



REGIONAL OFFICE
STATE POLLUTION CONTROL BOARD, ODISHA
(DEPARTMENT OF FOREST & ENVIRONMENT, GOVT. OF ODISHA)
Plot No. 370/5971, At – Babubagicha (Cox Colony), St. Marry Hospital Road,
Post – Industrial Estate, Jharsuguda- 768 203

“By Registered Post/Through odocmms”

No.....403...../IND-V-CON-04/2020

Date..13/03./2024

CONSENT ORDER

CONSENT ORDER NO. RO/SPCB/JSG/APC & WPC – 011

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 application No. 5347498, dtd.09.01.2024.

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: **M/s. Kanika Railway Siding of Basundhara – Garjanbahal Area (Mahanadi Coalfields Limited)**

Name of the Occupier & Designation: **Project Officer, Garjanbahal OCP of M/s. MCL**

Address: **At: Kanika, PO: Hemgir Road, Tahasil & P.S: Hemgir, Dist: Sundargarh.**

This consent order is valid for the period from **01.04.2024** up to **31.03.2025**.

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

A. Details of products manufactured:

Sl. No.	Product	Quantity (T/Annum)
1.	Handling of Coal	80,00,000

P.T.O

B. Discharge permitted through the following outlet subject to the standard

Outlet No.	Description of outlet	Point of discharge	Quantity of discharge KLD or KL/hr.	Prescribed standard
1.	Domestic Effluent/Wash Water	Soak pit/land		

C. Emission permitted through the following stack subject to the prescribed standard.

Chimney Stack No.	Description of stack	Stack height (m)	Quantity of emission	Prescribed standard

D. Disposal of solid waste permitted in the following manner

Sl. No.	Type of Solid waste	Quantity generated (TPD)	Quantity to be reused on site (TPD)	Quantity to be reused off site (TPD)	Quantity disposed off (TPD)	Description of disposal site.

E. GENERAL CONDITIONS FOR ALL UNITS

1. The consent is given by the Board in consideration of the particulars given in the application. Any change of alternation or deviation 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 Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations deemed fit for the purpose of the Acts.
2. The industry would immediately submit revised application or consent to operate to the Board in the event of any change in the 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.
3. The applicant shall not change or alter either the quality or quantity of the rate of discharge or temperature or the route of discharge without the previous written permission of the Board.
4. The application shall comply with and carry out the directives/orders issued by the Board in this consent order and at all subsequent 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.
5. The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order.
6. The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation.
7. This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any natural water course.
8. The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.
9. An inspection book shall be opened and made available to Board's Officers during the visit to the factory.
10. The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the 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.
11. Meters must be affixed at the entrance of the water supply connection so that such meters are easily accessible for inspection and 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.

12. 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
13. The applicant shall display suitable caution board at the place where the effluent is entering into any water-body or any other place to be indicated by the Board, indicating therein that the area into which the effluents are being discharged is not fit for the domestic use/ bathing.
14. Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.
15. The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall 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.
16. The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems install or used by him to achieve with the term(s) and conditions of the consent.
17. Care should be taken to keep the anaerobic lagoons, if any, biologically active and not utilized as mere stagnation ponds. The anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed with sides and bottom made impervious.
18. The utilization of treated effluent on factory's own land, if any, should be completed and there should be no possibility of the effluent gaining access into any drainage channel or other water courses either directly or by overflow.
19. The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at any time.
20. If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a matter or dispute, the industry must adopt alternate satisfactory treatment and disposal measures.
21. The sludge from treatment units shall be dried in sludge drying beds and the drained liquid shall be taken to equalization tank.
22. The effluent treatment units and disposal measures shall become operative at the time of commencement of production.
23. The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling and provide 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.
24. The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples/stack monitoring/inspection.
25. 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, without the previous written permission of the Board.
26. No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of the Board.
27. The satisfaction the liquid effluent arising out of the operation of the air pollution control equipment shall 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 amended).
28. The stack monitoring system employed by the applicant shall be opened for inspection to this Board at any time.
29. There shall not be any fugitive or episodal discharge from the premises.
30. 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 the notice of the Board within 24 hours of occurrence.
31. 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 made easily accessible at all times.
32. Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of air 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.
33. 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 of industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area.
34. 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 as not to cause fugitive emission, dust problems through leaching etc, of any kind.

35. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by:
 - i) Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.
 - ii) Controlled incineration, wherever possible in case of combustible organic material.
 - iii) Composting, in case of bio-degradable material.
36. 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 persons only. Latter of authorization shall be obtained for handling and disposal of hazardous waste.
37. 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 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.
38. The applicant, his/heirs/legal representatives or assignees shall have no claim whatsoever to the condition or renewal of this consent after the expiry period of this consent.
39. The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.
40. Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under 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.
41. The conditions imposed as above shall continue to be in force until revoked under section 27(2) fo the Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981.
42. In case the consent fee is revised upward during this period, the industry shall pay the differential fees to the Board (for the remaining 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.
43. The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/stipulate additional conditions as deemed appropriate.

F. SPECIAL CONDITIONS:

1. Under no circumstances there shall be any discharge of coal dust/fines contaminated waste water outside the railway siding premises. Discharge of coal dust/fines contaminated waste water in the surrounding area shall be stopped by operating the pump provided at the discharge point regularly till the installation of full-fledged ETP.
2. The unit shall adopt adequate dust suppression measures at the potential dust generating points and provide water sprinkling arrangement for the suppression of dusts.
3. The internal roads shall be concreted/ black topped. All entry point, internal roads and loading/unloading areas must be concreted for movement of heavy vehicles and permanent fixed type water sprinkling system of adequate capacity shall be installed along the internal roads to minimise potential for dust generation and off-site impact. In case the road condition deteriorated due to movement of heavy vehicle, the unit shall repair the same and there shall be no public inconvenience.
4. Regular cleaning and wetting of the approach road connecting the railway siding and Duduka-Kanika Road shall be done & monitored by a dedicated team of mine authority.
5. The unit shall develop a monitoring system to ensure adequate dust suppression round the clock
6. A boundary wall of at least 3-meter height shall be constructed along the periphery of the mineral stack yard to prevent the fine particles from being carried away with surface run off to nearby water bodies.
7. The height of material within storage areas must be kept below the height of the boundary wall at all times to prevent the material getting air borne.

8. All mineral storage areas containing fine or dusty materials must be either:
 - covered with tarpaulins when not in use, or
 - fitted with Automatic Water Sprinkling / Dry fog systems.
9. Green belt of adequate width shall be developed immediately all around the perimeter of material storage and loading areas which are located in close proximity to villages and residential areas.
10. Planting of trees all along the connecting road shall be made and regular grading of such road shall be carried out to prevent generation of dust due to movement of dumpers/trucks.
11. Adequate care shall be taken to prevent creation of ruts and pot holes in the connecting roads.
12. Proper housekeeping at the material storage areas, loading & dispatch areas, service facilities, etc., shall be practiced.
13. Wheel wash facilities shall be provided to minimize the carrying of mud by the wheel onto the approach road & public roads during rains.
14. The mine shall deploy Mechanical Sweepers and engage a dedicated team exclusively for regular cleaning and wetting of the public road/MDR road from Kanika Railway siding to Kulda OCP and Garjanbahal OCP which is about 30 Km, by using fog cannons/water tankers.
15. At the material storage areas, atomized stationery mist spray of water or conditioning of material with water shall be practiced to prevent the dust getting air borne.
16. Sprinkler systems shall be maintained in an operable condition at all times.
17. Appropriate preventive measures shall be taken for control of fire hazards at the railway siding handling coal.
18. The operator's cabin in the dumpers and trucks shall be provided with dust proof enclosure and the persons working at high dust prone areas shall be provided with dust mask.
19. Smoke emission from heavy duty vehicle operating in the railway siding shall conform to the standards prescribed under the Motor Vehicle Rules, 1989.
20. Ambient Air Quality inside the premises shall conform to the National Ambient Air Quality Standard prescribed for industrial and mixed used area under EP Act, 1986.
21. Domestic effluent shall be discharged to soak pit through septic tank constructed as per BIS specification.
22. Garland drain shall be provided along the boundary at the appropriate place depending on the slope of the area inside the mineral stack yard. Provision shall be made for collection of wash water from the garland drain and water, so collected shall be treated in a sedimentation tank for further use inside the premises for green belt or water sprinkling etc. Under no circumstances, the wash water shall be allowed to go outside the premises.
23. In case the waste water contains any substance, which is harmful to the environment, the same shall be treated to remove the substance so as to meet the prescribed norms.
24. Speed limit of dumpers/trucks used for loading / unloading of materials shall not exceed 10 kmph. Overloading of vehicles shall be avoided.
25. Occupiers of the Railway siding shall ensure that vehicles used have valid "Pollution Under Control (PUC)" certificate.
26. During transportation of material by trucks / tippers / wagons through public roads, the vehicles shall be properly covered with tarpaulin sheets and shall ply in safe speed. The

