍ସ୍ ଡେଭେଲପ୍ମେଷ୍ଟ କମ୍ଫାନି ଲିମିଟେଡ଼ (ଭାରତ ସରକାରଙ୍କ ସଂସ୍ଥା)

Ref .: NSE, BSE, CSE/OMDC/CS/12-2023/01

| Dated: 14.12.2023           |  |                    |
|-----------------------------|--|--------------------|
| То,                         | То   | То                 |
| The Compliance Department   | The Compliance Department                  | The Secretary      |
| National Stock Exchange of  | Department of Corporate                    | The Calcutta Stock |
| India Limited               | Services                                   | Exchange           |
| Exchange Plaza, Plot No.    | Bombay Stock Exchange                      | 7, Lyons Range     |
| C/1, Block — G, Bandrakurla | Limited                                    | Kolkata-700001     |
| Complex, Bandra (E),        | 1 <sup>st</sup> Floor, PhirozeJee, Jeebhoy | SCRIPT CODE: 25058 |
| Mumbai - 400051             | Tower, Bombay Samachar                     |                    |
| SCRIPT CODE:                | Marg, Mumbai-400001                        | ×                  |
| ORISSAMINE                  | SCRIPT CODE: 590086                        |                    |

Dear Sir/Madam,

# Sub.: Consent Order for Bagiaburu Iron Ore mines of The Orissa Minerals Development Company Limited (OMDC) issued by SPCB, Odisha

State Pollution Control Board (SPCB), Odisha issued Consent to Operate for Bagiaburu Iron Ore mines of The Orissa Minerals Development Company Limited (OMDC) vide its consent order no.1390 & letter no.19739/ IND-I-CON-2866 dated 13.12.2023 for production Iron Ore (ROM) of 3,60,000 TPA in the mine lease area of 21.52 Ha located at village Uliburu, Tehsil Barbil, District Keonjhar, Odisha. Consent Order dated 13.12.2023 issued by SPCB, Odisha is enclosed for reference.

The consent order supersedes the earlier consent order issued vide letter No.12841, dated 11.08.2023.

You are requested to kindly take note of the above information on record.

Thanking You. •

Yours faithfully,

For The Orissa Minerals Development Company Limited

S. Raja Babu Company Secretary एस. राजा बाबू-S. RAJA BABU कंपनी सचिव-Company Secretary दि उड़ीसा मिनरलस डेवलपमेंट कंपनी लिमिटेड The Orissa Minerals Development Comany Limited CIN:L51430OR1918GOI034390

ମୁଖ୍ୟ କାର୍ଯ୍ୟାଳୟ : ପୁଟ ନଂ-୨୭୧, ଗ୍ରାଉଷ ଫ୍ଲୋର୍, ବିଦ୍ୟୁତ୍ ମାର୍ଗ, ଶାସ୍ତ୍ରୀ ନଗର, ୟୁନିଟ୍-୪, ଭୁବନେଶ୍ୱର, ଓଡ଼ିଶା - ୭୫୧୦୦୧ मुख्य कार्यालय : प्लॉट नं - २७१, ग्राउण्ड फ्लोर, विद्युत मार्ग, शास्त्री नगर, युनिट-४, भुवनेश्वर, ओड़िशा - ७५१००१



Page 1 of 13

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# STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST, ENVIRONMENT & CLIMATE CHANGE, GOVERNMENT OF ODISHA] A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012 Phone-2561909, Fax: 2562822, 2560955 E-mail: paribesh1@ospcboard.org, Website: www.ospcboard.org

# CONSENT ORDER

No. 19739

### IND-I-CON-2866

Dt. 13.12.2023

# CONSENT ORDER NO. 1390.

- Sub: Consent for discharge of sewage and trade effluent under section 25/26 of Water (PCP) Act, 1974 and for existing / new operation of the plant under section 21 of Air (PCP) Act, 1981.
- Ref: Your online application <u>No.4777699</u>, <u>Dated 21.03.2023</u>, <u>Your letter No.OMDC/BH/</u> 2023/645, dated 31.10.2023 and online reply dated 01.12.2023.

Consent to operate is hereby granted under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and rules framed thereunder to

Name of the Industry:

# BAGIABURU IRON ORE MINES OF M/S ORISSA MINERALS DEVELOPMENT COMPANY LIMITED.

Name of the Occupier & Designation: SRI JAYARAM PARIDA, BUSINESS HEAD

Address: AT/PO:THAKURANI, BARBIL, ULIBURU, DIST: KEONJHAR, PIN-758035, ODISHA

This consent order is valid for the period up to 31/03/2025.

