

F. No. IA-J-11011/540/2017- IA-II(I)

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

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Dated: 1st February, 2018

To

**Director
JSW Cement Limited,
Village Toranagallu, P O Vidyanagar
District Bellary Karnataka -583275**

Subject: 4.0 MTPA Slag grinding & Mixing unit - Transfer of Environmental Clearance from Integrated Steel Plant of M/s JSW Steel Limited located near village Tornagallu, District Bellary in Karnataka to M/s JSW Cement Limited regarding.

Sir,

This has reference to your online proposal no. **IA/KA/IND/31502/2010**, dated **8th May 2017** and your communications dated 23rd May 2017; 28th June 2017; 20th July 2017; 11th August, 2017 for transfer of Environmental Clearance of 4.0 MTPA Slag grinding & Mixing unit from Integrated Steel Plant of M/s JSW Steel limited located near village Tornagallu, District Bellary in Karnataka to M/s JSW Cement limited.

2.0 The Environmental Clearance for the project was granted by the Ministry vide letter no. J-11011/489/2009-IA.II(I) dated 1st October, 2015 for expansion from 10 MTPA to 16 MTPA (with a configuration of 10+3+3 MTPA) and amendment in the EC was accorded by the Ministry vide letter of even no. dated 9th June, 2016 for change in the configuration as 10+2+4 MTPA Capacity.

3.0 Details of production capacities of various units of Steel Plant as per Environmental Clearance dated 1st October, 2015 with subsequent amendment dated 9th June, 2016 is given below:

Sl No.	Unit Name	At 4 MTPA	4 to 10 MTPA	10 to 16 MTPA	Total Capacity in MTPA
1	Beneficiation Plant	4.5	15	-	19.5
2	Pellet Plant	5	5	-	10
3	Sinter Plant	2.3	8.05	9.8	20.15
4	Coke Oven Non-Recovery	1.28	-	Dismantling of existing NR Coke ovens	0
5	Coke Oven Recovery	0	3.5	4.5	8
6	Hot Metal COREX	1.2	0	0	1.2
7	Hot Metal BF	3.07	6	6	15.07

8	Pig Caster(TPD)	1200	7200	3600	12000
9	SMS (EAF+BOF)	3.8	6	6	15.8
10	Lime Kiln(TPD)	1200	3600	2400	7200
11	Slab Caster	0	6.4	8.4	14.8
12	Billet Caster	-	1.5	1.2	2.7
13	HSM	2	6.2	3.6	11.8
14	WRM	0	0.6	1.2	1.8
15	Rebar Mill	0	1	0	1
16	BRM	0	0	1.2	1.2
17	CRM	0	3	0	3
18	Pipe Mill	0	0.4	-	0.4
19	Galvanizing Line	0	1	-	1
20	Colour coating	0	0.5	-	0.5
21	Captive power plant (MW)	230	600	660	1390
22	Incinerator (Kg/hr)	0	750	250	1000
23	Slag grinding	1.6	2.6	2	6.2
24	Oxygen Plant(TPD)	500	4500	3600	10600
25	Township(Nos)	2	2	1	5

4.0 M/s JSW Steel Limited has proposed to transfer of 4.0 MTPA Slag grinding & Mixing unit out of 6.2 MTPA Slag grinding & Mixing unit(s) granted Environmental Clearance vide Sl. No. 23 of table of para 2 of the F.No. J-11011/489/2009-IA.(I) read with subsequent amendment vide even number dated 9th June, 2016 to M/s JSW Cement Limited.

5.0 It was reported that the 4.0 MTPA Slag grinding & Mixing Unit is located within the premises of the Integrated Steel Plant of M/s JSW Steel Limited with the bounded coordinates as give below:

Sl.	Latitude	Longitude
E	15°11'1.36" N	76°42'1.12" E
F	15°10'57.52" N	76°42'4.45" E
G	15°10'48.23" N	76°42'9.63" E
H	15°10'39.13" N	76°42'11.14" E
I	15°10'17.15" N	76°41'56.34" E
J	15°10'24.50" N	76°41'43.02" E

6.0 Details of the raw material requirement for the proposed transfer of 4.0 MTPA Slag grinding and mixing unit is as follows:

Sl.	Description	Quantity (MTPA)
1	Blast Furnace Salg	4.2
2	Clinker	1.7
3	Coal	0.04
4	Gypsum	0.17
5	Oxygen	1200 Nm ³ /h
6	Coke Oven gas	7500 Nm ³ /h

7.0 The water requirement for the grinding unit will be 565 m³/day will be drawn within the 72 MGD allotted by the Government of Karnataka. The power requirement will be 32 MW.

8.0 The capital cost of the 4.0 MTPA Slag grinding unit is Rs. 600 Crs and the Rs. 20 Crs will be earmarked for the Environmental Protection measures as a capital.