trucks/tippers shall have sufficient free board. Spillage of material on public roads shall be cleared immediately on occurrence.

27. Provisions of the E (P) Act, 1986 and the relevant rules framed there under, shall be applicable where necessary.
28. The railway sidings shall submit an annual return to Regional Office in the prescribed format by 30th April of every year incorporating the quantities and type of material handled during the preceding financial year (i.e. 1st April to 31st March).
29. The environmental statement report for the financial year ending 31st March shall be submitted to the Board in form V on or before 30th September every year.
30. The rejected materials or other solid wastes shall not be stored in the railway siding for long time and the same shall be removed immediately to the solid waste disposal site.
31. The unit shall develop the waste water collection system in the rainy season and the surface runoff shall not enter to the nearby agricultural land under any circumstances.
32. In case of any public complaint found to be genuine the facility shall be stopped immediately till rectification is made.
33. The unit shall comply the provisions of all other respective Acts and Rules relating to Mines and Forest, etc. of the Govt. of Odisha and India.

The occupier must comply with the conditions stipulated in section A, B, C, D, E & F to keep this consent order valid.

To

The Project Officer,
Garjanbahal OCP of M/s. MCL
At/Po: Basundhara, Hemgir,
Dist: Sundargarh - 770076

Handwritten signature and date: 13.3.24

**REGIONAL OFFICER
STATE POLLUTION CONTROL BOARD, ODISHA, JHARSUGUDA**

Memo No.....404...../Dt...13/03/2024..1

Copy forwarded to:

- i) **DM & Collector, Sundargarh**
- ii) **Chief Environmental Scientist (M), S.P.C. Board, Odisha, Bhubaneswar**
- iii) **Deputy Director of Mines, Sundargarh**
- iv) **D.F.O., Sundargarh**
- v) **Guard file, Regional Office, Jharsuguda**

