



Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The Director
JINDAL COKE LIMITED
Kalinga Nagar Industrial Complex, Duburi, Dist - Jajpur,,Jajpur,Orissa-
755026

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/OR/IND/261427/2021 dated 25 Mar 2022. The particulars of the environmental clearance granted to the project are as below.

- | | |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. EC Identification No. | EC22A008OR150400 |
| 2. File No. | No.IA-J-11011/111/2018-IA-II(I) |
| 3. Project Type | Expansion |
| 4. Category | A |
| 5. Project/Activity including Schedule No. | 3(a) Metallurgical industries (ferrous & non ferrous) |
| 6. Name of Project | Expansion of Coke Production From 0.425 MTPA to 0.78 MTPA by Installation of a New Stamp Charged By Product Recovery Type Coke Oven Within The Existing Plant at Kalinga Nagar |
| 7. Name of Company/Organization | JINDAL COKE LIMITED |
| 8. Location of Project | Orissa |
| 9. TOR Date | 27 Mar 2021 |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 09/05/2022

(e-signed)
Dr. R. B. Lal
Scientist E
IA - (Industrial Projects - 1 sector)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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PARIVESH

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and Virtuous Environment Single-Window Hub)



F. No. IA-J-11011/111/2018-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(I.A. Division – Industry I sector)

Indira Paryavaran Bhawan
Jor Bagh Road, Aliganj,
New Delhi – 110003

Dated: 9th May, 2022

To

Shri. S. S. Upadhyay,
Director,
M/s. Jindal Coke Limited,
Kalinga Nagar Industrial Complex, Duburi,
District Jajpur, Odisha - 755026
Email: envcell@jindalstainless.com; Tel: 06726 266260

Subject: Expansion of Coke production from 0.425 MTPA to 0.78 MTPA by installation of a new Stamp charged by-product recovery type Coke Oven Battery within the existing steel plant by M/s. Jindal Coke Limited located at Kalinga Nagar Industrial Complex, Village & Tehsil Danagadi, District Jajpur, Odisha – Environment Clearance regarding.

Sir,

This refers to your proposal no. **IA/OR/IND/261427/2021** dated **25/03/2022** submitted through PARIVESH Portal seeking for grant of **Environment Clearance (EC)** for the project mentioned above.

- As per the provisions of the Environment Impact Assessment (EIA) Notification, 2006, the above-mentioned project/activity is covered under category '**A**' of item **4(b) Coke oven plants of the EIA Notification, 2006 and appraised at Central Level.**
- Accordingly, the above-mentioned proposal has been considered in **3rd meeting of Expert Appraisal Committee (Industry-1 Sector) held on 11-12th April, 2022.** The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed at <https://parivesh.nic.in/>.
- The details of the proposal are as per the EIA report submitted by the proponent. The salient features of the proposal as presented during the above-mentioned meetings of EAC (Industry 1) are as under: -

S. No.	Particulars	Details			
a.	Terms of Reference for undertaking EIA study	27/03/2021			
b.	Period of baseline data collection	October 2020 to December 2020			
c.	Date of Public Consultation	26/11/2021			
d.	Action plan to address the PH issues	An amount of Rs. 565 Lakhs have been earmarked to address the issues raised during public hearing. Detail of activities proposed attached as Annexure 1.			
e.	Location of the project	Kalinga Nagar Industrial Complex, Village & Tehsil Danagadi, District Jajpur, Odisha			
f.	Latitude and Longitude of the project site	Point	Direction	Latitude	Longitude

S. No.	Particulars	Details			
		1	S	20°57'38.001" N	86°03'02.256" E
		2	NW	20°58'01.395" N	86° 2' 48.258" E
		3	NW	20°58'02.505" N	86° 2' 50.261" E
		4	N	20°58'00.390" N	86° 3' 00.072" E
		5	N	20°57'58.316" N	86° 3' 01.655" E
		6	N	20°57'58.655" N	86° 3' 2.312" E
		7	N	20°57'59.300" N	86° 3' 02.171" E
		8	N	20°57'59.575" N	86° 3' 2.616" E
		9	N	20°57'59.737" N	86° 3' 3.897" E
		10	N	20°57'59.614" N	86° 3' 4.99" E
		11	SE	20°57'37.290" N	86° 3' 18.251" E
		12	SE	20°57'36.794" N	86° 3' 17.265" E
		13	SE	20°57'42.797" N	86° 3' 13.684" E
		14	S	20°57'37.693" N	86° 3' 03.919" E
		15	S	20°57'38.548" N	86° 3' 03.481" E
g.	Total land	72.46 acre (29.324 ha) [Govt. Land]			
h.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	The proposed project does not require additional land and would be set up within the available vacant land area of 27 Acre within the existing plant boundary. Total land of 72.46 acre (29.324 ha) for the proposed project is already under the possession of the Company.			
i.	Existence of habitation & involvement of R&R, if any	There is no habitation and no involvement of R&R. Project site: Kalinga Nagar Industrial Complex			
		Habitation	Direction	Distance	
		Danagadi	East	2 km	
j.	Elevation of the project site	66 meters AMSL			
k.	Involvement of Forest land if any.	Not Applicable			
l.	Water body exists within the project site as well as study area	Project Site: No water body in the project site.			
		Study area:			
		Water body	Direction	Distance	
		Brahmani	South	7.3 km	
		Ganda Nala	East	3.6 km	
m.	Existence of ESZ / ESA / national park / wildlife Sanctuary / biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area	Nil			
n.	Project cost	Existing - INR 244 Crores Proposed – INR 470 Crores			
o.	EMP cost	Type	Capital (Rs. in Crores)	Recurring (Rs. in Crores)	
		Existing	58.5	1.6	
		Proposed	126.65	10.5	
		Total	185.15	12.1	
p.	Employment opportunity	During Construction - 240 Nos During Operations – 270 Nos			
q.	Water and Power requirement	Water – 3672 m ³ /day, Power – 10 MW			