This consent order supersedes the earlier consent order issued vide letter No.12841, dated 11.08.2023.

### Details of Products Manufactured

| SI. No | Product        | Quantity     |
|--------|----------------|--------------|
| 01.    | Iron Ore (ROM) | 3,60,000 TPA |

### Details of Mineral Handling Plants /Units:

| 01. | Operation of mobile crusher | plant of capacity 1x150 TPH |
|-----|-----------------------------|-----------------------------|
|-----|-----------------------------|-----------------------------|

### 02. Operation of mobile screen plant of capacity 1x200 TPH

This consent order is valid for the specified outlets, discharge quantity and quality, specified chirnney/stack, emission quantity and quality of emissions as specified below. This consent is granted subject to the general and special conditions stipulated therein.



# A. Discharge permitted through the following outlet subject to the standard

|    |  | Point of                                    | Quantity               | Prescribed Standard |   |            |        |
|----|--|---|------------------------|---------------------|---|------------|--------|
|    | Description of<br>outlet                                       | discharge                                   | of<br>discharge<br>KLD | pН                  | TSS (mg/l)                                | BOD (mg/l) | (mg/l) |
| 01 | Septic tank<br>(Domestic<br>effluent)                          | Soak pit                                    | -                      | 5.5-9.0             | 200                                       | 100        | 10     |
| 02 | Mine drainage<br>water/ surface<br>runoff/ other<br>wastewater | On land<br>/Inland<br>surface<br>water body | -                      |                     | 100 (Rainy day)<br>50<br>(Non- Rainy day) |            |        |

# B. Fugitive Emission Standards

| Particulate Matter           | 1200 $\mu$ g/m <sup>3</sup><br>technology direction at a distance 25.0 ± 2.0  |
|------------------------------|---|
| Note : Fugitive emission s   | thall be monitored in the predominant downwind direction at a distance 25.0 <u>+</u> 2.0<br>fugitive emission as per following :<br>Monitoring Location                 |
| metres from the source of    | Monitoring Location   |
| Area                         | time and leading applicable for operating benches above water   |
| Mine face / Benches          | Drilling, excavation and loading applicable for operating benches above water<br>table<br>Haul roads to ore processing plant, waste dumps and loading areas and service |
| Haul Roads/ Service<br>Roads | Haul roads to ore processing plant, waste dumps and transfer points.<br>road.<br>Run-off mine unloading at hopper, crushing areas, screens and transfer points.         |
| Crushing plant               | Run-off mine unloading at hopper, crushing aready ere   |
| Screening plant              | Screens, conveying and transportation of ore discharge points.  |
| Ore storage and loading      | Intermediate stock bin / pile areas, ore stock bin / pile areas, wagon / truck loading areas.   |
| Waste dump                   | Active waste / reject dumps   |

# C. Disposal of solid waste permitted in the following manner

| SI.<br>No. | Type of Solid<br>waste   | Quantity<br>generated<br>(TPD)    | Quantity<br>to be<br>reused on<br>site(TPD) | Quantity<br>to be<br>reused off<br>site(TPD) | Quantity<br>disposed<br>off<br>(TPD) | Description of disposal site. |
|------------|--------------------------|-----------------------------------|---|--|--------------------------------------|-------------------------------|
| 01         | Top soil/ over<br>burden | As per<br>approved<br>mining plan | -   |  | Quantity<br>as<br>generated          | As per approved mining plan   |



#### D. **GENERAL CONDITIONS FOR ALL UNITS**

- The consent is given by the Board in consideration of the particulars given in the application. Any change or alternation or deviation 1 made in actual practice from the particulars furnished in the application will also be the ground liable for review/variation/revocation of the consent order under section 27 of the Act of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations as deemed fit for the purpose of the Acts.
- The industry would immediately submit revised application for consent to operate to this Board in the event of any change in the 2 quantity and quality of raw material / and products / manufacturing process or quantity /quality of the effluent rate of emission / air pollution control equipment / system etc.
- The applicant shall not change or alter either the quality or quantity or the rate of discharge or temperature or the route of discharge 3 without the previous written permission of the Board.
- The application shall comply with and carry out the directives/orders issued by the Board in this consent order and at all subsequent 4 times without any negligence on his part. In case of non-compliance of any order/directives issued at any time and/or violation of the terms and conditions of this consent order, the applicant shall be liable for legal action as per the provisions of the Law/Act.
- The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order. 5
- The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does 6 it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation.
- This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any 7.
- The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this 8
- 9 An inspection book shall be opened and made available to Board's Officers during the visit to the factory.
- The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the 10. plant or of effluent treatment system / air pollution control system / stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of Water / Air.
- Meters must be affixed at the entrance of the water supply connection so that such meters are easily accessible for inspection and 11 maintenance and for other purposes of the Act provided that the place where it is affixed shall in no case be at a point before which water has been taped by the consumer for utilization for any purposes whatsoever.
  - Separate meters with necessary pipe-line for assessing the quantity of water used for each of the purposes mentioned below:
    - a) Industrial cooling, spraying in mine pits or boiler feed,
    - b) Domestic purpose
  - C) Process