9.0 The process *inter alia* include the granulated BF slag will be obtained from JSW Steel is obtained and stored in open area; the wet slag is dried in a drier to remove moisture before grinding in vertical and roller press type grinding machines; the ground materials are stored in separate silos; these ground products are then blended in suitable proportions to get OPC, PPC and PSC; and the finished products are dispatched both in bulk in tankers or in bags.

10.0 No court case or violation under EIA Notification, 2006 to the project or related activity reported by project proponent.

11.0 The proposal was considered in the Expert Appraisal Committee (Industry-I) in its 19th meeting held during 8th – 9th June 2017; 20th meeting held during 10th – 11th July 2017 and 21st meeting held during 10th – 11th August, 2017.

12.0 After detailed deliberations, the committee recommended for the transfer of EC of 4.0 MTPA Slag Grinding and Mixing unit from M/s JSW Steel Limited (parent company) to M/s JSW Cement Limited (new company) with specific and general conditions.

13.0 The Ministry of Environment, Forest and Climate Change, based on the recommendations of the Expert Appraisal Committee (Industry-I), hereby decided to transfer the Environmental Clearance of 4.0 MTPA Slag Grinding and Mixing unit(s) from Environmental Clearance granted to 6.2 MTPA Slag Grinding and Mixing unit(s) as a part of Integrated Steel Plant of M/s JSW Steel Limited (parent company) to M/s JSW Cement Limited (new company) under clause 11 of EIA Notification, 2006 and subsequent amendments subject to strict compliance of the following Specific and General conditions:

A. Specific Conditions:

- i. The project proponent should install 24x7 air and water monitoring devices to monitor air emission and effluent discharge, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. All the conditions stipulated by the Standing Committee of the National Board for Wildlife should be effectively implemented.
- iii. The PP shall participate in a Wildlife Conservation Plan for Sloth Bears and other schedule-1 fauna found in the study area and in the Daroji Bear Sanctuary. The Conservation Plan shall be prepared in consultation with the State Wildlife Department. The Plan with various activities including creation of water bodies, elimination of weeds, eco-regeneration plan including regeneration of fruit bearing trees and improvement of ecological habitat and support to the nearby villages to minimize dependency on forest produce for fuel shall contain budgetary support with details of capital and revenue costs for various activities, the details of expenditure made on which shall be regularly submitted as part of the Compliance Report to Regional Office, Bangalore.

- iv. The PP shall obtain assured raw materials (particularly Blast Furnace slag, Clinker and coal) from designated sources for long-term supply and shall enter into long-term MOUs with producers/sellers of raw materials used. Washed coal shall be used
- v. All the units of the expansion project shall operate using state-of-art energy efficient technologies, environmental pollution prevention and control technologies and energy efficient measures including the 4Rs shall be implemented at every step of the plant operation.
- vi. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz, Electrostatic precipitator (ESP) and bag filters etc. shall be provided to keep the emission levels of particulates below 50 mg/Nm³ from stacks and also meet level of the 50 µg/m³ in work zone.
- vii. Air Pollution control measures shall include Pulse Jet Bag Filter & DSS in yards. Vents in storage tanks.
- viii. In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.
- ix. 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
- x. The plant shall develop rail track for conveying slag from JSW Steel to JSW Cement.
- xi. Detailed unit-wise Risk Analysis and Assessment and detailed on-site and off-site Emergency Preparedness and Disaster Management Plan (DMP) linked to District- level DMP shall be prepared in consultation with district authorities and mock drills carried out periodically.
- xii. 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, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB.
- xiii. BF Slag shall be used for cement making.
- xiv. Total water requirement for the facility shall be provided from JSW Steel Ltd, and shall not exceed 565 m³/day. The blow down from the system shall be used for greenbelt development. The effluent from domestic sources shall also be used for green belt development after treatment in septic tank and soaking pits. No effluent shall be discharged outside the factory premises. "Zero Liquid Discharge" shall be followed strictly as proposed.
- xv. The proponent shall adopt water conservation measures to reduce requirement of make-up water. The wastewater generated from the