Unit configuration and capacity:

S No	Plant Equipment/ Facility	Existing facilities as per EC dated 25/05/2018		Proposed Units		Final (Existing + Proposed)	
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity
1	Coke from Stamp charged coke oven batteries	64 ovens	0.425 MTPA	56 ovens	0.355 MTPA	64 ovens + 56 ovens	0.78 MTPA
2	Coke oven gas	-	21,941 Nm ³ /hr	-	18,327 Nm ³ /hr	-	40,268 Nm ³ /hr
3	Tar recovery unit	-	17,552 TPA	-	15,000 TPA	-	32,552 TPA
4	Aluminium sulphate plant	-	4,871 TPA	-	4,270 TPA	-	9,141 TPA
5	CDQ	-	-	-	120 TPH	-	120 TPH
6	Power from WHRB through CDQ	-	-	65 TPH	15 MW	65 TPH	15 MW

5. The EAC, in its 3rd meeting of Expert Appraisal Committee (Industry-1 Sector) held on 11-12th April, 2022, based on information & clarifications provided by the project proponent and after detailed deliberations recommended the proposal for grant of Environment Clearance subject to stipulation of specific and general conditions as detailed in the point below.
6. The MoEF&CC has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the Expert Appraisal Committee (Industry-1 Sector) hereby decided to grant Environment Clearance for instant proposal of **M/s. Jindal Coke Limited** under the provisions of EIA Notification, 2006 subject to the following specific conditions and general conditions:

A. Specific Conditions

- i. Coke Dry Quenching (CDQ) and Zero Liquid Discharge (ZLD) facilities shall be installed in the Coke Oven Plant as committed by PP.
- ii. Tar sludge from BOD plant of Coke Oven shall be reused in coke oven plant.
- iii. Coke Oven Gas shall be desulfurized.
- iv. Out of 24 acres area for green belt development, project proponent has developed green belt in 15 acres area. Remaining 9 acres area of green belt shall be completed by December, 2022. Three tier Green Belt shall be developed after consult with local forest department with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years.
- v. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
- vi. PM₁₀ values are almost near the threshold limit, the PP shall prepare and implement a project specific Air Quality Management Plan with best practices. Develop a control strategy and incorporates in the pollution control measures. Emission control measures related to transportation shall include with the use of cleaner fuels.
- vii. The progress made in the implementation of Corporate Environment Responsibility

- (CER) related activities shall be submitted along with six monthly compliance report to the concerned IRO and also be uploaded on the company web site.
- viii. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.
 - ix. All internal roads and connecting roads from project site to main highway shall be developed and maintained with suitable Million Axle Standard (MSA) as per the traffic load due to existing and proposed project.
 - x. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
 - xi. Particulate matter emission from stacks shall be less than 30 mg/Nm³.
 - xii. Following additional arrangements to control fugitive dust shall be provided:
 - a. Fog / Mist Sprinklers at all conveyors point and on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
 - b. Proper covered vehicle shall be used while transport of materials.
 - c. Wheel Washing mechanism shall be provided in entry and exit gates with complete recirculation system.

B. General Conditions:-

I. Statutory compliance:

- i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 04 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- iii. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.
- iv. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- v. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- vi. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- vii. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
- viii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
- ix. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).

- x. Land-based APC system shall be installed to control coke pushing emissions.
- xi. Monitor CO, HC and O₂ in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.
- xii. Vapor absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.
- xiii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- xiv. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.
- xv. Dry quenching (CDQ) system shall be installed along with power generation facility from waste heat recovery from hot coke.

III. Water quality monitoring and preservation

- i. The project proponent shall provide appropriate ETP for effluents discharged from coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to Coke oven plants) as amended from time to time.
- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- iv. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
- v. Water meters shall be provided at the inlet to all unit processes in the coke oven plants.

IV. Noise monitoring and prevention

- i. Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

V. Energy Conservation measures

- i. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- ii. Provide LED lights in their offices and residential areas.