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- The applicant shall display suitable caution board at the place where the effluent is entering into any water-body or any other place to 13. be indicated by the Board, indicating therein that the area into which the effluents are being discharged is not fit for the domestic
- Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the 14. flow measuring devices will be installed.
- The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall 15 be leak-proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.
- The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or 16. systems install or used by him to achieve with the term(s) and conditions of the consent.
- Care should be taken to keep the anaerobic lagoons, if any, biologically active and not utilized as mere stagnation ponds. The 17. anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed with sides and bottom made impervious.
- The utilization of treated effluent on factory's own land, if any, should be completed and there should be no possibility of the effluent 18 gaining access into any drainage channel or other water courses either directly or by overflow.
- The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at 19.
- If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a 20 matter of dispute, the industry must adopt alternate satisfactory treatment and disposal measures.
- The sludge from treatment units shall be dried in sludge drying beds and the drained liquid shall be taken to equalization tank. 21
- The effluent treatment units and disposal measures shall become operative at the time of commencement of production. 22
- The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling and provide 23

electrical outlet points and other arrangements for chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provision of the Act or Rules made therein.

- The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples / stack monitoring / 24. inspection.
- The applicant shall not change or alter either the quality or quantity or rate of emission or install, replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in any change in quality and/or quantity of emissions, 25. without the previous written permission of the Board.
- No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous 26 approval of the Board.
- The liquid effluent arising out of the operation of the air pollution control equipment shall be treated in the manner and to ion of standards prescribed by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 (as 27. amended)
- The stack monitoring system employed by the applicant shall be opened for inspection to this Board at any time. 28.
- There shall not be any fugitive or episodal discharge from the premises. 29
- In case of such episodal discharge/emissions the industry shall take immediate action to bring down the emission within the limits prescribed by the Board in conditions/stop the operation of the plant. Report of such accidental discharge /emission shall be brought to 30. the notice of the Board within 24 hours of occurrence.
- The applicant shall keep the premises of the industrial plant and air pollution control equipments clean and make all hoods, pipes, valves, stacks/chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be 31. made easily accessible at all times.
- Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of an 32. pollutants and / or result in violation of the standards mentioned above shall be reported to the Headquarters and Regional Office of the Board by fax / speed post within 24 hours of its occurrence.
- The industry has to ensure that minimum three varieties of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the industries or industrial premises. This plantation is stipulated over and above the bulk 33. plantation of trees in that area.
- The solid waste such as sweeping, wastage packages, empty containers residues, sludge including that from air pollution control equipments collected within the premises of the industrial plants shall be disposed off scientifically to the satisfaction of the Board, so 34. as no to cause fugitive emission, dust problems through leaching etc., of any kind.
- All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by : 35
  - Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may i) percolate into ground water or carried away with storm run-off.
  - Controlled incineration, wherever possible in case of combustible organic material. ii)
  - Composting, in case of bio-degradable material. iii)
- Any toxic material shall be detoxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxication or sealing and burying shall be carried out in the presence of Board's authorized 36 persons only. Letter of authorization shall be obtained for handling and disposal of hazardous wastes.
- If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an 37. opportunity of being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.
- The applicant, his/heirs/legal representatives or assignees shall have no claim whatsoever to the condition or renewal of this consent 38. after the expiry period of this consent.
- The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of 39. this consent.
- Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under 40 section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.
- The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control of 41. Pollution) Act, 1974 and section 21 A of Air (Prevention & Control of Pollution) Act, 1981.
- In case the consent fee is revised upward during this period, the industry shall pay the differential fees to the Board (for the remaining 42 years) to keep the consent order in force. If they fail to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.
- The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any 43 violation is observed and to modify/ stipulate additional conditions as deemed appropriate.



