

F. No. J-11011/40/2009-IA II (I)
Government of India
Ministry of Environment, Forest and Climate Change
(I.A. Division)

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Dated: 6th December, 2016

To

M/s Bhushan Power and Steel Limited
15-17, Tolstoy Marg, 4th Floor, Tolstoy House,
Connaught Place, New Delhi-110019.

Subject: Expansion of Steel Plant [Crude Steel (3 MTPA to 5.5 MTPA)] along with CPP from 560 MW to 710 MW by M/s Bhushan Power and Steel Limited located at Village Thekoloji, Lapanga, Tehsil Rengali, District Sambalpur, Odisha – Environmental Clearance regarding.

Sir,

This has reference to your online application No. IA/OR/IND/27373/2014 Dated 6th April, 2015 along with copies of EIA and EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposal was initially received in the Ministry on 30.09.2014 for obtaining Terms of Reference (TORs), as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its meeting held on 14.11.2014 and prescribed TORs to the project for undertaking detailed EIA and EMP study for the purpose of obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed TORs to the project vide letter No. F. No.J-11011/40/2009-IA-II(I) dated 30th March, 2015. The ToRs were further amended for expansion to 5.5 MTPA crude steel production along with CPP from 560 MW to 710 MW by the EAC(I) during its meeting held on 01.06.2015. The revised ToRs were issued on 18.08.2015. The proposed project activity is listed at S.No. 3(a), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level. Earlier the Environmental Clearance was accorded by the Ministry for 2.2 MTPA steel plant vide letter No. J-11011/372/2006-IA.II(I) dated 29.03.2007. Further Environmental Clearance was accorded for the expansion of steel plant (2.2 to 2.8 MTPA) vide letter No. J-11011/40/2009-IA.II(I) dated 2nd April, 2010. Further amendment in Environmental Clearance was accorded by the Ministry for increase in the capacity of Steel Plant from 2.8 MTPA to 3.0 MTPA vide letter NO. J-11011/40/2009-IA.II(I) dated 17.10.2012.

2.0 The proposal is for enhancement of production of crude steel from 3.0 million tonnes per annum (million TPA) to 5.5 million TPA along with CPP from 560 MW to 710 MW. The total land required for the project is 284 ha, which has been acquired through IIDCO. No forestland involved. The entire land has been acquired for the project. It has been reported that water bodies exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The topography of the area is undulated and reported

to lies between 21° 37'30" to 21° 52'30" N Latitude and 83° 55'00" to 84° 07'30" E Longitude, at an average elevation of 150 m AMSL. Following table shows the configuration of the project:

Sl. No.	Facilities	EC Granted at 3.0 MTPA	Plant Configuration at 5.5 MTPA
1	Coal Washery	1 x 1.0 MTPA 1 x 3.5 MTPA	1 x 1.0 MTPA 1 x 3.5 MTPA
2	Beneficiation Plant	1 x 1200 TPH	1 x 1200 TPH
3	Pellet Plant	3.5 MTPA	4.0 MTPA
4	DRI Kiln	14 x 500 TPD	14 x 500 TPD
5	Coke Oven	2 x 0.45 MTPA (Non recovery type)	2 x 0.45 MTPA (Non recovery type)
		1 x 1.0 MTPA (Recovery Type)	1 x 1.2 MTPA (Recovery Type)
6	Sinter Plant	1 x 105 m ² 1 x 204 m ²	1 x 105 m ² 1 x 450 m ²
7	Blast Furnace	1 x 1008 m ³ 1 x 2015 m ³	1 x 1008 m ³ 2 x 2015 m ³
8	EAF	6 x 100 ton	6 x 100 ton
9	LF	6 x 100 ton	6 x 100 ton 2 x 250 ton*
10	IF	4 x 15 ton	-
11	Alloy Smelter	4 x 16 MVA	4 x 16 MVA
12	BOF	-	2 x 250 ton*
13	VD/AOD	2 x 100 ton	2 x 100 ton 2 x 250 ton*
14	RH	-	2 x 250 ton*
15	HMDP	-	2 x 250 ton*
16	Lime Plant	3 x 300 TPD 1 x 600 TPD	3 x 300 TPD 2 x 600 TPD
17	Dolo Plant	1 x 300 TPD 1 x 100 TPD	1 x 300 TPD 1 x 100 TPD 1 x 600 TPD
18	Oxygen Plant	1 x 400 TPD 1 x 660 TPD	1 x 400 TPD 1 x 660 TPD 1 x 1250 TPD
19	Billet Caster	(1 x 2) + (2 x 4) + (1 x 5) Strand	(1 x 2) + (2 x 4) + (1 x 5) Strand
20	Bloom Caster	1 x 2 Strand	2 x 2 Strand
21	Thin Slab Caster	2 x 1 Strand	3 x 1 Strand
22	CSP/ESP	1.8 MTPA	4.0 MTPA
23	Cold Rolling Mill	1.0 MTPA	2.5 MTPA
24	Pipe and Tube Mill	0.2 MTPA	0.8 MTPA
25	Galvanising/ Galvalume Line	0.5 MTPA	1.3 MTPA
26	Colour Coating Unit	0.45 MTPA	0.7 MTPA

27	Forging shop	-	-
28	Wire and Rod Mill	0.45 MTPA	0.45 MTPA
29	Heavy Bar and Rod Mill	0.55 MTPA	0.55 MTPA
30	Captive Power Plant	560 MW	710 MW
31	Cement Plant	1.0 MTPA	1.0 MTPA

3.0 The process of project is based on the conventional Blast Furnace (BF)-Basic Oxygen Furnace (BOF) route. The targeted production capacity of the integrated steel plant is 5.5 million TPA crude steel along with 710 MW CPP. The ore for the plant would be procured by local e-Auction. The ore transportation will be done through rail/road. The ground water table reported to ranges between 2.22 m - 6.28 m below the land surface during the post-monsoon season and 4.60 m - 8.84 m below the land surface during the pre-monsoon season. Further, the stage of groundwater development is reported to be 20% and thereby the area is designated as 'safe'. The water requirement of the expansion project is estimated as 45,720 m³ /day, which will be met from the backwater reservoir of Hirakud Dam from the present allocation. The power requirement of the expansion project is estimated as 236 MW, which will be obtained from captive generation.