VI. Waste management

- i. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.
- ii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

- i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration by trees.
- ii. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/balancing, carbon sequestration activities and carbon capture, use and storage and offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.
- iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages namely Siaria, Banshipur, Hudi Shai and Katipur.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

- viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. The Regional Office of this Ministry 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.
- xiv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
7. This issues with the approval of the Competent Authority.



(Dr. R. B. Lal)
Scientist 'E'/Additional Director
Tel: 011-20819346
Email-rb.lal@nic.in

Encl. as above at Annexure

Copy to: -

1. Secretary, Department of Environment, Government of Odisha, Secretariat, Bhubaneswar.
2. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
3. Regional Officer, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, A/3, Chandrasekharpur, Bhubaneswar – 751023.
4. Chairman, Odisha State Pollution Control Board, Parivesh Bhawan, A/118 Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012.
5. Chief Wildlife Warden, Govt. of Odisha, 5th Floor, BDA Apartments, Prakruti Bhawan, Nilakantha Nagar, Nayapalli, Bhubaneswar-751012
6. Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
7. District Collector, Jajpur District, Odisha.
8. Guard File/Record File/Monitoring File.
9. MoEF&CC Website/Parivesh portal.\



(Dr. R. B. Lal)
Scientist 'E'/Additional Director
Tel: 011-20819346
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Action plan as per MoEF&CC O.M. dated 30/09/2020

Major Issue Raised	Action Plan	Time Line for Execution			Total Budget (Lakhs)
		Year 1 st	Year 2 nd	Year 3 rd	
Area Development					
Development of park	Set up of park along with area development at two nos. of places.	Development of park with construction of tennis court at village panikoili.	Development of park at village Telibahali by construction of boundary wall, landscaping, Temple development	Continuation of Development work of park at village Telibahali by arrangement of permanent entire walkway, sitting arrangement.	180
Development of public community hall	New establishment of community hall at 5 nos. Of villages.	Set up in villages namely: Khurunti Malikasahi by providing new building with electrification.	Set up in villages namely: Ostapal by providing new building with electrification.	Set up in villages namely: Karadapal, Suanlo by providing new building with electrification.	60
Plantation activities in peripheral villages	Plantation drive at five numbers of village.	Village: Solei Actual area and number of tress to be decided based survey and discussion with local authorities. Report will be sent to MoEF & CC as a part of Half Yearly EC Compliance.	Village: Marutikar, Danagadi Actual area and number of tress to be decided based survey and discussion with local authorities. Report will be sent to MoEF & CC as a part of Half Yearly EC Compliance.	Village: Patrangi, Mantira: Actual area and number of tress to be decided based survey and discussion with local authorities. Report will be sent to MoEF & CC as a part of Half Yearly EC Compliance.	30
Medical Facilities					
Provision of health care facilities	Establishment of Homeopathic clinic at six numbers of villages.	At village: Kumbirgadia, Marutikar Construction of building for homeopathic clinic along with supply of essential medicines.	At village: Mantira, Olala Construction of building for homeopathic clinic along with supply of essential medicines.	At village: Tikara, Danagadi Construction of building for homeopathic clinic along with supply of essential medicines.	70
Local Employment					
Provide employment with preference to local people	Priority to be given for local employment during both construction and operation phase.	During Construction phase it is envisaged for Direct employment of 40 Nos. and Indirect employment of 200 Nos. & during operation phase direct employment of 150 Nos. and Indirect employment of 120 Nos.. During construction phase 70% indirect employment and 30 % direct employment will be through local employment. During operation phase 90 % indirect employment and 30% direct employment will be through local employment.			-
Education					
Renovation/Construction of additional new 2 Nos. of classrooms and electrification with sanitation facility at four nos. school.		At village : Danagadi	At village : Kharadi, Kankadajhar:	At village : JK Road	60
Facilitate students in providing special training on Stainless Steel related works to make		At : Ragadi Polytechnic College	Shall Continue	Shall Continue	15

Major Issue Raised	Action Plan	Time Line for Execution			Total Budget (Lakhs)
		Year 1 st	Year 2 nd	Year 3 rd	
knowledgeable in getting jobs in steel sector.					
Women Empowerment					
Strengthening of women empowerment measures in peripheral villages.	Focus on various livelihood programme for women empowerment in peripheral villages.	Livelihood promotion that includes tailoring, beauty parlor training, skill development training at village mantita.	Livelihood promotion that includes dairy farming, poultry, wheat goatery, grinding at village Lakhmapure.	Establishment of skill development center to provide training in Computer education, electrical, mechanical at village Trijanga.	150
Environment					
Air and Water pollution control	Effective APC devices to be in place during plant operation and set up of ETP for treatment of process effluent. No waste water discharge to be ensured.	Effective pollution control equipments with interlocking facilities with process to be in place for proposed expansion project. Continuous emission monitoring, ambient air quality monitoring and effluent quality monitoring to be done. Periodical Ambient air quality monitoring to be done in buffer zone of plant site.			As per EMP budget of plant
Total					565