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#### CONSENT ORDER BAGIABURU IRON ORE MINES OF M/S OMDC LIMITED

#### GENERAL CONDITIONS FOR UNITS WITH INVESTMENT OF MORE THAN Rs 50 CRORES, AND 17 CATEGORIES OF HIGHLY POLLUTING INDUSTRIES (RED A).

- The applicant shall analyse the emissions every month for the parameters indicated in TABLE. B & C as mentioned in this order and shall furnish the report thereof to the Board by the 10<sup>th</sup> of the succeeding month.
- 2 The applicant shall provide and maintain at his own cost three ambient air quality monitoring stations for monitoring Suspended Particulate Matter. Sulphur Dioxide, Oxides of Nitrogen, Hydro-Carbon, Carbon-Monoxide and monitor the same once in a day/week/fortnight/month. The data collected shall be maintained in a register and a monthly extract be furnished to the Board.
- The applicant shall provide and maintain at his own cost a meteorological station to collect the data on wind velocity, direction, temperature, humidity, rainfall, etc. and the daily reading shall be recorded and the extract sent to the Board once in a month.
  - The applicant shall forward the following information to the Member Secretary, State Pollution Control Board, Odisha, Bhubaneswar regularly,
    - a) Report of analysis of stack monitoring, ambient air quality monitoring meteorological data as required every month.
       b) Progress on planting of trees quarterly.
- <sup>2</sup> The applicant shall install mechanical composite sampling equipment and continuous flow measuring / recording devices on the effluent drains of trade as well as domestic effluent. A record of daily discharge shall be maintained.
- The following information shall be forwarded to the Member Secretary on or before 10<sup>th</sup> of every month.
  - Performance / progress of the treatment plant.
  - b) Monthly statement of daily discharge of domestic and/or trade effluent.
  - Non-compliance with effluent limitations
    - a) If for any reason the applicant does not comply with or is unable to comply with any effluent limitations specified in this consent, the applicant shall immediately notify the consent issuing authority by telephone and provide the consent issuing authority with the following information in writing within 5 days of such notification.
      - i) Causes of non-compliance
      - ii) A description of the non-compliance discharge including its impact on the receiving waters.
      - iii) Anticipated time of continuance of non-compliance if expected to continue or if such condition has been corrected the duration or period of noncompliance.
      - iv) Steps taken by the applicant to reduce and eliminate the non-complying discharge and
      - v) Steps to be taken by the applicant too prevent the condition of non-compliance.
    - b) The applicant shall take all reasonable steps to minimize any adverse impact to natural waters resulting from non-compliance with any effluent limitation specified in this consent including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.
    - c) Nothing in this consent shall be construed to relieve the applicant from civil or criminal penalties for non-compliance whether or not such non-compliance is due to factors beyond his control, such as break-down, electric failure, accident or natural disaster.
- 6. The applicant shall at his own cost get the effluent samples collected both before and after treatment and get them analysed at an approval laboratory every month for the parameters indicated in Part-D and shall submit in duplicate the report thereof to the Board.
- 9. The addition of various treatment chemicals should be done only with mechanical dozers and proper equipment for regulation of correct dosages determined daily and for proper uniform feeding. Crude practices such as dumping of chemicals in drains or sumps or trickling of acids or alkalies arbitrarily and utilizing poles for stirring etc. should not be resorted to.
  - 10. In the disposal of treated effluent on land for irrigation, the industry shall keep in view of the need for,
    - a) Rotation of crops
    - b) Change of point of application of effluent on land
    - c) A portion of land kept fallow
  - 11. The adoption of these would avoid soil becoming sick or slate, the industry may ensure this in consultation with the Agriculture Department.
  - 12. It is the sole responsibility of the industry to ensure that there are no complaints at any time from the royats in the surrounding areas as a result of discharge of sewage or trade effluent if any.
  - 13. Proper housekeeping shall be maintained by a dedicated team.
  - 14 The industry must constitute a team of responsible and technically qualified personnel who will ensure continuous operation of all pollution control devices round the clock (including night hours) and should be in a position to explain the status of operation of the pollution control measures to the inspecting officers of the Board at any point of time. The name of these persons with their contact telephone numbers shall be intimated to the concerned. Regional Officer and Head Office of the Board and in case of any change in the team it shall be intimated to the Board immediately.