4.0 There are 226 people in the core zone of the project. R&R is involved. It has been envisaged that 106 households to be rehabilitated, which will be provided compensation and preference in the employment.

5.0 It has been reported that a total of 1.1 million TPA of waste will be generated due to the project, which would be utilized in various processes of the steel plant or sold to outside agencies. It has been envisaged that an area of 94 ha will be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

6.0 The Public Hearing for the project was held on 17.02.2016 under the chairmanship of ADM, Sambalpur. The issues raised during public hearing *inter-alia* include employment, pollution etc.

7.0 The capital cost of the project is Rs. 9,090 Crores and the capital cost for environmental protection measures is proposed as Rs. 490 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 10 Crores. The proponent has mentioned that there is no court case to the project or related activity.

8.0 The proposal was considered during the 6th meeting of the Expert Appraisal Committee (Industry - I) held on 3rd - 4th May, 2016 and recommended the project for Environmental Clearance and stipulated Specific Conditions along with other environmental conditions while considering for accord of environmental clearance.

9.0 The Ministry of Environment, Forest and Climate Change has considered the application based on the recommendations of the Expert Appraisal Committee (Industry-I) and hereby decided to grant environmental clearance to the above mentioned steel plant expansion project [Crude Steel (3 MTPA to 5.5 MTPA) along with CPP from 560 MW to 710 MW] of M/s Bhushan Power and Steel Limited, under the provision of EIA Notification, 2006, as amended, subject to strict compliance of the following Specific and General conditions:

A. SPECIFIC CONDITION:

- i. The project proponent shall install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.
- ii. The project proponent shall prepare R&R plan for the affected households in the core zone, including compensation to be paid and employment to be provided and submit the same to the Regional Office of the Ministry of Environment, Forest and Climate Change, Bhubaneswar Odisha .
- iii. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³ and installing energy efficient technology.
- iv. Hot gases from DRI kiln shall be passed through Dust Settling Chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely. The gas then shall be cleaned in ESP before leaving out into the atmosphere through ID fan and stack.
- v. Efforts shall further be made to use maximum water from the rain water harvesting sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly. All the effluent should be treated and used for ash handling, dust suppression and green belt development. ETP sludge should be disposed off scientifically.
- vi. All the coal fines, char from DRI plant shall be utilized and no char shall be used for briquette making or disposed off anywhere else. Scrap shall be used in steel melting shop (SMS) and SMS slag and kiln accretions shall be properly utilized. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner.
- vii. All internal roads shall be black topped. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using native species shall be developed along the roads. Facilities for parking of trucks carrying raw coal from the linked coalmines shall be created within the Unit.
- viii. The Standards issued by the Ministry vide G.S.R. No. 277(E) dated 31st March, 2012 regarding integrated iron and steel plant shall be followed.
- ix. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- x. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide



G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.

- xi. Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.
- xii. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.
- xiii. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent.
- xiv. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, and use of solid/hazardous waste shall be submitted to the Ministry's Regional Office, SPCB and CPCB.
- xv. A time bound action plan shall be submitted to reduce solid waste generated due to the project related activity, its proper utilization and disposal.
- xvi. Utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 as amended. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Regional Office of the Ministry, Bhubaneswar.
- xvii. A Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xviii. Green belt shall be developed in at least 33% of the project area by planting native and broad leaved species in consultation with local DFO and local communities as per the CPCB guidelines.
- xix. All the commitments made to the public during Public Hearing/public consultation meeting shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xx. An amount of Rs. 458 crores shall be earmarked towards the Enterprise Social Commitment for a period of 10 years for implementing activities based on Public Hearing issues, local needs and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.
- xxi. The proponent shall prepare a detailed CSR Plan for every year for the next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise

(Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.

- xxii. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/procedure to bring into focus any infringement/deviation/ violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- xxiii. The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.
- xxiv. The project proponent shall provide for LED lights in their offices and residential areas.
- xxv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

B. GENERAL CONDITIONS:

- i. The project authorities must strictly adhere to the stipulations made by the Odisha Pollution Control Board and the State Government.
- ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).
- iii. At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM₁₀, PM_{2.5}, SO₂ and NO_x are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhubneswar and the SPCB/CPCB once in six months.
- iv. Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.

- v. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
- vi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- vii. The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.
- viii. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.
- ix. Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change (MoEFCC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhubaneswar. The funds so provided shall not be diverted for any other purpose.
- x. A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.
- xi. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEFCC at Bhubaneswar. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM₁₀, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- xii. The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEFCC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubaneswar / CPCB / SPCB shall monitor the stipulated conditions.
- xiii. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with

the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEFCC at Bhubaneswar by e-mail.

- xiv. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEFCC) at <http://envfor.nic.in>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bhubaneswar.
- xv. Project authorities 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 and the date of commencing the land development work.

10.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.


11.0 The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

12.0 The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.


(Dr. Satish C. Garkoti)
Scientist 'F'

Copy to:-

1. The Secretary, Department of Environment, Government of Odisha.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi, 110 032.
3. The Chairman, Orissa Pollution Control Board, "Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012.
4. The Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (EZ), A/3, Chandersekharpur, Bhubaneswar - 751023.
5. Guard File / Record File/Monitoring file.


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