- indirect cooling circuit shall be routed through the cooling tower. The domestic wastewater shall be treated in a Sewage Treatments plant (STP) and used for dust suppression and green belt development
- xvi. Efforts shall further be made to use maximum water from the rain water harvesting sources to reduce intake of water from Almatti and Tungabhadra Dam. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.
- xvii. 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 E(P) Act whichever are more stringent. Leachate study for the effluents generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB.
- xviii. Green belt shall be developed in 33% of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO
- xix. The entire power requirement shall be met from the Captive Power Plant [Existing Gas based (100 MW +130 MW); 2x300 MW (coal based 50% Indian coal and 50% Imported Coal); proposed 660 MW(super critical)] of 1490 MW of M/s JSW Steel Limited.
- xx. The environment wing of the company and for this Plant as well as of the company shall be strengthened with qualified personnel, state-of-art laboratory, infrastructure, etc and regular records of the environmental data including on-line monitoring-of emissions shall be maintained.
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xxi. Company shall develop an HSE Policy. All the permanent workers shall be covered under ESI Scheme. The company shall have the provision for treatment of its workers at the local sub-committee Nursing Homes & Hospitals in case of emergency. Annual Medical Check-up on some medical parameters like Blood test, Chest X-Ray, Eye test. Audiometry, Spirometry etc. shall be regularly conducted amongst the employees of the Company and records maintained thereof.
- xxii. A CSR Plan shall be prepared and implemented in consultation with the local villages and administration. Issues raised/covered during public hearing and incorporated in the EMP and CSR Plan. During construction phase of the expansion project, an expenditure of about minimum 5% of the capital expenditure shall be earmarked for CSR activity covering the broad areas of education, health, infrastructure, water and power spread over 5 years/period of construction of project. During operation phase of the project, the CSR activity will be funded based on 2% of the profit during operation phase of the project. 70% of the employment shall be made from the local population. The activities shall include skill development, education for the girl child, common infrastructure, alternate livelihood schemes and creation of SHGs, etc. The PP shall as part of the CSR Plan meet the drinking water requirements (pipeline) of neighboring villages from the State authorities. In addition, villages such as

Dharmasagara and Bandri, which have a fluoride problem shall also be provided drinking water. All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 05.10.2010 shall be satisfactorily implemented and details of which shall be furnished as part of CSR. A separate budget for implementing the same shall be allocated made. The annual capital and recurring expenditure on CSR -village-wise and activity-wise shall be uploaded on the company website and also included in the Annual Report of the company to the Ministry's Regional Office at Bangalore.

- xxiii. The Company shall submit within three months its policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/ procedure to being into focus a 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 noncompliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- xxiv. 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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

B. General Conditions

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- i. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change (MoEFCC).
 - ii. 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, PM2.5, SO2 and NOx 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 Bangalore and the SPCB/CPCB once in six months.
 - iii. 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 from time to time. The treated wastewater shall be utilized for plantation purpose.
 - iv. The overall noise levels in and around the plant area shall be kept well within the standards (85 dB A) 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).
 - v. Vehicular transportation of raw materials and finished products shall be kept to minimum. Dust suppression systems shall be in

place at transfer points. 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.

- vi. 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 Bangalore. The funds so provided shall not be diverted for any other purpose.
- vii. 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.
- viii. 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 Bangalore. 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.
- ix. M 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-mail) to the Regional, Office of MOEFCC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bangalore / CPCB / SPCB shall monitor the stipulated conditions.
- x. The environmental statement for each financial year ending 31st March in Form-Vas 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 Bangalore by e-mail
- xi. 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, Forest 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 Bangalore.

- xii. 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.

14.0 M/s JSW Cement limited shall abide by all the commitments and recommendations made in the EIA/EMP report and that during presentation to the EAC; commitments made during the Public hearing held on 30.12.2010 for Integrated Steel Plant.

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

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

17.0 The PP shall ensure no change in the pollution load; and no conflict in sharing in common facilities in day to day operations.

18.0 All the liabilities regarding environmental issues of slag grinding unit will be the responsibility of the new company i.e. M/s JSW Cement Limited.

19.0 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 and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

20.0 This Environmental Clearance is transfer of slag grinding and mixing unit (4.0 MTPA) which was part of Environmental Clearance vide J-11011/489/2009-IA.II(I) dated 1stOctober, 2015 read with amendment in the EC vide letter of even no. dated 9thJune, 2016.

20.0 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.

This issues with the approval of Competent Authority.


(Sharath Kumar Pallerla)
Scientist 'F' / Director

Copy to:-

1. **The Secretary**, Department of Environment, Government of Karnataka, Multi Storied Building, Bangalore-560 001.
2. **The Secretary**, Department of Forests, Government of Karnataka, Bangalore-560003
3. **The Additional Principal Chief Conservator of Forests (C)**, Ministry of Environment, Forest and Climate Change, Regional Office (SZ), KendriyaSadan, 4th Floor, E&F Wings, 17th Main Road, Koramangala II Block, Bangalore - 560034

4. **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
5. **The Chairman**, Karnataka State Pollution Control Board, No. 25, 6th - 9th Floor, Public Utility Building, M.G. Road, Bangalore - 560 001.
6. **The Member Secretary**, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
7. **The District Collector, Raigarh** District, Karnataka.
8. **Guard File / Record file / Monitoring file.**
9. **MOEF&CC Website.**

Sharath Kumar Pallerla
1/2/18

(Sharath Kumar Pallerla)
Scientist 'F'/Director