# E. SPECIAL CONDITIONS:

- 1. This consent order is subject to compliance of orders of the Hon'ble Supreme Court of India in the matter of W. P. (Civil) 114/2014.
- 2. This consent order is subject to permission from Steel and Mines Department, Government of Odisha for continuing of mining operation.
- 3. Mining operation is subject to availability of all other statutory clearances.
- 4. The quantity of production shall be determined on monthly pro-rata basis from the date of issue of the consent order dated 11.08.2023. If the date of issue is before 15<sup>th</sup> of the month, then the entire month will be considered for calculation, otherwise the quantity shall be determined from the next month on pro-rata basis.
- 5. Drills shall either be operated with dust extractors or equipped with water injection system to minimize dust generation in the work environment.
- 6. Controlled blasting shall be practiced to minimize generation of dust and fly rocks.
- 7. Regular water sprinkling shall be carried out in critical areas prone to air pollution such as around crushing and screening plant, haul roads, approach road, active OB dumps and mine benches at frequent interval so that it should always remain in wet condition.
- 8. Haulage roads shall be devoid of ruts and potholes and shall be maintained properly to avoid generation of dust during movement of vehicles.
- 9. No additional crusher plant and screening plant shall be installed within mine lease area, other than the crusher plant and screen plant specified in this Consent Order.
- 10. Dust suppression measures preferably dry fog system shall be provided at all appropriate places of mineral handling plants (crusher & screening plant). Loading the unloading areas including all the transfer points shall also have efficient dust suppression arrangements (dry fog system). These shall be properly maintained and operated.
- 11. Mechanized wheel washing facility for the ore transport vehicles shall be provided at the exit point of the mine. The wheel washing facility shall be integrated with complete recirculation system.
- 12. The vehicles carrying ore for transportation from the mine shall be covered with tarpaulin (both bottom & top).
- 13. Regular water sprinkling on mineral transportation roads passing through the habitation area as well as other strategic point on the National Highway shall be done jointly by the mining lessees in consultation with the Regional Officer. Adequate dust suppression measures shall also be done on the haul road connecting from mine pit (North) to SH-10 (2 Km) during plying vehicles.



- 14. Four Ambient Air Quality Monitoring Stations shall be established in core zone and buffer zone for monitoring of ambient air quality and location of the stations shall be decided in consultation with the Regional Officer, State Pollution Control Board based on the metrological data, topographical features and environmentally and ecologically sensitive targets.
- 15. The monitoring of ambient air quality shall be carried out twice in a week (24 hourly) at a particular site and the consolidated data shall be submitted to the State Pollution Control Board, once in a year.
- 16. The ambient air quality shall remain within prescribed national ambient air quality standards.
- 17. Fugitive Dust Emission Monitoring shall be carried out at the places as stated in Part-B of this order. The monitoring of fugitive dust shall be carried out twice in a week (24 hourly) at a particular site and consolidated data shall be submitted to the State Pollution Control Board, once in a year.
- 18. The top soil generated shall be stored at earmarked site (s) only and stabilized with plantation or shall be used for land reclamation and plantation.
- 19. The over burden generated during the course of mining shall be stacked at earmarked dump site (s) and stabilized with plantation or used for reclamation of excavated land followed by plantation.
- 20. The project proponent shall ensure that no natural watercourse and / or water resources are obstructed due to any mining operations. In case of diversion of natural watercourse, this shall be done with prior permission of the competent authority.
- 21. Adequate control measures shall be taken to prevent flow of sediments with the runoff water to nearby natural streams of the mine lease area or passes through the lease.
- 22. The mine shall quantify the surface runoff based on maximum rainfall in the active mining area. The mine shall provide settling ponds of adequate size at strategic location for collection of runoff and settlement of suspended solids. The settled water shall be reused for dust suppression/plantation/wheel washing/workshop. In case of heavy rain and during monsoon, the excess settled shall be discharged to outside after meeting the prescribed standard for discharge to inland water surface [pH-5.5-9.0, SS-100 mg/l, O & G-10mg/l, Iron (as Fe)-3.0 mg/l].
- 23. Check dams and check weirs shall be constructed at appropriate places of the mine lease area to prevent direct flow of runoff to nearby water bodies. The surface run off water from the existing runoff management system shall meet the prescribed standards.