Handwritten signature and date: 13.3.24

**REGIONAL OFFICER
STATE POLLUTION CONTROL BOARD, ODISHA, JHARSUGUDA**

General Standards for discharge of environment pollutant

Part-A: Effluents

Sl. No	Parameters	Standards			
		Inland surface	Public sewers	Land for irrigation	Marine Coastal Areas
1	2	3			
		(a)	(b)	(c)	(d)
1	Colour & odour	Colourless/ Odourless as far as practicable	-----	See 6 of Annex-1	See 6 of Annex-1
2	Suspended Solids (mg/l)	100	600	200	a. For process wastewater-100 b. For cooling water effluent 10% above total suspended matter of influent.
3	Particular size of SS	Shall pass 850	-----	-----	
4	-----	-----	-----	-----	
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 the receiving water 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 Kjeldahl nitrogen (as NH ₃) mg/l max.	100	-----	-----	100
11	Free Ammonia (as NH ₃) mg/l max.	5.0	-----	-----	5.0
12	Biochemical Oxygen Demand (3 days at (27°C) mg/l max.	30	350	100	100
13	Chemical Oxygen Demand, mg/l max.	250	-----	-----	250
14	Arsenic (as As) mg/l max.	0.2	0.2	0.2	0.2
15	Mercury (as Hg) mg/l max.	0.01	0.01	-----	0.001
16	Lead (as Pb) mg/l max.	01.	1.0	-----	2.0
17	Cadmium(as Cd) mg/l max.				
18	Hexavalent Chromium (as Cr+6) mg/l max.	0.1	2.0	-----	1.0
19	Total Chromium (as Cr) mg/l max.	2.0	2.0	-----	2.0
20	Copper (as Cu) mg/l max.	3.0	3.0	-----	3.0
21	Zinc (as Zn) mg/l max.	5.0	15	-----	15
22	Selenium (as Se) mg/l max.	0.05	0.05	-----	0.05
23	Nickel (as Nil) mg/l max.	3.0	3.0	-----	5.0
24	Cyanide (s CN) mg/l max.	0.2	2.0	0.2	0.02
25	Fluoride (as F) mg/l max.	2.0	15	-----	15
26	Dissolved Phosphates (as P) mg/l max.	5.0	-----	-----	-----
27	Sulphide (as S) mg/l max.	2.0	-----	-----	5.0
28	Phenolic compounds (as C ₆ H ₅ OH) mg/l max.	1.0	5.0	-----	5.0
29	Radioactive Materials a. Alpha emitter micro curie/ml. b. Beta emitter micro curie/ml.	10 ⁷ 10 ⁶	10 ⁷ 10 ⁶	10 ⁸ 10 ⁷	10 ⁷ 10 ⁶
30	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent
31	Manganese (as Mn)	2 mg/l	2 mg/l	-----	2 mg/l
32	Iron (as 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

Sl. No.	Pollutant	Time weighted Average	Concentration in Ambient Air		
			Industrial Residential Rural & Other area	Ecologically sensitive Area (notified by Central Government)	Method of Measurement
1	2	3	4	5	6
1.	Sulphur Dioxide (SO ₂) µg/m ³	Annual *. 24 Hours**	50 80	20 80	- Improved West and Gaeke method - Ultraviolet Fluorescence
2.	Nitrogen Dioxide (NO ₂), µg/m ³	Annual *. 24 Hours**	40 80	30 80	- Modified Jacob and Hochheiser Na-Arsenite) - Chemiluminescence
3.	Particulate Matter (size less than 10 µg/m ³) or PM ₁₀ µg/m ³	Annual *. 24 Hours**	60 100	60 100	- Gravimetric - TOEM - Beta Attenuation
4.	Particulate Matter (size less than 2.5 µg/m ³) or PM _{2.5} µg/m ³	Annual *. 24 Hours**	40 60	40 60	- Gravimetric - TOEM - Beta Attenuation
5.	Ozone (O ₃) µg/m ³	8 Hours** 1 Hour**	100 180	100 180	- UV Photometric - Chemiluminescence - Chemical Method
6.	Lead (Pb) µg/m ³	Annual *. 24 Hours**	0.50 1.0	0.50 1.0	-AAS/ICP method after sampling on EMP 2000 or equivalent filter paper. -ED-XRF using Teflon filter.
7.	Carbon Monoxide (CO) mg/m ³	8 Hours** 1 Hour**	02 04	02 04	-Non Dispersive Infra Red (NDIR) Spectroscopy
8.	Ammonia (NH ₃) µg/m ³	Annual *. 24 Hours**	100 400	100 400	- Chemiluminescence - Indophenol Blue Method
9.	Benzene (C ₆ H ₆) µg/m ³	Annual *.	05	05	- Gas Chromatography based continuous analyzer - adsorption and Desorption followed by GC analysis.
10.	Benzo (a) Pyrene (BaP) – Particulate phase only, mg/m ³	Annual *	01	01	- Solvent extraction followed by HPLC/GC analysis.
11.	Arsenic (As), µg/m ³	Annual *	06	06	- AAS/ICP method after samplign on EMP 2000 or equivalent filter paper.
12.	Nickel (Ni), µg/m ³	Annual *	20	20	- AAS/ICP method after samplign on EMP 2000 or equivalent filter paper.

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

** 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.