- 24. Retention wall shall be constructed at the toe of topsoil dump and OB dump. Garland drain shall be constructed around topsoil dumps, over burden dumps and mineral stack yards terminating at settling pit to prevent direct disposal of runoff to nearby water bodies.
- 25. Garland drain and sedimentation pit shall be de-silted after monsoon or as and when required.
- 26. Domestic effluents shall be treated in a sewage treatment plant (STP) and or shall be discharged to soak pit via septic tank constructed as BIS specification. The treated wastewater quality of STP shall remain within the following standards and shall be used for plantation:

| pН             | - | 6.5 -9.0          |
|----------------|---|-------------------|
| TSS            |   | <100 mg/l         |
| BOD            | - | 30 mg/l           |
| Fecal Coliform | - | <1000 MPN/100 ml. |

- 27. Regular monitoring of water quality of upstream and downstream of surface water bodies existed if any within 5 Km shall be carried out once in every month and record shall be maintained and submitted to the State Pollution Control Board once in every year. Monitoring shall be carried out through MoEF & CC accredited laboratory.
- 28. Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells. The monitoring should be done four times a year in premonsoon (April/May), monsoon (August), post-monsoon (November) and winter (January) seasons. Consolidated data thus collected should be submitted to the Board annually.
- 29. The mine shall take necessary action for compliance with the air and water quality standards as stipulated in Part-A and Part-B of this order.
- 30. Adequate measures shall be taken for control of noise levels in the work environment of mine area so that noise levels at the boundary line of mining lease area shall not exceed 75 dB(A) during day time (6.00 AM to 9.00 PM) and 70 dB(A) during night time (9.00 PM to 6 AM).
- 31. Adequate noise barriers shall be provided surrounding the crushing and screening plants to control noise pollution and avoid impact on wildlife due to operation of crushing and screening plants during night hours.
- 32. Online noise monitoring system shall be installed to monitor noise level during night hours.
- 33. Protective barriers shall be provided for the lights to prevent illumination towards the forest area during night hours.



- 34. Ambient air quality monitoring data, noise monitoring data and water / wastewater quality monitoring data shall be electronically displayed at the entry point of the mine or at a suitable location of the mine.
- 35. Plantation of trees shall be undertaken in the colony/ township, over top soil dumps, OB dumps, along the side of haul road and in other areas of the mines not being utilized for mining activities. The mine shall take up avenue plantation and plantation in nearby village areas in consultation with DFO/Horticulture Department. The annual plantation details shall be submitted to the Board by 30<sup>th</sup> April every year.
- 36. A copy of the annual return (annual return submitted to IBM, Govt. of India/ Directorate of Mines, Govt. of Odisha) shall be submitted to this Board every year.
- 37. The environmental statement report for the financial year ending 31<sup>st</sup>March shall be submitted to the Board in Form-V on or before 30<sup>th</sup>September every year.

MEMBER SECRETARY STATE POLLUTION CONTROL BOARD, ODISHA

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SRI JAYARAM PARIDA, BUSINESS HEAD BAGIABURU IRON ORE MINES OF M/S ORISSA MINERALS DEVELOPMENT COMPANY LIMITED. AT/PO:THAKURANI, BARBIL, ULIBURU, DIST: KEONJHAR, PIN-758035, ODISHA

/Dt.

Copy forwarded to :

Memo No.

- i) Regional Officer, State Pollution Control Board, Keonjhar.
- ii) District Collector, Keonjhar
- iii) Director of Mines, Govt. of Odisha, Bhubaneswar
- iv) Director, Environment -cum-Special Secretary, F & E. Deptt. Govt. of Odisha, Bhubaneswar.
- v) D.F.O., <u>Keonjhar</u>
- vi) Deputy Director of Mines, Joda
- vii) Chief Env. Scientist, Central Lab. SPCB, Bhubaneswar
- viii) Addl. Chief Env. Engineer (Hazardous Waste Management Cell)
- ix) Consent Register

CHIEF ENV. ENGINEER (M) STATE POLLUTION CONTROL BOARD, ODISHA



# GENERAL STANDARDS FOR DISCHARGE OF ENVIRONMENTAL POLLUTANTS



# GENERAL STANDARDS FOR DISCHARGE OF ENVIRONMENTAL POLLUTANTS PART –A : EFFLUENTS

| SI. No. | Parameters   | Standards  |               |                        |  |  |  |
|---------|--|--|---------------|------------------------|--|--|--|
|         |  | Inland surface   | Public sewers | Land for<br>irrigation | Marine Costal Areas  |  |  |
|         |  | (a)  | (b)           | (c)                    | (d)  |  |  |
| 1.      | Colour&odour   | Colourless/<br>Odourless as far<br>as practible            |               | See 6 of<br>Annex-1    | See 6 of Annex-1   |  |  |
| 2.      | Suspended Solids (mg/l)  | 100  | 600           | 200                    | <ul> <li>a. For process<br/>wastewater – 100</li> <li>b. For cooling water effluent<br/>10% above total<br/>suspended matter of<br/>influent.</li> </ul> |  |  |
| 3.      | Particular size of SS  | Shall pass 850   |               |                        |  |  |  |
| 5.      | pH value   | 5.5 to 9.0   | 5.5 to 9.0    | 5.5 to 9.0             | 5.5 to 9.0   |  |  |
| 6.      | Temperature  | Shall not exceed 5°C above the receiving water temperature |               |                        | Shall not exceed 5°C above<br>the receiving water<br>temperature   |  |  |
| 7.      | Oil & Grease mg/l max.   | 10   | 20            | 10                     | 20   |  |  |
| 8.      | Total residual chlorine  | 1.0  |               |                        | 1.0  |  |  |
| 9.      | Ammonical nitrogen (as N) mg/l max.                            | 50   | 50            |                        | 50   |  |  |
| 10.     | Total Kajeldahl nitrogen<br>(as NH <sub>3</sub> ) mg/1 max.    | 100  |               |                        | 100  |  |  |
| 11.     | Free ammonia (as NH <sub>3</sub> )<br>mg/1 max.                | 5.0  |               |                        | 5.0  |  |  |
| 12.     | Biochemical Oxygen 30<br>Demand (5 days at<br>(20°C) mg/1 max. |  | 350           | 100                    | 100  |  |  |
| 13.     | Chemical Oxygen<br>Demand, mg/1 max.                           | 250  |               |                        | 250  |  |  |
| 14.     | Arsenic (as As) mg/1<br>max.                                   | 0.2  | 0.2           | 0.2                    | 0.2  |  |  |
| 15.     | Mercury (as Hg) mg/1<br>max.                                   | 0.01   | 0.01          |                        | 0.001  |  |  |
| 16.     | Lead (as pb) mg/1 max.   | 01.  | 1.0           |                        | 2.0  |  |  |
| 17.     | Cardmium (as Cd) mg/1<br>max.                                  | 2.0  | 1.0           |                        | 2.0  |  |  |

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# CONSENT ORDER BAGIABURU IRON ORE MINES OF M/S OMDC LIMITED

|         | Demandare  | Standards   |  |  |   |  |
|---------|--|---|--|--|---|--|
| il. No. | Parameters   | Inland surface  | Public sewers  | Land for<br>irrigation   | Marine Costal Areas                                 |  |
|         |  |   | (b)  | (c)  | (d)   |  |
|         |  | (a)   |  |  | 1.0   |  |
| 18.     | Hexavalent Chromium<br>(as Cr + 6) mg/l max.                                   | 0.1   | 2.0  |  | 2.0   |  |
| 9.      | Total Chromium (as Cr)<br>mg/l max.  | 2.0   | 2.0  |  | 3.0   |  |
| 20.     | Copper (as Cu) mg/l<br>max.  | 3.0   | 3.0  |  |   |  |
| 21.     | Zinc (as Zn) mg/l max.   | 5.0   | 15   |  | 15  |  |
| 21.     | Selenium (as Sc) mg/l  | 0.05  | 0.05   |  | 0.05  |  |
| 23.     | max.<br>Nickel (as Nil) mg/l max.  | 3.0   | 3.0  |  | 5.0   |  |
| 24.     | Cyanide (as CN) mg/l   | 0.2   | 2.0  | 0.2  | 0.02  |  |
| 25.     | max.<br>Fluoride ( as F) mg/l  | 2.0   | 15   |  | 15  |  |
| 26.     | max.<br>Dissolved Phosphates   | 5.0   |  |  |   |  |
| 27.     | (as P) mg/l max.<br>Sulphide (as S) mg/l                                       | 2.0   |  |  | 5.0   |  |
| 28.     | max.<br>Phennolic compounds<br>as (C <sub>6</sub> H <sub>5</sub> OH) mg/l max. | 1.0   | 5.0  |  | 5.0   |  |
| 29.     | Radioactive materials<br>a. Alpha emitter micro                                | 10 <sup>7</sup>   | 10 <sup>7</sup>  | 10 <sup>8</sup>  | 10 <sup>7</sup>                                     |  |
|         | curle/ml.<br>b. Beta emitter micro<br>curle/ml.                                | 10 <sup>6</sup>   | 10 <sup>6</sup>  | 10 <sup>7</sup>  | 10 <sup>6</sup>                                     |  |
| 30.     | Bio-assay test   | 90% survival of<br>fish after 96<br>hours in 100%<br>effluent | 90% survival<br>of fish after<br>96 hours in<br>100%<br>effluent | 90% survival<br>of fish after<br>96 hours in<br>100%<br>effluent | 90% survival of fish after<br>hours in 100% effluen |  |
| 31      | Manganese (as Mn)  | 2 mg/l  | 2 mg/l   |  | 2 mg/l  |  |
| 32.     | Iron (Fe)  | 3 mg/l  | 3 mg/l   |  | 3 mg/l  |  |
| 33.     | Vanadium (as V)  | 0.2 mg/l  | 0.2 mg/l   |  | 0.2 mg/l  |  |
| 34.     | Nitrate Nitrogen   | 10 mg/l   |  |  | 20 mg/l   |  |



# NATIONAL AMBIENT AIR QUALITY STANDARDS

| SI. | Pollutants  | Time Concentrate of Ambient Air     |   |  |  |  |  |
|-----|---|-------------------------------------|---|--|--|--|--|
| No. |   | Weighed<br>Average                  | Industrial<br>Residential,<br>Rural and<br>other Area | Ecologically<br>Sensitive<br>Area (notified<br>by Central<br>Government) | Methods of Measurement   |  |  |
| (1) | (2)   | (3)                                 | (4)   | (5)  | (6)  |  |  |
| 1   | Sulphur Dioxide<br>(SO <sub>2</sub> ), μg/m <sup>3</sup>                                  | Annual *<br>24 Hours **             | 50<br>80  | 20<br>80   | -Improved west and Gaeke   |  |  |
| 2.  | Nitrogen Dioxide<br>(NO <sub>2</sub> ), μg/m <sup>3</sup>                                 | Annual *<br>24 Hours **             | 40  | 30<br>80   | - Modified Jacob &Hochheiser<br>( Na-Arsenite)   |  |  |
| 3.  | Particulate Matter<br>(size less than<br>10µm) or PM <sub>10</sub> µg/m <sup>3</sup>      | Annual *<br>24 Hours **             | 60<br>100   | 60<br>100  | - Chemiluminescence<br>-Gravimetric<br>- TOEM  |  |  |
| 4.  | Particulate Matter<br>(size less than<br>2.5µm) or<br>PM <sub>2.5µ</sub> g/m <sup>3</sup> | Annual *<br>24 Hours **             | 40 60   | 40   | - Beta Attenuation<br>-Gravimetric<br>- TOEM<br>- Beta Attenuation   |  |  |
| 5.  | Ozone (O <sub>3</sub> ) μg/m <sup>3</sup>   | 8 Hours **<br>1 Hours **            | 100<br>180  | 100<br>180   | - UV Photometric<br>- Chemiluminescence<br>- Chemical Method   |  |  |
| 6.  | Lead (Pb) μg/m <sup>3</sup>   | Annual *<br>24 Hours **             | 0.50  | 0.50   | -AAS/ICP method after<br>sampling on EMP 2000 or<br>equivalent filter paper.<br>- ED-XRF using Teflon filter |  |  |
| 7.  | Carbon Monoxide<br>(CO) mg/m <sup>3</sup>   | 8 Hours **                          | 02  | 02   | - Non Dispersive Infra Red<br>(NDIR)   |  |  |
| 8.  | Ammonia (NH₃)<br>μg/m³  | 1 Hours **<br>Annual*<br>24 Hours** | 04<br>100<br>400                                      | 04<br>100<br>400   | Spectroscopy<br>-Chemiluminescence<br>- Indophenol Blue Method   |  |  |
| 9.  | Benzene (C <sub>6</sub> H <sub>6</sub> )<br>μg/m <sup>3</sup>                             | Annul *                             | 05  | 05   | -Gas Chromatography based<br>continuous analyzer<br>- Adsorption and Desorption<br>followed by GC analysis   |  |  |
| 10. | Benzo (a) Pyrene<br>(BaP)-Particulate<br>phase only, ng/m <sup>3</sup>                    | Annual*                             | 01  | 01   | -Solvent extraction followed<br>by HPLC/GC analysis  |  |  |
| 11. | Arsenic (As), ng/m <sup>3</sup>   | Annual*                             | 06  | 06   | -AAS/ICP method after<br>sampling on EPM 2000 or<br>equivalent filter paper                                  |  |  |
| 12. | Nickel (Ni),ng/m <sup>3</sup>   | Annual*                             | 20  | 20   | -AAS/ICP method after<br>sampling on EPM 2000 or<br>equivalent filter paper                                  |  |  |

\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\* 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year, 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.